



# **HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm)**

**Draft Standard for Trial Use Release 2.1**

**Draft Standard for Trial Use**

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## **Volume 2 — Templates and Supporting Material**

**Sponsored by:**  
**Structured Documents Work Group**  
**Patient Care Work Group**  
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## **Structure of This Guide**

Two volumes comprise this *HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes R2.1*. Volume 1 provides narrative introductory and background material pertinent to this implementation guide, including information on how to understand and use the templates in Volume 2. Volume 2 contains the normative Clinical Document Architecture (CDA) templates for this guide along with lists of all templates, code systems, value sets, and changes from the previous version.

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## **2 DOCUMENT-LEVEL TEMPLATES**

Document-level templates describe the purpose and rules for constructing a conforming CDA document. Document templates include constraints on the CDA header and indicate contained section-level templates.

Each document-level template contains the following information:

- Scope and intended use of the document type
- Description and explanatory narrative
- Template metadata (e.g., templateId)
- Header constraints (e.g., document type, template id, participants)
- Required and optional section-level templates

**Table 1: Required and Optional Sections for Each Document Type**

<b>Document Type Preferred LOINC templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<u>Care Plan</u> 56447-6 2.16.840.1.113883.10.20.22.1.15	<a href="#">Goals Section</a> <a href="#">Health Concerns Section</a>	<a href="#">Health Status Evaluations and Outcomes Section</a> <a href="#">Interventions Section (V3)</a>
<u>Consultation Note (V3)</u> 11488-4 2.16.840.1.113883.10.20.22.1.4:20 14-06-09	<a href="#">Allergies and Intolerances Section (entries required) (V3)</a> <a href="#">Assessment and Plan Section (V2) / Assessment Section / Plan of Treatment Section (V2)</a> * <a href="#">History of Present Illness Section</a> <a href="#">Reason for Visit Section<sup>1</sup></a> ** <a href="#">Problem Section (entries required) (V3)</a>	<a href="#">Advance Directives Section (entries optional) (V3)</a> <a href="#">Chief Complaint and Reason for Visit Section**</a> <a href="#">Chief Complaint Section**</a> <a href="#">Family History Section (V3)</a> <a href="#">Functional Status Section (V2)</a> <a href="#">General Status Section</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">Immunizations Section (entries optional) (V3)</a> <a href="#">Medical Equipment Section (V2)</a> <a href="#">Medications Section (entries required) (V2)</a> <a href="#">Mental Status Section (V2)</a> <a href="#">Nutrition Section</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Procedures Section (entries optional) (V2)</a> <a href="#">Results Section (entries required) (V3)</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a> <a href="#">Vital Signs Section (entries required) (V3)</a>

<sup>1</sup> Either Reason for Referral or Reason for Visit must be present.

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">Continuity of Care Document (CCD) (V3)</a> (Summarization of Episode Note) 34133-9 (required) 2.16.840.1.113883.10.20.22.1.2:20 14-06-09	<a href="#">Allergies and Intolerances Section (entries required) (V3)</a> <a href="#">Medications Section (entries required) (V2)</a> <a href="#">Problem Section (entries required) (V3)</a> <a href="#">Results Section (entries required) (V3)</a> <a href="#">Social History Section (V3)</a> <a href="#">Vital Signs Section (entries required) (V3)</a>	<a href="#">Advance Directives Section (entries optional) (V3)</a> <a href="#">Encounters Section (entries optional) (V3)</a> <a href="#">Family History Section (V3)</a> <a href="#">Functional Status Section (V2)</a> <a href="#">Immunizations Section (entries required) (V3)</a> <a href="#">Medical Equipment Section (V2)</a> <a href="#">Mental Status Section (V2)</a> <a href="#">Nutrition Section</a> <a href="#">Payers Section (V3)</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Procedures Section (entries required) (V2)</a>
<a href="#">Diagnostic Imaging Report (V3)</a> 18748-4 2.16.840.1.113883.10.20.22.1.5:20 14-06-09	<a href="#">Findings Section (DIR)</a>	<a href="#">Code Observations</a> <a href="#">DICOM Object Catalog Section - DCM 121181</a> <a href="#">Fetus Subject Context</a> <a href="#">Observer Context</a> <a href="#">Physician of Record Participant (V2)</a> <a href="#">Physician Reading Study Performer (V2)</a> <a href="#">Procedure Context</a> <a href="#">Quantity Measurement Observation</a> <a href="#">SOP Instance Observation</a> <a href="#">Text Observation</a>

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">Discharge Summary (V3)</a> (Discharge Summarization Note) 18842-5 2.16.840.1.113883.10.20.22.1.8:20 14-06-09	<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> <a href="#">Hospital Course Section</a> <a href="#">Discharge Diagnosis Section (V3)</a> <a href="#">Plan of Treatment Section (V2)</a>	<a href="#">Admission Diagnosis Section (V3)</a> <a href="#">Admission Medications Section (entries optional) (V3)</a> <a href="#">Chief Complaint and Reason for Visit Section**</a> <a href="#">Chief Complaint Section**</a> <a href="#">Discharge Diet Section (DEPRECATED)</a> <a href="#">Discharge Medications Section (entries optional) (V3)***</a> <a href="#">Discharge Medications Section (entries required) (V3)***</a> <a href="#">Family History Section (V3)</a> <a href="#">Functional Status Section (V2)</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">History of Present Illness Section</a> <a href="#">Hospital Consultations Section</a> <a href="#">Hospital Discharge Instructions Section</a> <a href="#">Hospital Discharge Physical Section</a> <a href="#">Hospital Discharge Studies Summary Section</a> <a href="#">Immunizations Section (entries optional) (V3)</a> <a href="#">Nutrition Section</a> <a href="#">Problem Section (entries optional) (V3)</a> <a href="#">Procedures Section (entries optional) (V2)</a> <a href="#">Reason for Visit Section**</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a> <a href="#">Vital Signs Section (entries optional) (V3)</a>

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">History and Physical (V3)</a> 34117-2 2.16.840.1.113883.10.20.22.1.3:20 14-06-09	<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> <a href="#">Assessment Section / Assessment and Plan Section (V2) / Plan of Treatment Section (V2)*</a> <a href="#">Chief Complaint and Reason for Visit Section**</a> <a href="#">Chief Complaint Section**</a> <a href="#">Family History Section (V3)</a> <a href="#">General Status Section</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">Medications Section (entries optional) (V2)</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Reason for Visit Section**</a> <a href="#">Results Section (entries optional) (V3)</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a> <a href="#">Vital Signs Section (entries optional) (V3)</a>	<a href="#">Assessment and Plan Section (V2)</a> <a href="#">Assessment Section</a> <a href="#">History of Present Illness Section</a> <a href="#">Immunizations Section (entries optional) (V3)</a> <a href="#">Instructions Section (V2)</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Problem Section (entries optional) (V3)</a> <a href="#">Procedures Section (entries optional) (V2)</a>
<a href="#">Operative Note (V3) (Surgical Operation Note)</a> 11504-8 2.16.840.1.113883.10.20.22.1.7:20 14-06-09	<a href="#">Anesthesia Section (V2)</a> <a href="#">Complications Section (V3)</a> <a href="#">Postoperative Diagnosis Section</a> <a href="#">Preoperative Diagnosis Section (V3)</a> <a href="#">Procedure Description Section</a> <a href="#">Procedure Estimated Blood Loss Section</a> <a href="#">Procedure Findings Section (V3)</a> <a href="#">Procedure Specimens Taken Section</a>	<a href="#">Operative Note Fluids Section</a> <a href="#">Operative Note Surgical Procedure Section</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Planned Procedure Section (V2)</a> <a href="#">Procedure Disposition Section</a> <a href="#">Procedure Implants Section</a> <a href="#">Procedure Indications Section (V2)</a> <a href="#">Surgical Drains Section</a>

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">Procedure Note (V3)</a> 28570-0 2.16.840.1.113883.10.20.22.1.6:20 14-06-09	<a href="#">Assessment Section / Assessment and Plan Section (V2) / Plan of Treatment Section (V2)*</a> <a href="#">Complications Section (V3)</a> <a href="#">Procedure Description Section</a> <a href="#">Postprocedure Diagnosis Section (V3)</a> <a href="#">Procedure Indications Section (V2)</a>	<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> <a href="#">Anesthesia Section (V2)</a> <a href="#">Assessment and Plan Section (V2)</a> <a href="#">Assessment Section</a> <a href="#">Chief Complaint and Reason for Visit Section</a> <a href="#">Chief Complaint Section</a> <a href="#">Family History Section (V3)</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">History of Present Illness Section</a> <a href="#">Medical (General) History Section</a> <a href="#">Medications Administered Section (V2)</a> <a href="#">Medications Section (entries optional) (V2)</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Planned Procedure Section (V2)</a> <a href="#">Procedure Disposition Section</a> <a href="#">Procedure Estimated Blood Loss Section</a> <a href="#">Procedure Findings Section (V3)</a> <a href="#">Procedure Implants Section</a> <a href="#">Procedure Specimens Taken Section</a> <a href="#">Procedures Section (entries optional) (V2)</a> <a href="#">Reason for Visit Section</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a>

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">Progress Note (V3)</a> (Subsequent Evaluation Note) 11506-3 2.16.840.1.113883.10.20.22.1.9:20 14-06-09 (open)]	<a href="#">Assessment Section</a> / <a href="#">Assessment and Plan Section (V2)</a> / <a href="#">Plan of Treatment Section (V2)</a> *	<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> <a href="#">Assessment and Plan Section (V2)</a> <a href="#">Assessment Section</a> <a href="#">Chief Complaint Section</a> <a href="#">Instructions Section (V2)</a> <a href="#">Interventions Section (V3)</a> <a href="#">Medications Section (entries optional) (V2)</a> <a href="#">Nutrition Section</a> <a href="#">Objective Section</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Problem Section (entries optional) (V3)</a> <a href="#">Results Section (entries optional) (V3)</a> <a href="#">Review of Systems Section</a> <a href="#">Subjective Section</a> <a href="#">Vital Signs Section (entries optional) (V3)</a>
<a href="#">Referral Note (V2)</a> 57133-1 2.16.840.1.113883.10.20.22.1.14	<a href="#">Allergies and Intolerances Section (entries required) (V2)</a> <a href="#">Assessment Section</a> / <a href="#">Assessment and Plan Section (V2)</a> / <a href="#">Plan of Treatment Section (V2)</a> * <a href="#">Medications Section (entries required) (V2)</a> <a href="#">Problem Section (entries required) (V3)</a> <a href="#">Reason for Referral Section (V2)</a>	<a href="#">Advance Directives Section (entries optional) (V3)</a> <a href="#">Assessment and Plan Section (V2)</a> <a href="#">Assessment Section</a> <a href="#">Family History Section (V3)</a> <a href="#">Functional Status Section (V2)</a> <a href="#">General Status Section</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">History of Present Illness Section</a> <a href="#">Immunizations Section (entries required) (V3)</a> <a href="#">Medical Equipment Section (V2)</a> <a href="#">Mental Status Section (V2)</a> <a href="#">Nutrition Section</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Plan of Treatment Section (V2)</a> <a href="#">Procedures Section (entries optional) (V2)</a> <a href="#">Results Section (entries required) (V3)</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a> <a href="#">Vital Signs Section (entries required) (V3)</a>

<b>Document Type</b> <b>Preferred LOINC</b> <b>templateId</b>	<b>Required Sections</b>	<b>Optional Sections</b>
<a href="#">Transfer Summary (V2)</a> 18761-7 2.16.840.1.113883.10.20.22.1.13	<a href="#">Allergies and Intolerances Section (entries required) (V3)</a> <a href="#">Assessment Section/Assessment and Plan Section (V2) /Plan of Treatment Section (V2)*</a> <a href="#">Medications Section (entries required) (V2)</a> <a href="#">Problem Section (entries required) (V3)</a> <a href="#">Reason for Referral Section (V2)</a> <a href="#">Results Section (entries required) (V3)</a> <a href="#">Vital Signs Section (entries required) (V3)</a>	<a href="#">Admission Diagnosis Section (V3)</a> <a href="#">Admission Medications Section (entries optional) (V3)</a> <a href="#">Advance Directives Section (entries required) (V3)</a> <a href="#">Course of Care Section</a> <a href="#">Discharge Diagnosis Section (V3)</a> <a href="#">Encounters Section (entries required) (V3)</a> <a href="#">Family History Section (V3)</a> <a href="#">Functional Status Section (V2)</a> <a href="#">General Status Section</a> <a href="#">History of Past Illness Section (V3)</a> <a href="#">History of Present Illness Section</a> <a href="#">Immunizations Section (entries optional) (V3)</a> <a href="#">Medical Equipment Section (V2)</a> <a href="#">Mental Status Section (V2)</a> <a href="#">Nutrition Section</a> <a href="#">Payers Section (V3)</a> <a href="#">Physical Exam Section (V3)</a> <a href="#">Procedures Section (entries required) (V2)</a> <a href="#">Review of Systems Section</a> <a href="#">Social History Section (V3)</a>
<a href="#">Unstructured Document (V3)</a> Non-preferred 2.16.840.1.113883.10.20.22.1.10:2 014-06-09	N/A	N/A

\* Wherever referenced, intent is that either “Assessment and Plan” is present or both “Assessment” and “Plan of Care”. Only these combinations should be used.

\*\* Wherever referenced, intent is that either Chief Complaint/Reason for Visit Section is present or Chief Complaint Section and/or Reason for Visit unique Sections should be present.

\*\*\*Only one Discharge Medications Section should be present.

## 2.1 US Realm Header (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01 (open)]

**Table 2: US Realm Header (V3) Contexts**

<b>Contained By:</b>	<b>Contains:</b>
	<a href="#">US Realm Patient Name (PTN.US.FIELDDED) (required)</a> <a href="#">US Realm Address (AD.US.FIELDDED) (optional)</a>

<b>Contained By:</b>	<b>Contains:</b>
	<p><a href="#">US Realm Address (AD.US.FIELDED)</a> (required)</p> <p><a href="#">US Realm Person Name (PN.US.FIELDED)</a> (optional)</p> <p><a href="#">US Realm Date and Time (DTM.US.FIELDED)</a> (optional)</p> <p><a href="#">US Realm Date and Time (DTM.US.FIELDED)</a> (required)</p>

This template defines constraints that represent common administrative and demographic concepts for US Realm CDA documents. Further specification, such as ClinicalDocument/code, are provided in document templates that conform to this template.

**Table 3: US Realm Header (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01)					
realmCode	1..1	SHALL		<a href="#">1198-16791</a>	US
typeId	1..1	SHALL		<a href="#">1198-5361</a>	
@root	1..1	SHALL		<a href="#">1198-5250</a>	2.16.840.1.113883.1.3
@extension	1..1	SHALL		<a href="#">1198-5251</a>	POCD_HD000040
templateId	1..1	SHALL		<a href="#">1198-5252</a>	
@root	1..1	SHALL		<a href="#">1198-10036</a>	2.16.840.1.113883.10.20.22.1.1
@extension	1..1	SHALL		<a href="#">1198-32503</a>	2015-08-01
id	1..1	SHALL		<a href="#">1198-5363</a>	
code	1..1	SHALL		<a href="#">1198-5253</a>	
title	1..1	SHALL		<a href="#">1198-5254</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-5256</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.4</a>
confidentialityCode	1..1	SHALL		<a href="#">1198-5259</a>	urn:oid:2.16.840.1.113883.1.11.16926 (HL7 BasicConfidentialityKind)
languageCode	1..1	SHALL		<a href="#">1198-5372</a>	urn:oid:2.16.840.1.113883.1.11.11526 (Language)
setId	0..1	MAY		<a href="#">1198-5261</a>	
versionNumber	0..1	MAY		<a href="#">1198-5264</a>	
recordTarget	1..*	SHALL		<a href="#">1198-5266</a>	
patientRole	1..1	SHALL		<a href="#">1198-5267</a>	
id	1..*	SHALL		<a href="#">1198-5268</a>	
addr	1..*	SHALL		<a href="#">1198-5271</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2</a>

telecom	1..*	SHALL		<a href="#">1198-5280</a>	
@use	0..1	SHOULD		<a href="#">1198-5375</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm Header))
patient	1..1	SHALL		<a href="#">1198-5283</a>	
name	1..*	SHALL		<a href="#">1198-5284</a>	<a href="#">US Realm Patient Name (PTN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1)</a>
administrativeGenderCode	1..1	SHALL		<a href="#">1198-6394</a>	urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3))
birthTime	1..1	SHALL		<a href="#">1198-5298</a>	
maritalStatusCode	0..1	SHOULD		<a href="#">1198-5303</a>	urn:oid:2.16.840.1.113883.1.11.12212 (Marital Status)
religiousAffiliationCode	0..1	MAY		<a href="#">1198-5317</a>	urn:oid:2.16.840.1.113883.1.11.19185 (Religious Affiliation)
raceCode	1..1	SHALL		<a href="#">1198-5322</a>	urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Race Category Excluding Nulls)
sdtc:raceCode	0..*	MAY		<a href="#">1198-7263</a>	urn:oid:2.16.840.1.113883.1.11.14914 (Race)
ethnicGroupCode	1..1	SHALL		<a href="#">1198-5323</a>	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)
sdtc:ethnicGroupCode	0..*	MAY		<a href="#">1198-32901</a>	urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity)
guardian	0..*	MAY		<a href="#">1198-5325</a>	
code	0..1	SHOULD		<a href="#">1198-5326</a>	urn:oid:2.16.840.1.113883.11.20.12.1 (Personal And Legal Relationship Role Type)
addr	0..*	SHOULD		<a href="#">1198-5359</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2)</a>
telecom	0..*	SHOULD		<a href="#">1198-5382</a>	
@use	0..1	SHOULD		<a href="#">1198-7993</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
guardianPerson	1..1	SHALL		<a href="#">1198-5385</a>	
name	1..*	SHALL		<a href="#">1198-5386</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1)</a>

birthplace	0..1	MAY		<a href="#">1198-5395</a>	
place	1..1	SHALL		<a href="#">1198-5396</a>	
addr	1..1	SHALL		<a href="#">1198-5397</a>	
country	0..1	SHOULD		<a href="#">1198-5404</a>	urn:oid:2.16.840.1.113883.3.88. 12.80.63 (Country)
languageCommunication	0..*	SHOULD		<a href="#">1198-5406</a>	
languageCode	1..1	SHALL		<a href="#">1198-5407</a>	urn:oid:2.16.840.1.113883.1.11. 11526 (Language)
modeCode	0..1	MAY		<a href="#">1198-5409</a>	urn:oid:2.16.840.1.113883.1.11. 12249 (LanguageAbilityMode)
proficiencyLevelCode	0..1	SHOULD		<a href="#">1198-9965</a>	urn:oid:2.16.840.1.113883.1.11. 12199 (LanguageAbilityProficiency)
preferenceInd	0..1	SHOULD		<a href="#">1198-5414</a>	
providerOrganization	0..1	MAY		<a href="#">1198-5416</a>	
id	1..*	SHALL		<a href="#">1198-5417</a>	
@root	0..1	SHOULD		<a href="#">1198-16820</a>	2.16.840.1.113883.4.6
name	1..*	SHALL		<a href="#">1198-5419</a>	
telecom	1..*	SHALL		<a href="#">1198-5420</a>	
@use	0..1	SHOULD		<a href="#">1198-7994</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm Header))
addr	1..*	SHALL		<a href="#">1198-5422</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2</a>
author	1..*	SHALL		<a href="#">1198-5444</a>	
time	1..1	SHALL		<a href="#">1198-5445</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.4</a>
assignedAuthor	1..1	SHALL		<a href="#">1198-5448</a>	
id	1..*	SHALL		<a href="#">1198-5449</a>	
id	0..1	SHOULD		<a href="#">1198-32882</a>	

@nullFlavor	0..1	MAY		<a href="#">1198-32883</a>	urn:oid:2.16.840.1.113883.5.10 08 (HL7NullFlavor) = UNK
@root	1..1	SHALL		<a href="#">1198-32884</a>	2.16.840.1.113883.4.6
@extension	0..1	SHOULD		<a href="#">1198-32885</a>	
code	0..1	SHOULD		<a href="#">1198-16787</a>	
@code	1..1	SHALL		<a href="#">1198-16788</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1198-5452</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5428</a>	
@use	0..1	SHOULD		<a href="#">1198-7995</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm Header))
assignedPerson	0..1	SHOULD		<a href="#">1198-5430</a>	
name	1..*	SHALL		<a href="#">1198-16789</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1)</a>
assignedAuthoringDevice	0..1	SHOULD		<a href="#">1198-16783</a>	
manufacturerModelName	1..1	SHALL		<a href="#">1198-16784</a>	
softwareName	1..1	SHALL		<a href="#">1198-16785</a>	
dataEnterer	0..1	MAY		<a href="#">1198-5441</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5442</a>	
id	1..*	SHALL		<a href="#">1198-5443</a>	
@root	0..1	SHOULD		<a href="#">1198-16821</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-32173</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1198-5460</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5466</a>	

@use	0..1	SHOULD		<a href="#">1198-7996</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5469</a>	
name	1..*	SHALL		<a href="#">1198-5470</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1</a>
informant	0..*	MAY		<a href="#">1198-8001</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-8002</a>	
id	1..*	SHALL		<a href="#">1198-9945</a>	
code	0..1	MAY		<a href="#">1198-32174</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1198-8220</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2</a>
assignedPerson	1..1	SHALL		<a href="#">1198-8221</a>	
name	1..*	SHALL		<a href="#">1198-8222</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1</a>
informant	0..*	MAY		<a href="#">1198-31355</a>	
relatedEntity	1..1	SHALL		<a href="#">1198-31356</a>	
custodian	1..1	SHALL		<a href="#">1198-5519</a>	
assignedCustodian	1..1	SHALL		<a href="#">1198-5520</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">1198-5521</a>	
id	1..*	SHALL		<a href="#">1198-5522</a>	
@root	0..1	SHOULD		<a href="#">1198-16822</a>	2.16.840.1.113883.4.6
name	1..1	SHALL		<a href="#">1198-5524</a>	
telecom	1..1	SHALL		<a href="#">1198-5525</a>	
@use	0..1	SHOULD		<a href="#">1198-7998</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm

					Header))
addr	1..1	SHALL		<a href="#">1198-5559</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2</a>
informationRecipient	0..*	MAY		<a href="#">1198-5565</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-5566</a>	
id	0..*	MAY		<a href="#">1198-32399</a>	
informationRecipient	0..1	MAY		<a href="#">1198-5567</a>	
name	1..*	SHALL		<a href="#">1198-5568</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1</a>
receivedOrganization	0..1	MAY		<a href="#">1198-5577</a>	
name	1..1	SHALL		<a href="#">1198-5578</a>	
legalAuthenticator	0..1	SHOULD		<a href="#">1198-5579</a>	
time	1..1	SHALL		<a href="#">1198-5580</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.4</a>
signatureCode	1..1	SHALL		<a href="#">1198-5583</a>	
@code	1..1	SHALL		<a href="#">1198-5584</a>	urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S
sdtc:signatureText	0..1	MAY		<a href="#">1198-30810</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5585</a>	
id	1..*	SHALL		<a href="#">1198-5586</a>	
@root	0..1	MAY		<a href="#">1198-16823</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-17000</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1198-5589</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2</a>
telecom	1..*	SHALL		<a href="#">1198-5595</a>	
@use	0..1	SHOULD		<a href="#">1198-</a>	urn:oid:2.16.840.1.113883.11.2

				<a href="#">7999</a>	0.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5597</a>	
name	1..*	SHALL		<a href="#">1198-5598</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1</a>
authenticator	0..*	MAY		<a href="#">1198-5607</a>	
time	1..1	SHALL		<a href="#">1198-5608</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.4</a>
signatureCode	1..1	SHALL		<a href="#">1198-5610</a>	
@code	1..1	SHALL		<a href="#">1198-5611</a>	urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S
sdtc:signatureText	0..1	MAY		<a href="#">1198-30811</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5612</a>	
id	1..*	SHALL		<a href="#">1198-5613</a>	
@root	0..1	SHOULD		<a href="#">1198-16824</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-16825</a>	
@code	0..1	MAY		<a href="#">1198-16826</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1198-5616</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.2</a>
telecom	1..*	SHALL		<a href="#">1198-5622</a>	
@use	0..1	SHOULD		<a href="#">1198-8000</a>	urn:oid:2.16.840.1.113883.11.2 0.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5624</a>	
name	1..*	SHALL		<a href="#">1198-5625</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1</a>
participant	0..*	MAY		<a href="#">1198-10003</a>	
time	0..1	MAY		<a href="#">1198-</a>	

				<a href="#">10004</a>	
inFulfillmentOf	0..*	MAY		<a href="#">1198-9952</a>	
order	1..1	SHALL		<a href="#">1198-9953</a>	
id	1..*	SHALL		<a href="#">1198-9954</a>	
documentationOf	0..*	MAY		<a href="#">1198-14835</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-14836</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-14837</a>	
low	1..1	SHALL		<a href="#">1198-14838</a>	
performer	0..*	SHOULD		<a href="#">1198-14839</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14840</a>	urn:oid:2.16.840.1.113883.1.11.19601 (x_ServiceEventPerformer)
functionCode	0..1	MAY		<a href="#">1198-16818</a>	
@code	0..1	SHOULD		<a href="#">1198-32889</a>	urn:oid:2.16.840.1.113883.1.11.10267 (ParticipationFunction)
assignedEntity	1..1	SHALL		<a href="#">1198-14841</a>	
id	1..*	SHALL		<a href="#">1198-14846</a>	
@root	0..1	SHOULD		<a href="#">1198-14847</a>	2.16.840.1.113883.4.6
code	0..1	SHOULD		<a href="#">1198-14842</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
authorization	0..*	MAY		<a href="#">1198-16792</a>	
consent	1..1	SHALL		<a href="#">1198-16793</a>	
id	0..*	MAY		<a href="#">1198-16794</a>	
code	0..1	MAY		<a href="#">1198-16795</a>	
statusCode	1..1	SHALL		<a href="#">1198-16797</a>	
@code	1..1	SHALL		<a href="#">1198-16798</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = completed
componentOf	0..1	MAY		<a href="#">1198-9955</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">9956</a>	
id	1..*	SHALL		<a href="#">1198-9959</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-9958</a>	

## 2.1.1 Properties

### 2.1.1.1 realmCode

1. **SHALL** contain exactly one [1..1] **realmCode**="US" (CONF:1198-16791).
2. **SHALL** contain exactly one [1..1] **typeId** (CONF:1198-5361).
  - a. This typeId **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.1.3" (CONF:1198-5250).
  - b. This typeId **SHALL** contain exactly one [1..1] **@extension**="POCD\_HD000040" (CONF:1198-5251).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-5252) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.1" (CONF:1198-10036).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32503).
4. **SHALL** contain exactly one [1..1] **id** (CONF:1198-5363).
  - a. This id **SHALL** be a globally unique identifier for the document (CONF:1198-9991).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-5253).
  - a. This code **SHALL** specify the particular kind of document (e.g., History and Physical, Discharge Summary, Progress Note) (CONF:1198-9992).
  - b. This code **SHALL** be drawn from the LOINC document type ontology (LOINC codes where SCALE = DOC) (CONF:1198-32948).
6. **SHALL** contain exactly one [1..1] **title** (CONF:1198-5254).
 

Note: The title can either be a locally defined name or the displayName corresponding to clinicalDocument/code
7. **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet [HL7 BasicConfidentialityKind](#) urn:oid:2.16.840.1.113883.1.11.16926 **STATIC** (CONF:1198-5259).
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [Language](#) urn:oid:2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:1198-5372).
10. **MAY** contain zero or one [0..1] **setId** (CONF:1198-5261).
  - a. If setId is present versionNumber **SHALL** be present (CONF:1198-6380).
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:1198-5264).
  - a. If versionNumber is present setId **SHALL** be present (CONF:1198-6387).

### 2.1.1.2 recordTarget

The recordTarget records the administrative and demographic data of the patient whose health information is described by the clinical document; each recordTarget must contain at least one patientRole element

12. **SHALL** contain at least one [1..\*] **recordTarget** (CONF:1198-5266).

- a. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole** (CONF:1198-5267).
  - i. This patientRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-5268).
  - ii. This patientRole **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271).
  - iii. This patientRole **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5280).
    1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#)  
urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-5375).
  - iv. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:1198-5283).
    1. This patient **SHALL** contain at least one [1..\*] [US Realm Patient Name \(PTN.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.1) (CONF:1198-5284).
    2. This patient **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet [Administrative Gender \(HL7 V3\)](#)  
urn:oid:2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:1198-6394).
    3. This patient **SHALL** contain exactly one [1..1] **birthTime** (CONF:1198-5298).
      - a. **SHALL** be precise to year (CONF:1198-5299).
      - b. **SHOULD** be precise to day (CONF:1198-5300).

For cases where information about newborn's time of birth needs to be captured.

- c. **MAY** be precise to the minute (CONF:1198-32418).
4. This patient **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet [Marital Status](#)  
urn:oid:2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:1198-5303).
5. This patient **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet [Religious Affiliation](#)  
urn:oid:2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:1198-5317).
6. This patient **SHALL** contain exactly one [1..1] **raceCode**, which **SHALL** be selected from ValueSet [Race Category Excluding Nulls](#)

- urn:oid:2.16.840.1.113883.3.2074.1.1.3 **DYNAMIC** (CONF:1198-5322).
7. This patient **MAY** contain zero or more [0..\*] **sdtc:raceCode**, which **SHALL** be selected from ValueSet [Race](#)  
urn:oid:2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:1198-7263).
- Note: The sdtc:raceCode is only used to record additional values when the patient has indicated multiple races or additional race detail beyond the five categories required for Meaningful Use Stage 2. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the additional raceCode elements.
- a. If sdtc:raceCode is present, then the patient **SHALL** contain [1..1] raceCode (CONF:1198-31347).
8. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet [Ethnicity](#)  
urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:1198-5323).
9. This patient **MAY** contain zero or more [0..\*] **sdtc:ethnicGroupCode**, which **SHALL** be selected from ValueSet [Detailed Ethnicity](#)  
urn:oid:2.16.840.1.114222.4.11.877 **DYNAMIC** (CONF:1198-32901).
10. This patient **MAY** contain zero or more [0..\*] **guardian** (CONF:1198-5325).
  - a. The guardian, if present, **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-5326).
  - b. The guardian, if present, **SHOULD** contain zero or more [0..\*] [US Realm Address \(AD.US.FIELDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5359).
  - c. The guardian, if present, **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-5382).
    - i. The telecom, if present, **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#)  
urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7993).
  - d. The guardian, if present, **SHALL** contain exactly one [1..1] **guardianPerson** (CONF:1198-5385).
    - i. This guardianPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDED\)](#) (identifier:

urn:oid:2.16.840.1.113883.10.20.22.5.1.1)  
(CONF:1198-5386).

11. This patient **MAY** contain zero or one [0..1] **birthplace** (CONF:1198-5395).

a. The birthplace, if present, **SHALL** contain exactly one [1..1] **place** (CONF:1198-5396).

i. This place **SHALL** contain exactly one [1..1] **addr** (CONF:1198-5397).

1. This addr **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet [Country](#) urn:oid:2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404).

2. If country is US, this addr **SHALL** contain exactly one [1..1] state, which **SHALL** be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 **DYNAMIC** (CONF:1198-5402).

Note: A nullFlavor of ' UNK' may be used if the state is unknown.

3. If country is US, this addr **MAY** contain zero or one [0..1] postalCode, which **SHALL** be selected from ValueSet PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:1198-5403).

12. This patient **SHOULD** contain zero or more [0..\*] **languageCommunication** (CONF:1198-5406).

a. The languageCommunication, if present, **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [Language](#) urn:oid:2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:1198-5407).

b. The languageCommunication, if present, **MAY** contain zero or one [0..1] **modeCode**, which **SHALL** be selected from ValueSet [LanguageAbilityMode](#) urn:oid:2.16.840.1.113883.1.11.12249 **DYNAMIC** (CONF:1198-5409).

c. The languageCommunication, if present, **SHOULD** contain zero or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet [LanguageAbilityProficiency](#) urn:oid:2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:1198-9965).

d. The languageCommunication, if present, **SHOULD** contain zero or one [0..1] **preferenceInd** (CONF:1198-5414).

v. This patientRole **MAY** contain zero or one [0..1] **providerOrganization** (CONF:1198-5416).

1. The providerOrganization, if present, **SHALL** contain at least one [1..\*] **id** (CONF:1198-5417).

- a. Such ids **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16820).
- 2. The providerOrganization, if present, **SHALL** contain at least one [1..\*] name (CONF:1198-5419).
- 3. The providerOrganization, if present, **SHALL** contain at least one [1..\*] telecom (CONF:1198-5420).
  - a. Such telecoms **SHOULD** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7994).
- 4. The providerOrganization, if present, **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5422).

#### 2.1.1.3 author

The author element represents the creator of the clinical document. The author may be a device or a person.

- 13. **SHALL** contain at least one [1..\*] **author** (CONF:1198-5444).
  - a. Such authors **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5445).
  - b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1198-5448).
    - i. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:1198-5449).

If this assignedAuthor is an assignedPerson

- ii. This assignedAuthor **SHOULD** contain zero or one [0..1] **id** (CONF:1198-32882) such that it

If id with @root="2.16.840.1.113883.4.6" National Provider Identifier is unknown then

- 1. **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32883).
- 2. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-32884).
- 3. **SHOULD** contain zero or one [0..1] @extension (CONF:1198-32885).

Only if this assignedAuthor is an assignedPerson should the assignedAuthor contain a code.

- iii. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:1198-16787).
  - 1. The code, if present, **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-16788).

- iv. This assignedAuthor **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5452).
- v. This assignedAuthor **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5428).
  - 1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7995).
- vi. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson** (CONF:1198-5430).
  - 1. The assignedPerson, if present, **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-16789).
- vii. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:1198-16783).
  - 1. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **manufacturer modelName** (CONF:1198-16784).
  - 2. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **softwareName** (CONF:1198-16785).
- viii. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:1198-16790).

#### 2.1.1.4 dataEnterer

The dataEnterer element represents the person who transferred the content, written or dictated, into the clinical document. To clarify, an author provides the content found within the header or body of a document, subject to their own interpretation; a dataEnterer adds an author's information to the electronic system.

- 14. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:1198-5441).
  - a. The dataEnterer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5442).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-5443).
      - 1. Such ids **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:1198-16821).
    - ii. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32173).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5460).
    - iv. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5466).

1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#)  
urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7996).
- v. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-5469).
  1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5470).

#### 2.1.1.5 informant

The informant element describes an information source for any content within the clinical document. This informant is constrained for use when the source of information is an assigned health care provider for the patient.

15. **MAY** contain zero or more [0..\*] **informant** (CONF:1198-8001) such that it
  - a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-8002).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-9945).
      1. If assignedEntity/id is a provider then this id, **SHOULD** include zero or one [0..1] id where id/@root = "2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-9946).
    - ii. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#)  
urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32174).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-8220).
    - iv. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-8221).
      1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-8222).

#### 2.1.1.6 informant

The informant element describes an information source (who is not a provider) for any content within the clinical document. This informant would be used when the source of information has a personal relationship with the patient or is the patient.

16. **MAY** contain zero or more [0..\*] **informant** (CONF:1198-31355) such that it
  - a. **SHALL** contain exactly one [1..1] **relatedEntity** (CONF:1198-31356).

#### 2.1.1.7 custodian

The custodian element represents the organization that is in charge of maintaining and is entrusted with the care of the document.

There is only one custodian per CDA document. Allowing that a CDA document may not represent the original form of the authenticated document, the custodian represents the steward of the original source document. The custodian may be the document originator, a health information exchange, or other responsible party.

17. **SHALL** contain exactly one [1..1] **custodian** (CONF:1198-5519).

- a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:1198-5520).
  - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1198-5521).
    1. This representedCustodianOrganization **SHALL** contain at least one [1..\*] **id** (CONF:1198-5522).
      - a. Such ids **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:1198-16822).
    2. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:1198-5524).
    3. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** (CONF:1198-5525).
      - a. This telecom **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) **urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC** (CONF:1198-7998).
    4. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **US Realm Address (AD.US.FIELDDED)** (identifier: **urn:oid:2.16.840.1.113883.10.20.22.5.2**) (CONF:1198-5559).

#### 2.1.1.8 informationRecipient

The informationRecipient element records the intended recipient of the information at the time the document was created. In cases where the intended recipient of the document is the patient's health chart, set the receivedOrganization to the scoping organization for that chart.

18. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:1198-5565).

- a. The informationRecipient, if present, **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-5566).
  - i. This intendedRecipient **MAY** contain zero or more [0..\*] **id** (CONF:1198-32399).
  - ii. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:1198-5567).
    1. The informationRecipient, if present, **SHALL** contain at least one [1..\*] **US Realm Person Name (PN.US.FIELDDED)** (identifier: **urn:oid:2.16.840.1.113883.10.20.22.5.1.1**) (CONF:1198-5568).

- iii. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:1198-5577).
  - 1. The receivedOrganization, if present, **SHALL** contain exactly one [1..1] **name** (CONF:1198-5578).

#### 2.1.1.9 legalAuthenticator

The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated.

The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication.

All clinical documents have the potential for legal authentication, given the appropriate credentials.

Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system.

Note that the legal authenticator, if present, must be a person.

#### 19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:1198-5579).

- a. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5580).
- b. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-5583).
  - i. This signatureCode **SHALL** contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 **STATIC**) (CONF:1198-5584).

#### 2.1.1.10 sdtc:signatureText

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall 2013.

- c. The legalAuthenticator, if present, **MAY** contain zero or one [0..1] **sdtc:signatureText** (CONF:1198-30810).

Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:

- 1) Electronic signature: this attribute can represent virtually any electronic signature scheme.
- 2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.

- d. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5585).
  - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-5586).
    - 1. Such ids **MAY** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16823).
  - ii. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-17000).
  - iii. This assignedEntity **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5589).
  - iv. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5595).
    - 1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7999).
  - v. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-5597).
    - 1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5598).

### 2.1.1.11 authenticator

The authenticator identifies a participant or participants who attest to the accuracy of the information in the document.

20. **MAY** contain zero or more [0..\*] **authenticator** (CONF:1198-5607) such that it

- a. **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5608).
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-5610).
  - i. This signatureCode **SHALL** contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 **STATIC**) (CONF:1198-5611).

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall of 2013.

- c. **MAY** contain zero or one [0..1] **sdtc:signatureText** (CONF:1198-30811).

Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:

- 1) Electronic signature: this attribute can represent virtually any electronic signature scheme.

- 2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
- d. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5612).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-5613).
      - 1. Such ids **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16824).
    - ii. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:1198-16825).
      - 1. The code, if present, **MAY** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **STATIC** (CONF:1198-16826).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5616).
    - iv. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5622).
      - 1. Such telecoms **SHOULD** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-8000).
    - v. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-5624).
      - 1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5625).

#### 2.1.1.12 participant

The participant element identifies supporting entities, including parents, relatives, caregivers, insurance policyholders, guarantors, and others related in some way to the patient.

A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is playing multiple roles would be recorded in multiple participants (e.g., emergency contact and next-of-kin).

21. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-10003) such that it
- a. **MAY** contain zero or one [0..1] **time** (CONF:1198-10004).
  - b. **SHALL** contain associatedEntity/associatedPerson **AND/OR** associatedEntity/scopingOrganization (CONF:1198-10006).
  - c. When participant/@typeCode is **IND**, associatedEntity/@classCode **SHOULD** be selected from ValueSet 2.16.840.1.113883.11.20.9.33 INDRoleclassCodes **STATIC 2011-09-30** (CONF:1198-10007).

#### 2.1.1.13 inFulfillmentOf

The inFulfillmentOf element represents orders that are fulfilled by this document such as a radiologists' report of an x-ray.

22. **MAY** contain zero or more [0..\*] **inFulfillmentof** (CONF:1198-9952).

- a. The inFulfillmentOf, if present, **SHALL** contain exactly one [1..1] **order** (CONF:1198-9953).
  - i. This order **SHALL** contain at least one [1..\*] **id** (CONF:1198-9954).

#### 2.1.1.14 documentationOf

23. **MAY** contain zero or more [0..\*] **documentationof** (CONF:1198-14835).

A serviceEvent represents the main act being documented, such as a colonoscopy or a cardiac stress study. In a provision of healthcare serviceEvent, the care providers, PCP, or other longitudinal providers, are recorded within the serviceEvent. If the document is about a single encounter, the providers associated can be recorded in the componentOf/encompassingEncounter template.

- a. The documentationOf, if present, **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-14836).
  - i. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-14837).
    1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-14838).

#### 2.1.1.15 performer

The performer participant represents clinicians who actually and principally carry out the serviceEvent. In a transfer of care this represents the healthcare providers involved in the current or pertinent historical care of the patient. Preferably, the patient's key healthcare care team members would be listed, particularly their primary physician and any active consulting physicians, therapists, and counselors.

ii. This serviceEvent **SHOULD** contain zero or more [0..\*] **performer** (CONF:1198-14839).

1. The performer, if present, **SHALL** contain exactly one [1..1] **@typeCode**, which **SHALL** be selected from ValueSet [x\\_ServiceEventPerformer](#)  
urn:oid:2.16.840.1.113883.1.11.19601 **STATIC** (CONF:1198-14840).
2. The performer, if present, **MAY** contain zero or one [0..1] **functionCode** (CONF:1198-16818).
  - a. The functionCode, if present, **SHOULD** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet [ParticipationFunction](#)  
urn:oid:2.16.840.1.113883.1.11.10267 **STATIC** (CONF:1198-32889).

3. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-14841).
  - a. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-14846).
    - i. Such ids **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:1198-14847).
  - b. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#)  
**urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC** (CONF:1198-14842).

#### 2.1.1.16 authorization

The authorization element represents information about the patient's consent.

The type of consent is conveyed in consent/code. Consents in the header have been finalized (consent/statusCode must equal Completed) and should be on file. This specification does not address how 'Privacy Consent' is represented, but does not preclude the inclusion of 'Privacy Consent'.

The authorization consent is used for referring to consents that are documented elsewhere in the EHR or medical record for a health condition and/or treatment that is described in the CDA document.

24. **MAY** contain zero or more [0..\*] **authorization** (CONF:1198-16792) such that it

- a. **SHALL** contain exactly one [1..1] **consent** (CONF:1198-16793).
  - i. This consent **MAY** contain zero or more [0..\*] **id** (CONF:1198-16794).
  - ii. This consent **MAY** contain zero or one [0..1] **code** (CONF:1198-16795).  
 Note: The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.
  - iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-16797).
    1. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: [HL7ActClass](#) **urn:oid:2.16.840.1.113883.5.6**) (CONF:1198-16798).

#### 2.1.1.17 componentOf

The encompassing encounter represents the setting of the clinical encounter during which the document act(s) or ServiceEvent(s) occurred. In order to represent providers associated with a specific encounter, they are recorded within the encompassingEncounter as participants. In a CCD, the encompassingEncounter may be used when documenting a specific encounter and its participants. All relevant encounters in a CCD may be listed in the encounters section.

25. **MAY** contain zero or one [0..1] **componentOf** (CONF:1198-9955).

- a. The componentOf, if present, **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-9956).

- i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-9959).
- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-9958).

**Table 4: Race**

Value Set: Race urn:oid:2.16.840.1.113883.1.11.14914 Concepts in the race value set include the 5 minimum categories for race specified by OMB along with a more detailed set of race categories used by the Bureau of Census. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	American Indian or Alaska Native
2028-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Asian
2054-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Black or African American
2076-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Native Hawaiian or Other Pacific Islander
2106-3	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	White
1006-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Abenaki
1579-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Absentee Shawnee
1490-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Acoma
2126-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Afghanistani
1740-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Ahtna
...			

**Table 5: HL7 BasicConfidentialityKind**

Value Set: HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926 A value set of HL7 Code indication the level of confidentiality an act. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
N	HL7Confidentiality	urn:oid:2.16.840.1.11388 3.5.25	normal
R	HL7Confidentiality	urn:oid:2.16.840.1.11388 3.5.25	restricted
V	HL7Confidentiality	urn:oid:2.16.840.1.11388 3.5.25	very restricted

**Table 6: Language**

Value Set: Language urn:oid:2.16.840.1.113883.1.11.11526 A value set of codes defined by Internet RFC 5646.			
Use 2 character code if one exists. Use 3 character code if a 2 character code does not exist. Including type = region is allowed			
See <a href="http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry">http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry</a>			
Value Set Source: <a href="http://www.loc.gov/standards/iso639-2/php/code_list.php">http://www.loc.gov/standards/iso639-2/php/code_list.php</a>			
Code	Code System	Code System OID	Print Name
aa	Language	urn:oid:2.16.840.1.11388 3.6.121	Afar
ab	Language	urn:oid:2.16.840.1.11388 3.6.121	Abkhazian
ace	Language	urn:oid:2.16.840.1.11388 3.6.121	Achinese
ach	Language	urn:oid:2.16.840.1.11388 3.6.121	Acoli
ada	Language	urn:oid:2.16.840.1.11388 3.6.121	Adangme
ady	Language	urn:oid:2.16.840.1.11388 3.6.121	Adyghe; Adygei
ae	Language	urn:oid:2.16.840.1.11388 3.6.121	Avestan
af	Language	urn:oid:2.16.840.1.11388 3.6.121	Afrikaans
afa	Language	urn:oid:2.16.840.1.11388 3.6.121	Afro-Asiatic (Other)
afh	Language	urn:oid:2.16.840.1.11388 3.6.121	Afrihili
...			

**Table 7: Telecom Use (US Realm Header)**

Value Set: Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
HP	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	Primary home
HV	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	Vacation home
WP	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	Work place
MC	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	Mobile contact

**Table 8: Administrative Gender (HL7 V3)**

Value Set: Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 Administrative Gender based upon HL7 V3 vocabulary. This value set contains only male, female and undifferentiated concepts. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
F	HL7AdministrativeGender	urn:oid:2.16.840.1.11388 3.5.1	Female
M	HL7AdministrativeGender	urn:oid:2.16.840.1.11388 3.5.1	Male
UN	HL7AdministrativeGender	urn:oid:2.16.840.1.11388 3.5.1	Undifferentiated

**Table 9: Marital Status**

Value Set: Marital Status urn:oid:2.16.840.1.113883.1.11.12212 Marital Status is the domestic partnership status of a person. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
A	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Annulled
D	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Divorced
T	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Domestic partner
I	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Interlocutory
L	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Legally Separated
M	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Married
S	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Never Married
P	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Polygamous
W	HL7MaritalStatus	urn:oid:2.16.840.1.11388 3.5.2	Widowed

**Table 10: Religious Affiliation**

Value Set: Religious Affiliation urn:oid:2.16.840.1.113883.1.11.19185 A value set of codes that reflect spiritual faith affiliation. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
1001	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Adventist
1002	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	African Religions
1003	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Afro-Caribbean Religions
1004	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Agnosticism
1005	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Anglican
1006	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Animism
1007	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Atheism
1008	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Babi & Bahá'í faiths
1009	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Baptist
1010	HL7ReligiousAffiliation	urn:oid:2.16.840.1.11388 3.5.1076	Bon
...			

**Table 11: Race Category Excluding Nulls**

Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	American Indian or Alaska Native
2028-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Asian
2054-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Black or African American
2076-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Native Hawaiian or Other Pacific Islander
2106-3	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	White

**Table 12: Ethnicity**

Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837 Code System: Race & Ethnicity - CDC 2.16.840.1.113883.6.238 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
2135-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Hispanic or Latino
2186-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Not Hispanic or Latino

**Table 13: Personal And Legal Relationship Role Type**

Value Set: Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1 A personal or legal relationship records the role of a person in relation to another person, or a person to himself or herself. This value set is to be used when recording relationships based on personal or family ties or through legal assignment of responsibility. Value Set Source: <a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.12.1">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.12.1</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
SELF	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	self
MTH	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	mother
FTH	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	father
DAU	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	natural daughter
SON	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	natural son
DAUINLAW	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	daughter in-law
SONINLAW	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	son in-law
GUARD	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	guardian
HPOWATT	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	healthcare power of attorney
...			

**Table 14: Country**

Value Set: Country urn:oid:2.16.840.1.113883.3.88.12.80.63 This identifies the codes for the representation of names of countries, territories and areas of geographical interest. Value Set Source: <a href="https://www.iso.org/obp/ui/#iso:pub:PUB500001:en">https://www.iso.org/obp/ui/#iso:pub:PUB500001:en</a>			
Code	Code System	Code System OID	Print Name
AW	ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2	urn:oid:1.0.3166.1.2.2	Aruba
IL	ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2	urn:oid:1.0.3166.1.2.2	Israel
...			

**Table 15: LanguageAbilityMode**

Value Set: LanguageAbilityMode urn:oid:2.16.840.1.113883.1.11.12249 This identifies the language ability of the individual. A value representing the method of expression of the language. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
ESGN	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Expressed signed
ESP	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Expressed spoken
EWR	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Expressed written
RSGN	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Received signed
RSP	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Received spoken
RWR	HL7LanguageAbilityMode	urn:oid:2.16.840.1.11388 3.5.60	Received written

**Table 16: LanguageAbilityProficiency**

Value Set: LanguageAbilityProficiency urn:oid:2.16.840.1.113883.1.11.12199 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
E	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.11388 3.5.61	Excellent
F	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.11388 3.5.61	Fair
G	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.11388 3.5.61	Good
P	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.11388 3.5.61	Poor

**Table 17: Detailed Ethnicity**

Value Set: Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877 List of detailed ethnicity codes reported on a limited basis Value Set Source: <a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.877">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.877</a>			
Code	Code System	Code System OID	Print Name
2138-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Andalusian
2166-7	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Argentinean
2139-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Asturian
2142-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Belearic Islander
2167-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Bolivian
2163-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Canal Zone
2145-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Canarian
2140-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Castillian
2141-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Catalonian
2155-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.11388 3.6.238	Central American
...			

**Table 18: Healthcare Provider Taxonomy (HIPAA)**

Value Set: Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066

The Health Care Provider Taxonomy value set is a collection of unique alphanumeric codes, ten characters in length. The code set is structured into three distinct Levels including Provider Type, Classification, and Area of Specialization. The Health Care Provider Taxonomy code set allows a single provider (individual, group, or institution) to identify their specialty category. Providers may have one or more than one value associated to them. When determining what value or values to associate with a provider, the user needs to review the requirements of the trading partner with which the value(s) are being used.

Value Set Source:

<https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.1066>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
171100000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Acupuncturist
363LA2100X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Nurse Practitioner - Acute Care
364SA2100X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Clinical Nurse Specialist - Acute Care
101YA0400X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Counselor - Addiction (Substance Use Disorder)
103TA0400X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Psychologist - Addiction (Substance Use Disorder)
163WA0400X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Registered Nurse - Addiction (Substance Use Disorder)
207LA0401X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Anesthesiology - Addiction Medicine
207QA0401X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Family Medicine - Addiction Medicine
207RA0401X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Internal Medicine - Addiction Medicine
2084A0401X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.11388 3.6.101	Psychiatry & Neurology - Addiction Medicine
...			

**Table 19: INDRoleclassCodes**

Value Set: INDRoleclassCodes urn:oid:2.16.840.1.113883.11.20.9.33 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
PRS	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	personal relationship
NOK	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	next of kin
CAREGIVER	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	caregiver
AGNT	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	agent
GUAR	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	guarantor
ECON	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	emergency contact

**Table 20: x\_ServiceEventPerformer**

Value Set: x_ServiceEventPerformer urn:oid:2.16.840.1.113883.1.11.19601 Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastucture/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastucture/vocabulary/vocabulary.html</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
PRF	HL7ParticipationType	urn:oid:2.16.840.1.11388 3.5.90	performer
SPRF	HL7ParticipationType	urn:oid:2.16.840.1.11388 3.5.90	secondary performer
PPRF	HL7ParticipationType	urn:oid:2.16.840.1.11388 3.5.90	primary performer

**Table 21: ParticipationFunction**

Value Set: ParticipationFunction urn:oid:2.16.840.1.113883.1.11.10267 This HL7-defined value set can be used to specify the exact function an actor had in a service in all necessary detail. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
SNRS	HL7ParticipationFunction	urn:oid:2.16.840.1.11388 3.5.88	Scrub nurse
SASST	HL7ParticipationFunction	urn:oid:2.16.840.1.11388 3.5.88	Second assistant surgeon
...			

**Figure 1: US Realm Header (V3) Example**

```
<ClinicalDocument>
  <realmCode code="US" />
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3" />
  <!-- CCD template -->
  <templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2015-08-01" />
  <!-- Globally unique identifier for the document -->
  <id extension="TT988" root="2.16.840.1.113883.19.5.99999.1" />
  <code code="34133-9" displayName="Summarization of Episode Note"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <!-- Title of the document -->
  <title>Patient Chart Summary</title>
  <effectiveTime value="201209151030-0800" />
  <confidentialityCode code="N" displayName="normal" codeSystem="2.16.840.1.113883.5.25"
codeSystemName="Confidentiality" />
  <languageCode code="en-US" />
  <setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />
  <!-- Version of the document -->
  <versionNumber value="1" />
  . .
</ClinicalDocument>
```

**Figure 2: recordTarget Example**

```

<recordTarget>
  <patientRole>
    <id extension="444-22-2222" root="2.16.840.1.113883.4.1" />
    <!-- Example Social Security Number using the actual SSN OID. -->
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
      <state>OR</state>
      <postalCode>97867</postalCode>
      <country>US</country>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
    </addr>
    <telecom value="tel:+1(555)555-2003" use="HP" />
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <patient>
      <!-- The first name element represents what the patient is known as -->
      <name use="L">
        <given>Eve</given>
        <!-- The "SP" is "Spouse" from
            HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
        <family qualifier="SP">Betterhalf</family>
      </name>
      <!-- The second name element represents another name
          associated with the patient -->
      <name>
        <given>Eve</given>
        <!-- The "BR" is "Birth" from
            HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
        <family qualifier="BR">Everywoman</family>
      </name>
      <administrativeGenderCode code="F" displayName="Female"
codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />
      <!-- Date of birth need only be precise to the day -->
      <birthTime value="19750501" />
      <maritalStatusCode code="M" displayName="Married"
codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode" />
      <religiousAffiliationCode code="1013" displayName="Christian (non-Catholic,
non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious
Affiliation" />
      <!-- CDC Race and Ethnicity code set contains the five minimum
          race and ethnicity categories defined by OMB Standards -->
      <raceCode code="2106-3" displayName="White"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <!-- The raceCode extension is only used if raceCode is valued -->
      <sdtc:raceCode code="2076-8" displayName="Hawaiian or Other Pacific Islander"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <guardian>
        <code code="POWATT" displayName="Power of Attorney"
codeSystem="2.16.840.1.113883.1.11.19830" codeSystemName="ResponsibleParty" />
        <addr use="HP">
          <streetAddressLine>2222 Home Street</streetAddressLine>
          <city>Beaverton</city>

```

```

<state>OR</state>
<postalCode>97867</postalCode>
<country>US</country>
</addr>
<telecom value="tel:+1 (555) 555-2008" use="MC" />
<guardianPerson>
    <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
    </name>
</guardianPerson>
</guardian>
<birthplace>
    <place>
        <addr>
            <streetAddressLine>4444 Home Street</streetAddressLine>
            <city>Beaverton</city>
            <state>OR</state>
            <postalCode>97867</postalCode>
            <country>US</country>
        </addr>
    </place>
</birthplace>
<languageCommunication>
    <languageCode code="eng" />
    <!-- "eng" is ISO 639-2 alpha-3 code for "English" -->
    <modeCode code="ESP" displayName="Expressed spoken"
codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode" />
    <proficiencyLevelCode code="G" displayName="Good"
codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency" />
    <!-- Patient's preferred language -->
    <preferenceInd value="true" />
</languageCommunication>
</patient>
<providerOrganization>
    <id extension="219BX" root="1.1.1.1.1.1.2" />
    <name>The DoctorsTogether Physician Group</name>
    <telecom use="WP" value="tel: +(555)-555-5000" />
    <addr>
        <streetAddressLine>1007 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
    </addr>
</providerOrganization>
</patientRole>
</recordTarget>

```

**Figure 3: author Example**

```
<author>
  <time value="201209151030-0800" />
  <assignedAuthor>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="163W00000X" displayName="Registered nurse"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555) 555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedAuthor>
</author>
```

**Figure 4: dateEnterer Example**

```
<dataEnterer>
  <assignedEntity>
    <id extension="333777777" root="2.16.840.1.113883.4.6" />
    <addr>
      <streetAddressLine>1007 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555) 555-1050" />
    <assignedPerson>
      <name>
        <given>Ellen</given>
        <family>Enter</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</dataEnterer>
```

**Figure 5: Assigned Health Care Provider informant Example**

```
<informant>
  <assignedEntity>
    <id extension="888888888" root="1.1.1.1.1.1.3" />
    <addr>
      <streetAddressLine>1007 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1003" />
    <assignedPerson>
      <name>
        <given>Harold</given>
        <family>Hippocrates</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <name>The DoctorsApart Physician Group</name>
    </representedOrganization>
  </assignedEntity>
</informant>
```

**Figure 6: Personal Relation informant Example**

```
<informant>
  <relatedEntity classCode="PRS">
    <!-- classCode "PRS" represents a person with personal relationship with the
patient -->
    <code code="SPS" displayName="SPOUSE" codeSystem="2.16.840.1.113883.1.11.19563"
codeSystemName="Personal Relationship Role Type Value Set" />
    <relatedPerson>
      <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
      </name>
    </relatedPerson>
  </relatedEntity>
</informant>
```

**Figure 7: custodian Example**

```
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id extension="321CX" root="1.1.1.1.1.1.3" />
      <name>Good Health HIE</name>
      <telecom use="WP" value="tel:+1(555)555-1009" />
      <addr use="WP">
        <streetAddressLine>1009 Healthcare Drive </streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
```

**Figure 8: informationRecipient Example**

```
<informationRecipient>
  <intendedRecipient>
    <informationRecipient>
      <name>
        <given>Sara</given>
        <family>Specialize</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </informationRecipient>
    <receivedOrganization>
      <name>The DoctorsApart Physician Group</name>
    </receivedOrganization>
  </intendedRecipient>
</informationRecipient>
```

**Figure 9: Digital signature Example**

```
<sdtc:signatureText mediaType="text/xml"
representation="B64">omSJUEdmde9j44zmMiromSJUEdmde9j44zmMir6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu836edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83mNYD83jmMdomSJUEdmde9j44zmMir
... MNYD83jmMdomSJUEdmde9j44zmMir6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu834zmMir6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83==</sdtc:signatureText>
```

**Figure 10: legalAuthenticator Example**

```
<legalAuthenticator>
  <time value="20120915223615-0800" />
  <signatureCode code="S" />
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555) 555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedEntity>
</legalAuthenticator>
```

**Figure 11: authenticator Example**

```
<authenticator>
  <time value="201209151030-0800" />
  <signatureCode code="S" />
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555) 555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedEntity>
</authenticator>
```

**Figure 12: Supporting Person participant Example**

```

<participant typeCode="IND">
    <!-- typeCode "IND" represents an individual -->
    <associatedEntity classCode="NOK">
        <!-- classCode "NOK" represents the patient's next of kin-->
        <addr use="HP">
            <streetAddressLine>2222 Home Street</streetAddressLine>
            <city>Beaverton</city>
            <state>OR</state>
            <postalCode>97867</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:+1(555) 555-2008" use="MC" />
        <associatedPerson>
            <name>
                <given>Boris</given>
                <given qualifier="CL">Bo</given>
                <family>Betterhalf</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
<!-- Entities playing multiple roles are recorded in multiple participants -->
<participant typeCode="IND">
    <associatedEntity classCode="ECON">
        <!-- classCode "ECON" represents an emergency contact -->
        <addr use="HP">
            <streetAddressLine>2222 Home Street</streetAddressLine>
            <city>Beaverton</city>
            <state>OR</state>
            <postalCode>97867</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:+1(555) 555-2008" use="MC" />
        <associatedPerson>
            <name>
                <given>Boris</given>
                <given qualifier="CL">Bo</given>
                <family>Betterhalf</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>

```

**Figure 13: inFulfillmentOf Example**

```

<inFulfillmentOf typeCode="FLFS">
    <order classCode="ACT" moodCode="RQO">
        <id root="2.16.840.1.113883.6.96" extension="1298989898" />
        <code code="388975008" displayName="Weight Reduction Consultation"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="CPT4" />
    </order>
</inFulfillmentOf>

```

**Figure 14: performer Example**

```
<performer typeCode="PRF">
  <functionCode code="PCP"
    displayName="Primary Care Provider"
    codeSystem="2.16.840.1.113883.5.88"
    codeSystemName="ParticipationFunction">
    <originalText>Primary Care Provider</originalText>
  </functionCode>
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id extension="219BX" root="1.1.1.1.1.1.1.2" />
      <name>The DoctorsTogether Physician Group</name>
      <telecom use="WP" value="tel: +(555)-555-5000" />
      <addr>
        <streetAddressLine>1004 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
    </representedOrganization>
  </assignedEntity>
</performer>
```

**Figure 15: documentationOf Example**

```
<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- The effectiveTime reflects the provision of care summarized in the document.
    In this scenario, the provision of care summarized is the lifetime for the patient -->
    <effectiveTime>
      <low value="19750501" />
      <!-- The low value represents when the summarized provision of care began.
      In this scenario, the patient's date of birth -->
      <high value="20120915" />
      <!-- The high value represents when the summarized provision of care being
ended.
      In this scenario, when chart summary was created -->
    </effectiveTime>
    <performer typeCode="PRF">
      <functionCode code="PCP"
                    displayName="Primary Care Provider"
                    codeSystem="2.16.840.1.113883.5.88"
                    codeSystemName="ParticipationFunction">
        <originalText>Primary Care Provider</originalText>
      </functionCode>
      <assignedEntity>
        <id extension="5555555555" root="2.16.840.1.113883.4.6" />
        <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
        <addr>
          <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
        <telecom use="WP" value="tel:+1(555)555-1004" />
        <assignedPerson>
          <name>
            <given>Patricia</given>
            <given qualifier="CL">Patty</given>
            <family>Primary</family>
            <suffix qualifier="AC">M.D.</suffix>
          </name>
        </assignedPerson>
        <representedOrganization>
          <id extension="219BX" root="1.1.1.1.1.1.2" />
          <name>The DoctorsTogether Physician Group</name>
          <telecom use="WP" value="tel: +(555)-555-5000" />
          <addr>
            <streetAddressLine>1004 Health Drive</streetAddressLine>
            <city>Portland</city>
            <state>OR</state>
            <postalCode>99123</postalCode>
            <country>US</country>
          </addr>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
```

```
</documentationOf>
```

**Figure 16: authorization Example**

```
<authorization typeCode="AUTH">
  <consent classCode="CONS" moodCode="EVN">
    <id root="629deb70-5306-11df-9879-0800200c9a66" />
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="64293-4"
displayName="Procedure consent" />
    <statusCode code="completed" />
  </consent>
</authorization>
```

## 2.1.2 Care Plan (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.15:2015-08-01 (open)]

**Table 22: Care Plan (V2) Contexts**

Contained By:	Contains:
	<a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (optional) <a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (required) <a href="#">Health Status Evaluations and Outcomes Section</a> (optional) <a href="#">Goals Section</a> (required) <a href="#">Health Concerns Section (V2)</a> (required) <a href="#">Interventions Section (V3)</a> (optional)

### CARE PLAN FRAMEWORK

A Care Plan (including Home Health Plan of Care (HHPoC)) is a consensus-driven dynamic plan that represents a patient's and Care Team Members' prioritized concerns, goals, and planned interventions. It serves as a blueprint shared by all Care Team Members (including the patient, their caregivers and providers), to guide the patient's care. A Care Plan integrates multiple interventions proposed by multiple providers and disciplines for multiple conditions.

A Care Plan represents one or more Plan(s) of Care and serves to reconcile and resolve conflicts between the various Plans of Care developed for a specific patient by different providers. While both a plan of care and a care plan include the patient's life goals and require Care Team Members (including patients) to prioritize goals and interventions, the reconciliation process becomes more complex as the number of plans of care increases. The Care Plan also serves to enable longitudinal coordination of care.

The CDA Care Plan represents an instance of this dynamic Care Plan at a point in time. The CDA document itself is NOT dynamic.

Key differentiators between a Care Plan CDA and CCD (another “snapshot in time” document):

There are 2 required sections:

- o Health Concerns
- o Interventions

There are 2 optional sections:

- o Goals
- o Outcomes
- Provides the ability to identify patient and provider priorities with each act
- Provides a header participant to indicate occurrences of Care Plan review

A care plan document can include entry references from the information in these sections to the information (entries) in other sections.

Please see Volume 1 of this guide to view a Care Plan Relationship diagram and story board.

**Table 23: Care Plan (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.15:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-28741</a>	
@root	1..1	SHALL		<a href="#">1198-28742</a>	2.16.840.1.113883.10.20.22.1.15
@extension	1..1	SHALL		<a href="#">1198-32877</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-28745</a>	
@code	1..1	SHALL		<a href="#">1198-32959</a>	urn:oid:2.16.840.1.113762.1.4.1099.10 (Care Plan Document Type)
setId	0..1	SHOULD		<a href="#">1198-32321</a>	
versionNumber	0..1	SHOULD		<a href="#">1198-32322</a>	
informationRecipient	0..*	SHOULD		<a href="#">1198-31993</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-31994</a>	
id	1..*	SHALL		<a href="#">1198-31996</a>	
addr	0..*	SHOULD		<a href="#">1198-31997</a>	
telecom	0..*	SHOULD		<a href="#">1198-31998</a>	
informationRecipient	0..1	SHOULD		<a href="#">1198-31999</a>	
name	1..1	SHALL		<a href="#">1198-32320</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2.022.5.1.1</a>
receivedOrganization	0..1	SHOULD		<a href="#">1198-32000</a>	
id	0..*	SHOULD		<a href="#">1198-32001</a>	
name	1..*	SHALL		<a href="#">1198-32002</a>	
standardIndustryClassCode	0..1	SHOULD		<a href="#">1198-32003</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
authenticator	0..1	SHOULD		<a href="#">1198-31910</a>	
time	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">31911</a>	
signatureCode	1..1	SHALL		<a href="#">1198-31912</a>	
sdtc:signatureText	0..1	MAY		<a href="#">1198-31913</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-31914</a>	
id	1..*	SHALL		<a href="#">1198-31915</a>	
code	1..1	SHALL		<a href="#">1198-31916</a>	
@code	1..1	SHALL		<a href="#">1198-31917</a>	ONESELF
@codeSystem	1..1	SHALL		<a href="#">1198-31918</a>	urn:oid:2.16.840.1.113883.5.11 1 (HL7RoleCode) = 2.16.840.1.113883.5.111
participant	0..*	SHOULD		<a href="#">1198-31677</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31678</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VRF
functionCode	1..1	SHALL		<a href="#">1198-31679</a>	
@code	1..1	SHALL		<a href="#">1198-31680</a>	425268008
@codeSystem	1..1	SHALL		<a href="#">1198-31681</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
time	1..1	SHALL		<a href="#">1198-31682</a>	
associatedEntity	1..1	SHALL		<a href="#">1198-31683</a>	
@classCode	1..1	SHALL		<a href="#">1198-31686</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = ASSIGNED
id	1..*	SHALL		<a href="#">1198-31684</a>	
code	0..1	SHOULD		<a href="#">1198-31685</a>	
@code	1..1	SHALL		<a href="#">1198-32367</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
participant	0..*	SHOULD		<a href="#">1198-31895</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31896</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND
associatedEntity	1..1	SHALL		<a href="#">1198-31897</a>	
@classCode	1..1	SHALL		<a href="#">1198-31898</a>	urn:oid:2.16.840.1.113883.11.2 0.9.33 (INDRoleclassCodes)

associatedPerson	1..1	SHALL		<a href="#">1198-31899</a>	
name	1..*	SHALL		<a href="#">1198-31900</a>	
documentationOf	1..1	SHALL		<a href="#">1198-31901</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-31902</a>	
@classCode	1..1	SHALL		<a href="#">1198-31903</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR
effectiveTime	1..1	SHALL		<a href="#">1198-31904</a>	
low	1..1	SHALL		<a href="#">1198-32330</a>	
high	0..1	MAY		<a href="#">1198-32331</a>	
performer	1..*	SHALL		<a href="#">1198-31905</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-31907</a>	
id	1..*	SHALL		<a href="#">1198-31908</a>	
code	0..1	MAY		<a href="#">1198-31909</a>	
assignedPerson	1..1	SHALL		<a href="#">1198-32328</a>	
name	1..1	SHALL		<a href="#">1198-32329</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.5.1.1</a>
relatedDocument	0..*	MAY		<a href="#">1198-29893</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31889</a>	urn:oid:2.16.840.1.113883.1.11.11610 (x_ActRelationshipDocument)
parentDocument	1..1	SHALL		<a href="#">1198-29894</a>	
id	1..*	SHALL		<a href="#">1198-32949</a>	
setId	1..1	SHALL		<a href="#">1198-29895</a>	
versionNumber	1..1	SHALL		<a href="#">1198-29896</a>	
componentOf	0..1	SHOULD		<a href="#">1198-32004</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-32005</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">32007</a>	
component	1..1	SHALL		<a href="#">1198-28753</a>	
structuredBody	1..1	SHALL		<a href="#">1198-28754</a>	
component	1..1	SHALL		<a href="#">1198-28755</a>	
section	1..1	SHALL		<a href="#">1198-28756</a>	<a href="#">Health Concerns Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.58:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-28761</a>	
section	1..1	SHALL		<a href="#">1198-28762</a>	<a href="#">Goals Section (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.60</a>
component	0..1	SHOULD		<a href="#">1198-28763</a>	
section	1..1	SHALL		<a href="#">1198-28764</a>	<a href="#">Interventions Section (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.21.2.3:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198-29596</a>	
section	1..1	SHALL		<a href="#">1198-29597</a>	<a href="#">Health Status Evaluations and</a> <a href="#">Outcomes Section (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.61</a>

1. Conforms to [US Realm Header \(V3\)](#) template (identifier:  
[urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28741) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.1.15"** (CONF:1198-28742).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32877).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32934).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-28745).
  - a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Care Plan Document Type](#) [urn:oid:2.16.840.1.113762.1.4.1099.10 DYNAMIC](#) (CONF:1198-32959).
4. **SHOULD** contain zero or one [0..1] **setId** (CONF:1198-32321).
5. **SHOULD** contain zero or one [0..1] **versionNumber** (CONF:1198-32322).

### 2.1.2.1 informationRecipient

6. **SHOULD** contain zero or more [0..\*] **informationRecipient** (CONF:1198-31993) such that it
  - a. **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-31994).
    - i. This intendedRecipient **SHALL** contain at least one [1..\*] **id** (CONF:1198-31996).
    - ii. This intendedRecipient **SHOULD** contain zero or more [0..\*] **addr** (CONF:1198-31997).
    - iii. This intendedRecipient **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-31998).
    - iv. This intendedRecipient **SHOULD** contain zero or one [0..1] **informationRecipient** (CONF:1198-31999).
      1. The informationRecipient, if present, **SHALL** contain exactly one [1..1] **US Realm Person Name (PN.US.FIELDDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-32320).
    - v. This intendedRecipient **SHOULD** contain zero or one [0..1] **receivedOrganization** (CONF:1198-32000).
      1. The receivedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1198-32001).
      2. The receivedOrganization, if present, **SHALL** contain at least one [1..\*] **name** (CONF:1198-32002).
      3. The receivedOrganization, if present, **SHOULD** contain zero or one [0..1] **standardIndustryClassCode**, which **SHALL** be selected from ValueSet **Healthcare Provider Taxonomy (HIPAA)** urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32003).

### 2.1.2.2 authenticator

7. **SHOULD** contain zero or one [0..1] **authenticator** (CONF:1198-31910) such that it
  - a. **SHALL** contain exactly one [1..1] **time** (CONF:1198-31911).
  - b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-31912).
  - c. **MAY** contain zero or one [0..1] **sdtc:signatureText** (CONF:1198-31913).
  - d. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-31914).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31915).
    - ii. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:1198-31916).
      1. This code **SHALL** contain exactly one [1..1] @code="ONESELF" Self (CONF:1198-31917).
      2. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.111" (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111) (CONF:1198-31918).

### 2.1.2.3 participant

8. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31677) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="VRF" Verifier (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-31678).
  - b. **SHALL** contain exactly one [1..1] **functionCode** (CONF:1198-31679).
    - i. This functionCode **SHALL** contain exactly one [1..1] @code="425268008" Review of Care Plan (CONF:1198-31680).
    - ii. This functionCode **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-31681).
  - c. **SHALL** contain exactly one [1..1] **time** (CONF:1198-31682).
  - d. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31683).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode="ASSIGNED" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1198-31686).
    - ii. This associatedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31684).
    - iii. This associatedEntity **SHOULD** contain zero or one [0..1] **code** (CONF:1198-31685).
      1. The code, if present, **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#) urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-32367).

### 2.1.2.4 participant

9. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31895) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="IND" Indirect (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-31896).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31897).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode, which **SHALL** be selected from ValueSet [INDRoleclassCodes](#) urn:oid:2.16.840.1.113883.11.20.9.33 **STATIC** (CONF:1198-31898).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31899).
      1. This associatedPerson **SHALL** contain at least one [1..\*] **name** (CONF:1198-31900).

### 2.1.2.5 documentationOf

The serviceEvent describes the provision of healthcare over a period of time. The duration over which care was provided is indicated in serviceEvent/effectiveTime. Additional data from outside this duration may also be included if it is relevant to care provided during that time range (e.g., reviewed during the stated time range).

10. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1198-31901) such that it

- a. **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-31902).
  - i. This serviceEvent **SHALL** contain exactly one [1..1] **@classCode="PCPR"** Care Provision (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-31903).
  - ii. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-31904).
    - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-32330).
    - 2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1198-32331).
  - iii. This serviceEvent **SHALL** contain at least one [1..\*] **performer** (CONF:1198-31905) such that it
    - 1. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-31907).
      - a. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31908).
      - b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:1198-31909).
      - c. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-32328).
        - i. This assignedPerson **SHALL** contain exactly one [1..1] **US Realm Person Name (PN.US.FIELDED)** (**identifier:** urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-32329).

#### 2.1.2.6 relatedDocument

- 11. **MAY** contain zero or more [0..\*] **relatedDocument** (CONF:1198-29893) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**, which **SHALL** be selected from ValueSet **x\_ActRelationshipDocument** urn:oid:2.16.840.1.113883.1.11.11610 **STATIC** (CONF:1198-31889).
  - b. **SHALL** contain exactly one [1..1] **parentDocument** (CONF:1198-29894).
    - i. This parentDocument **SHALL** contain at least one [1..\*] **id** (CONF:1198-32949).
    - ii. This parentDocument **SHALL** contain exactly one [1..1] **setId** (CONF:1198-29895).
    - iii. This parentDocument **SHALL** contain exactly one [1..1] **versionNumber** (CONF:1198-29896).

#### 2.1.2.7 componentOf

- 12. **SHOULD** contain zero or one [0..1] **componentOf** (CONF:1198-32004) such that it
  - a. **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-32005).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-32007).

## 2.1.2.8 component

13. **SHALL** contain exactly one [1..1] **component** (CONF:1198-28753).
- This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-28754).
    - This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28755) such that it
      - SHALL** contain exactly one [1..1] [Health Concerns Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.58:2015-08-01) (CONF:1198-28756).
    - This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28761) such that it
      - SHALL** contain exactly one [1..1] [Goals Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.60) (CONF:1198-28762).
    - This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28763) such that it
      - SHALL** contain exactly one [1..1] [Interventions Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.21.2.3:2015-08-01) (CONF:1198-28764).
    - This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-29596) such that it
      - SHALL** contain exactly one [1..1] [Health Status Evaluations and Outcomes Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.61) (CONF:1198-29597).
    - This structuredBody **SHALL NOT** contain a Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-31044).

**Table 24: x\_ActRelationshipDocument**

Value Set: x_ActRelationshipDocument urn:oid:2.16.840.1.113883.1.11.11610 Used to enumerate the relationships between two clinical documents for document management.			
Code	Code System	Code System OID	Print Name
RPLC	HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002	Replaces
APND	HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002	Is appendage
XFRM	HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002	Transformation

**Table 25: Care Plan Document Type**

Value Set: Care Plan Document Type urn:oid:2.16.840.1.113762.1.4.1099.10			
Terms used to identify documents that represent a Care Plan			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.10">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.10</a>			
Code	Code System	Code System OID	Print Name
52521-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Overall Plan of Care
...			

**Figure 17: Care Plan Patient authenticator Example**

```
<!-- This authenticator represents patient agreement or
sign-off of the Care Plan-->
<authenticator>
    <time value="20130802" />
    <signatureCode code="S" />
    <sdtc:signatureText mediaType="text/xml"
representation="B64">omSJUEdmde9j44zmMiromSJUEdmde9j44zmMirdMDSSsWdIJdk
sIJR3373jeu83
6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83MNYD83jmMdomSJUEdmde9j44zmMir
6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83
MNYD83jmMdomSJUEdmde9j44zmMir6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83
4zmMir6edjzMMIjdMDSSsWdIJdk
sIJR3373jeu83==</sdtc:signatureText>
    <assignedEntity>
        <id extension="996-756-495" root="2.16.840.1.113883.19.5" />
        <code code="ONESELF" displayName="Self" codeSystem="2.16.840.1.113883.5.111"
codeSystemName="HL7 Role code" />
    </assignedEntity>
</authenticator>
```

**Figure 18: Care Plan Review Example**

```
<!-- This participant represents the Care Plan review.
If the date in the time element is in the past,
then this review has already taken place.
If the date in the time element is in the future,
then this is the date of the next scheduled review. -->
<!-- This example shows a Care Plan Review that has already taken place -->
<participant typeCode="IND">
    <functionCode code="425268008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Review of Care Plan" />
    <time value="20130801" />
    <associatedEntity classCode="ASSIGNED">
        <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
    </associatedEntity>
</participant>
```

**Figure 19: Care Plan Caregiver participant Example**

```
<participant typeCode="IND">
    <functionCode code="407543004" displayName="Primary Carer"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
    <!-- Caregiver -->
    <associatedEntity classCode="CAREGIVER">
        <code code="MTH" codeSystem="2.16.840.1.113883.5.111" />
        <addr>
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Ann Arbor</city>
            <state>MI</state>
            <postalCode>97857</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:(999) 555-1212" use="WP" />
        <associatedPerson>
            <name>
                <prefix>Mrs.</prefix>
                <given>Martha</given>
                <family>Jones</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
```

**Figure 20: Care Plan performer Example**

```
<performer typeCode="PRF">
    <time value="20130715223615-0800" />
    <assignedEntity>
        <id extension="5555555555" root="2.16.840.1.113883.4.6" />
        <code code="59058001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT" displayName="General Physician" />
        <addr>
            <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
            <city>Portland</city>
            <state>OR</state>
            <postalCode>99123</postalCode>
            <country>US</country>
        </addr>
        <telecom use="WP" value="tel:+1(555)-1004" />
        <assignedPerson>
            <name>
                <given>Patricia</given>
                <given qualifier="CL">Patty</given>
                <family>Primary</family>
                <suffix qualifier="AC">M.D.</suffix>
            </name>
        </assignedPerson>
    </assignedEntity>
</performer>
```

**Figure 21: Care Plan relatedDocument Example**

```
<!-- This document is the second in a set - relatedDocument  
describes the parent document-->  
<relatedDocument typeCode="RPLC">  
  <parentDocument>  
    <id root="223769be-f6ee-4b04-a0ce-b56ae998c880" />  
    <code code="CarePlan-x" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"  
displayName="Care Plan" />  
    <setId root="004bb033-b948-4f4c-b5bf-a8dbd7d8dd40" />  
    <versionNumber value="1" />  
  </parentDocument>  
</relatedDocument>
```

### 2.1.3 Consultation Note (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.4:2015-08-01 (open)]

**Table 26: Consultation Note (V3) Contexts**

Contained By:	Contains:
	<a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (optional) <a href="#">Chief Complaint Section</a> (optional) <a href="#">Reason for Visit Section</a> (optional) <a href="#">Chief Complaint and Reason for Visit Section</a> (optional) <a href="#">History of Present Illness Section</a> (required) <a href="#">General Status Section</a> (optional) <a href="#">Medications Section (entries required) (V2)</a> (optional) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Nutrition Section</a> (optional) <a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Assessment and Plan Section (V2)</a> (optional) <a href="#">US Realm Date and Time (DT.US.FIELDDED)</a> (required) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional) <a href="#">Results Section (entries required) (V3)</a> (optional) <a href="#">History of Past Illness Section (V3)</a> (optional) <a href="#">Vital Signs Section (entries required) (V3)</a> (optional) <a href="#">Problem Section (entries required) (V3)</a> (required) <a href="#">Physical Exam Section (V3)</a> (optional) <a href="#">Social History Section (V3)</a> (optional) <a href="#">Advance Directives Section (entries optional) (V3)</a> (optional) <a href="#">Family History Section (V3)</a> (optional)

Contained By:	Contains:
	<a href="#">Allergies and Intolerances Section (entries required)</a> <a href="#">(V3) (required)</a>

The Consultation Note is generated by a request from a clinician for an opinion or advice from another clinician. Consultations may involve face-to-face time with the patient or may fall under the auspices of telemedicine visits. Consultations may occur while the patient is inpatient or ambulatory. The Consultation Note should also be used to summarize an Emergency Room or Urgent Care encounter.

A Consultation Note includes the reason for the referral, history of present illness, physical examination, and decision-making components (Assessment and Plan).

**Table 27: Consultation Note (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.4:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8375</a>	
@root	1..1	SHALL		<a href="#">1198-10040</a>	2.16.840.1.113883.10.20.22.1.4
@extension	1..1	SHALL		<a href="#">1198-32502</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17176</a>	urn:oid:2.16.840.1.113883.11.2 0.9.31 (ConsultDocumentType)
participant	0..*	SHOULD		<a href="#">1198-31656</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31657</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CALLBCK
associatedEntity	1..1	SHALL		<a href="#">1198-31658</a>	
@classCode	1..1	SHALL		<a href="#">1198-31659</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = ASSIGNED
id	1..*	SHALL		<a href="#">1198-31660</a>	
addr	0..*	SHOULD		<a href="#">1198-31661</a>	
telecom	1..*	SHALL		<a href="#">1198-31662</a>	
associatedPerson	1..1	SHALL		<a href="#">1198-31663</a>	
name	1..*	SHALL		<a href="#">1198-31664</a>	
scopingOrganization	0..1	MAY		<a href="#">1198-31665</a>	
inFulfillmentOf	1..*	SHALL		<a href="#">1198-8382</a>	
order	1..1	SHALL		<a href="#">1198-29923</a>	
id	1..*	SHALL		<a href="#">1198-29924</a>	
componentOf	1..1	SHALL		<a href="#">1198-8386</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-8387</a>	
id	1..*	SHALL		<a href="#">1198-8388</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-8389</a>	<a href="#">US Realm Date and Time</a> (DT.US.FIELDED) (identifier:

				<a href="#">urn:oid:2.16.840.1.113883.10.2 0.22.5.3</a>
responsibleParty	0..1	MAY	<a href="#">1198- 8391</a>	
assignedEntity	1..1	SHALL	<a href="#">1198- 32904</a>	
encounterParticipant	0..*	MAY	<a href="#">1198- 8392</a>	
assignedEntity	1..1	SHALL	<a href="#">1198- 32902</a>	
component	1..1	SHALL	<a href="#">1198- 8397</a>	
structuredBody	1..1	SHALL	<a href="#">1198- 28895</a>	
component	0..1	MAY	<a href="#">1198- 28896</a>	
section	1..1	SHALL	<a href="#">1198- 28897</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.8</a>
component	0..1	MAY	<a href="#">1198- 28898</a>	
section	1..1	SHALL	<a href="#">1198- 28899</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.9:2014-06-09</a>
component	0..1	MAY	<a href="#">1198- 28900</a>	
section	1..1	SHALL	<a href="#">1198- 28901</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.10:2014-06-09</a>
component	0..1	MAY	<a href="#">1198- 28904</a>	
section	1..1	SHALL	<a href="#">1198- 28905</a>	<a href="#">Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.12</a>
component	1..1	SHALL	<a href="#">1198- 28906</a>	
section	1..1	SHALL	<a href="#">1198- 28907</a>	<a href="#">History of Present Illness Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3. 1.3.4</a>
component	0..1	SHOULD	<a href="#">1198- 28908</a>	
section	1..1	SHALL	<a href="#">1198- 28909</a>	<a href="#">Physical Exam Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.2.10:2015-08-01</a>

component	1..1	SHALL		<a href="#">1198-28910</a>	
section	1..1	SHALL		<a href="#">1198-28911</a>	Allergies and Intolerances Section (entries required) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-28912</a>	
section	1..1	SHALL		<a href="#">1198-28913</a>	Chief Complaint Section (identifier: <a href="#">urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1</a> )
component	0..1	MAY		<a href="#">1198-28915</a>	
section	1..1	SHALL		<a href="#">1198-28916</a>	Chief Complaint and Reason for Visit Section (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.2.13</a> )
component	0..1	MAY		<a href="#">1198-28917</a>	
section	1..1	SHALL		<a href="#">1198-28918</a>	Family History Section (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-28919</a>	
section	1..1	SHALL		<a href="#">1198-28920</a>	General Status Section (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.2.5</a> )
component	0..1	MAY		<a href="#">1198-28921</a>	
section	1..1	SHALL		<a href="#">1198-28922</a>	History of Past Illness Section (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-28923</a>	
section	1..1	SHALL		<a href="#">1198-28924</a>	Immunizations Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01</a> )
component	0..1	SHOULD		<a href="#">1198-28925</a>	
section	1..1	SHALL		<a href="#">1198-28926</a>	Medications Section (entries required) (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09</a> )
component	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">28928</a>	
section	1..1	SHALL		<a href="#">1198-28929</a>	<a href="#">Problem Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-28930</a>	
section	1..1	SHALL		<a href="#">1198-28931</a>	<a href="#">Procedures Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)</a>
component	0..1	SHOULD		<a href="#">1198-28932</a>	
section	1..1	SHALL		<a href="#">1198-28933</a>	<a href="#">Results Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-28934</a>	
section	1..1	SHALL		<a href="#">1198-28935</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-28936</a>	
section	1..1	SHALL		<a href="#">1198-28937</a>	<a href="#">Vital Signs Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-28942</a>	
section	1..1	SHALL		<a href="#">1198-28943</a>	<a href="#">Advance Directives Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-28944</a>	
section	1..1	SHALL		<a href="#">1198-28945</a>	<a href="#">Functional Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30237</a>	
section	1..1	SHALL		<a href="#">1198-30238</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)</a>
component	0..1	MAY		<a href="#">1198-30904</a>	
section	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Medical Equipment Section (V2)</a>

				<a href="#">30905</a>	<a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.23:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198- 30906</a>	
section	1..1	SHALL		<a href="#">1198- 30907</a>	<a href="#">Mental Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.56:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198- 30909</a>	
section	1..1	SHALL		<a href="#">1198- 30910</a>	<a href="#">Nutrition Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.57)</a>

## 2.1.4 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier:  
[urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8375) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.1.4"** (CONF:1198-10040).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32502).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32935).

The Consultation Note recommends use of the document type code 11488-4 "Consult Note", with further specification provided by author or performer, setting, or specialty. When pre-coordinated codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC document type.

3. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [ConsultDocumentType](#) [urn:oid:2.16.840.1.113883.11.20.9.31 DYNAMIC](#) (CONF:1198-17176).

### 2.1.4.1 participant

This participant represents the person to contact for questions about the consult summary. This call back contact individual may be a different person than the individual(s) identified in the author or legalAuthenticator participant.

4. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31656) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CALLBCK"** call back contact (CodeSystem: HL7ParticipationType [urn:oid:2.16.840.1.113883.5.90 DYNAMIC](#)) (CONF:1198-31657).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31658).

- i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **DYNAMIC**) (CONF:1198-31659).
- ii. This associatedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31660).
- iii. This associatedEntity **SHOULD** contain zero or more [0..\*] **addr** (CONF:1198-31661).
- iv. This associatedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-31662).
- v. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31663).
  - 1. This associatedPerson **SHALL** contain at least one [1..\*] **name** (CONF:1198-31664).
- vi. This associatedEntity **MAY** contain zero or one [0..1] **scopingOrganization** (CONF:1198-31665).

#### 2.1.4.2 inFulfillmentOf

The inFulfillmentOf element describes prior orders that are fulfilled (in whole or part) by the service events described in the Consultation Note. For example, a prior order might be the consultation that is being reported in the note.

- 5. **SHALL** contain at least one [1..\*] **inFulfillmentOf** (CONF:1198-8382).
    - a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] **order** (CONF:1198-29923).
- Where a referral is being fulfilled by this consultation, this id would be the same as the id in the Patient Referral Act template.
- i. This order **SHALL** contain at least one [1..\*] **id** (CONF:1198-29924).

#### 2.1.4.3 componentOf

A Consultation Note is always associated with an encounter; the id element of the encompassingEncounter is required to be present and represents the identifier for the encounter.

- 6. **SHALL** contain exactly one [1..1] **componentOf** (CONF:1198-8386).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-8387).
    - i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-8388).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **US\_Realm Date and Time (DT.US.FIELDDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-8389).
    - iii. This encompassingEncounter **MAY** contain zero or one [0..1] **responsibleParty** (CONF:1198-8391).
      - 1. The responsibleParty, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32904).

- a. This assignedEntity **SHALL** contain an assignedPerson or a representedOrganization or both (CONF:1198-32905).

The encounterParticipant element represents persons who participated in the encounter and not necessarily the entire episode of care.

- iv. This encompassingEncounter **MAY** contain zero or more [0..\*] **encounterParticipant** (CONF:1198-8392).
  - 1. The encounterParticipant, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32902).
    - a. This assignedEntity **SHALL** contain an assignedPerson or a representedOrganization or both (CONF:1198-32906).

#### 2.1.4.4 component

- 7. **SHALL** contain exactly one [1..1] **component** (CONF:1198-8397).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-28895).
    - i. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28896) such that it
      - 1. **SHALL** contain exactly one [1..1] [Assessment Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8) (CONF:1198-28897).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28898) such that it
      - 1. **SHALL** contain exactly one [1..1] [Assessment and Plan Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09) (CONF:1198-28899).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28900) such that it
      - 1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-28901).
    - iv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28904) such that it
      - 1. **SHALL** contain exactly one [1..1] [Reason for Visit Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12) (CONF:1198-28905).
    - v. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28906) such that it
      - 1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-28907).
    - vi. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28908) such that it

1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)  
(CONF:1198-28909).
- vii. This structuredBody **SHALL** contain exactly one [1..1] **component**  
(CONF:1198-28910) such that it
  1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01)  
(CONF:1198-28911).
- viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28912) such that it
  1. **SHALL** contain exactly one [1..1] [Chief Complaint Section](#)  
(identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)  
(CONF:1198-28913).
- ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28915) such that it
  1. **SHALL** contain exactly one [1..1] [Chief Complaint and Reason for Visit Section](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.2.13) (CONF:1198-28916).
- x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28917) such that it
  1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)  
(CONF:1198-28918).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28919) such that it
  1. **SHALL** contain exactly one [1..1] [General Status Section](#)  
(identifier: urn:oid:2.16.840.1.113883.10.20.2.5)  
(CONF:1198-28920).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28921) such that it
  1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)  
(CONF:1198-28922).
- xiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28923) such that it
  1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01)  
(CONF:1198-28924).
- xiv. This structuredBody **SHOULD** contain zero or one [0..1] **component**  
(CONF:1198-28925) such that it

1. **SHALL** contain exactly one [1..1] [Medications Section \(entries required\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09)  
(CONF:1198-28926).
- xv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28928) such that it
  1. **SHALL** contain exactly one [1..1] [Problem Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)  
(CONF:1198-28929).
- xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28930) such that it
  1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries optional\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)  
(CONF:1198-28931).
- xvii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28932) such that it
  1. **SHALL** contain exactly one [1..1] [Results Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)  
(CONF:1198-28933).
- xviii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28934) such that it
  1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
(CONF:1198-28935).
- xix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28936) such that it
  1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)  
(CONF:1198-28937).
- xx. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28942) such that it
  1. **SHALL** contain exactly one [1..1] [Advance Directives Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01)  
(CONF:1198-28943).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28944) such that it
  1. **SHALL** contain exactly one [1..1] [Functional Status Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)  
(CONF:1198-28945).

- xxii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30237) such that it
1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18) (CONF:1198-30238).
- xxiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30904) such that it
1. **SHALL** contain exactly one [1..1] [Medical Equipment Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09) (CONF:1198-30905).
- xxiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30906) such that it
1. **SHALL** contain exactly one [1..1] [Mental Status Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01) (CONF:1198-30907).
- xxv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30909) such that it
1. **SHALL** contain exactly one [1..1] [Nutrition Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-30910).
- xxvi. This structuredBody **SHALL NOT** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present (CONF:1198-28939).
- xxvii. This structuredBody **SHALL NOT** contain a Chief Complaint and Reason for Visit Section (2.16.840.1.113883.10.20.22.2.13) when either a Chief Complaint Section (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or a Reason for Visit Section (2.16.840.1.113883.10.20.22.2.12) is present (CONF:1198-28940).
- xxviii. **SHALL** include a Reason for Referral or Reason for Visit section (CONF:1198-9504).
- xxix. **SHALL** include an Assessment and Plan Section, or both an Assessment Section and a Plan of Treatment Section (CONF:1198-9501).

**Table 28: ConsultDocumentType**

Value Set: ConsultDocumentType urn:oid:2.16.840.1.113883.11.20.9.31 Specific URL Pending Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
11488-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Consult note
34099-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Cardiology Consult note
34756-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentistry Consult note
34758-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dermatology Consult note
34760-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Diabetology Consult note
34879-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Endocrinology Consult note
34761-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Gastroenterology Consult note
34764-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	General Medicine Consult note
34776-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Gerontology Consult note
34779-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Hematology + Medical Oncology Consult note
...			

**Figure 22: Consultation Note Callback participant Example**

```
<participant typeCode="CALLBCK">
    <time value="20050329224411+0500" />
    <associatedEntity classCode="ASSIGNED">
        <id extension="99999999" root="2.16.840.1.113883.4.6" />
        <code code="200000000X" codeSystem="2.16.840.1.113883.6.101"
displayName="Allopathic & Osteopathic Physicians" />
        <addr>
            <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
            <city>Ann Arbor</city>
            <state>MI</state>
            <postalCode>97857</postalCode>
            <country>US</country>
        </addr>
        <telecom use="WP" value="tel:555-555-1002" />
        <associatedPerson>
            <name>
                <given>Henry</given>
                <family>Seven</family>
                <suffix>DO</suffix>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
```

**Figure 23: Consultation Note (V2) inFulfillmentOf Example**

```
<inFulfillmentOf typeCode="FLFS">
    <order classCode="ACT" moodCode="RQO">
        <id root="2.16.840.1.113883.6.96" extension="1298989898" />
        <code code="388975008" displayName="Weight Reduction Consultation"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="CPT4" />
    </order>
</inFulfillmentOf>
```

**Figure 24: Consultation Note structuredBody Example**

```
<component>
  <structuredBody>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.22.2.6.1"
          extension="2015-08-01" />
        <!-- Allergies section template -->
        <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
          displayName="Allergies, adverse reactions, alerts"
          codeSystemName="LOINC" />
        <title>Allergies, Adverse Reactions, Alerts</title>
        ...
      ...
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.22.2.8" />
        <!-- Assessment-->
        <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="51848-0" displayName="ASSESSMENT" />
        <title>ASSESSMENT</title>
        ...
      ...
      </section>
    </component>
    <component>
      <section>
        <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.4" />
        <!-- History of Present Illness -->
        <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="10164-2" displayName="HISTORY OF PRESENT ILLNESS" />
        <title>HISTORY OF PRESENT ILLNESS</title>
        ...
      ...
      </section>
    </component>
    <component>
      <section>
        <!--MEDICATION SECTION (V2) (coded entries required) -->
        <templateId root="2.16.840.1.113883.10.20.22.2.1.1" extension="2014-06-09"
        />
        <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="HISTORY OF MEDICATION USE" />
        <title>MEDICATIONS</title>
        ...
      ...
      </section>
    </component>
    <component>
      <section>
```

```

<templateId root="2.16.840.1.113883.10.20.2.10" extension="2015-08-01" />
<!-- Physical Exam (V3) -->
<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
      code="29545-1" displayName="PHYSICAL FINDINGS" />
<title>PHYSICAL EXAMINATION</title>
...
</section>
</component>
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.22.2.10"
                extension="2014-06-09" />
    <!-- Plan of Treatment Section (V2) template -->
    <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="Treatment plan" />
    <title>PLAN OF CARE</title>
    ...
  </section>
</component>
<component>
  <section>
    <!-- Problem Section (entries required) (V3) -->
    <templateId root="2.16.840.1.113883.10.20.22.2.5.1" extension="2015-08-01"
/>
    <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="PROBLEM LIST" />
    <title>PROBLEMS</title>
    ...
  </section>
</component>
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.22.2.7"
                extension="2014-06-09" />
    <!-- Procedures Section (entries optional) (V2) -->
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="HISTORY OF PROCEDURES" />
    <title>PROCEDURES</title>
    ...
  </section>
</component>
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.1"
                extension="2014-06-09" />
    <!-- Reason for Referral Section V2 -->
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="42349-1" displayName="REASON FOR REFERRAL" />
    <title>REASON FOR REFERRAL</title>
  </section>
</component>

```

```

    ...

```

```

        </section>
    </component>
    <component>
        <section>
            <templateId root="2.16.840.1.113883.10.20.22.2.3.1" extension="2015-08-01"
/>
        <!-- Results Section (entries required) (V3) -->
        <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC" displayName="RESULTS" />
        <title>RESULTS</title>
        ...

```

```

        </section>
    </component>
    <component>
        <section>
            <templateId root="2.16.840.1.113883.10.20.22.2.17" extension="2015-08-01"
/>
        <!-- Social history section (V3)-->
        <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
              displayName="Social History" />
        <title>SOCIAL HISTORY</title>
        ...

```

```

        </section>
    </component>
    <component>
        <section>
            <templateId root="2.16.840.1.113883.10.20.22.2.4.1" extension="2015-08-01"
/>
        <!-- Vital Signs Section (V3)-->
        <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC" displayName="VITAL SIGNS" />
        <title>VITAL SIGNS</title>
        ...

```

```

        </section>
    </component>
</structuredBody>
</component>
```

## 2.1.5 Continuity of Care Document (CCD) (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.2:2015-08-01 (open)]

**Table 29: Continuity of Care Document (CCD) (V3) Contexts**

Contained By:	Contains:
	<a href="#">Medications Section (entries required) (V2)</a> (required) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Nutrition Section</a> (optional) <a href="#">Procedures Section (entries required) (V2)</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Immunizations Section (entries required) (V3)</a> (optional) <a href="#">Results Section (entries required) (V3)</a> (required) <a href="#">Vital Signs Section (entries required) (V3)</a> (required) <a href="#">Problem Section (entries required) (V3)</a> (required) <a href="#">Payers Section (V3)</a> (optional) <a href="#">Social History Section (V3)</a> (required) <a href="#">Advance Directives Section (entries optional) (V3)</a> (optional) <a href="#">Family History Section (V3)</a> (optional) <a href="#">Allergies and Intolerances Section (entries required) (V3)</a> (required) <a href="#">Encounters Section (entries optional) (V3)</a> (optional)

This document type was originally based on the Continuity of Care Document (CCD) Release 1.1 which itself was derived from HITSP C32 and CCD Release 1.0.

The Continuity of Care Document (CCD) represents a core data set of the most relevant administrative, demographic, and clinical information facts about a patient's healthcare, covering one or more healthcare encounters. It provides a means for one healthcare practitioner, system, or setting to aggregate all of the pertinent data about a patient and forward it to another to support the continuity of care.

The primary use case for the CCD is to provide a snapshot in time containing the germane clinical, demographic, and administrative data for a specific patient. The key characteristic of a CCD is that the ServiceEvent is constrained to "PCPR". This means it does not function to report new ServiceEvents associated with performing care. It reports on care that has already been provided. The CCD provides a historical tally of the care over a range of time and is not a record of new services delivered.

More specific use cases, such as a Discharge Summary, Transfer Summary, Referral Note, Consultation Note, or Progress Note, are available as alternative documents in this guide.

**Table 30: Continuity of Care Document (CCD) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.2:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8450</a>	
@root	1..1	SHALL		<a href="#">1198-10038</a>	2.16.840.1.113883.10.20.22.1.2
@extension	1..1	SHALL		<a href="#">1198-32516</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17180</a>	
@code	1..1	SHALL		<a href="#">1198-17181</a>	34133-9
@codeSystem	1..1	SHALL		<a href="#">1198-32138</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
author	1..*	SHALL		<a href="#">1198-9442</a>	
assignedAuthor	1..1	SHALL		<a href="#">1198-9443</a>	
documentationOf	1..1	SHALL		<a href="#">1198-8452</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-8480</a>	
@classCode	1..1	SHALL		<a href="#">1198-8453</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR
effectiveTime	1..1	SHALL		<a href="#">1198-8481</a>	
low	1..1	SHALL		<a href="#">1198-8454</a>	
high	1..1	SHALL		<a href="#">1198-8455</a>	
performer	0..*	SHOULD		<a href="#">1198-8482</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8458</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
assignedEntity	0..1	MAY		<a href="#">1198-8459</a>	
id	1..*	SHALL		<a href="#">1198-30882</a>	
assignedPerson	0..1	MAY		<a href="#">1198-32467</a>	
component	1..1	SHALL		<a href="#">1198-30659</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30660</a>	

component	1..1	SHALL		<a href="#">1198-30661</a>	
section	1..1	SHALL		<a href="#">1198-30662</a>	Allergies and Intolerances Section (entries required) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01</a> )
component	1..1	SHALL		<a href="#">1198-30663</a>	
section	1..1	SHALL		<a href="#">1198-30664</a>	Medications Section (entries required) (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09</a> )
component	1..1	SHALL		<a href="#">1198-30665</a>	
section	1..1	SHALL		<a href="#">1198-30666</a>	Problem Section (entries required) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01</a> )
component	0..1	SHOULD		<a href="#">1198-30667</a>	
section	1..1	SHALL		<a href="#">1198-30668</a>	Procedures Section (entries required) (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09</a> )
component	1..1	SHALL		<a href="#">1198-30669</a>	
section	1..1	SHALL		<a href="#">1198-30670</a>	Results Section (entries required) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30671</a>	
section	1..1	SHALL		<a href="#">1198-30672</a>	Advance Directives Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30673</a>	
section	1..1	SHALL		<a href="#">1198-30674</a>	Encounters Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30675</a>	
section	1..1	SHALL		<a href="#">1198-30676</a>	Family History Section (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-</a>	

				<a href="#">30677</a>	
section	1..1	SHALL		<a href="#">1198-30678</a>	<a href="#">Functional Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30679</a>	
section	1..1	SHALL		<a href="#">1198-30680</a>	<a href="#">Immunizations Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30681</a>	
section	1..1	SHALL		<a href="#">1198-30682</a>	<a href="#">Medical Equipment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30683</a>	
section	1..1	SHALL		<a href="#">1198-30684</a>	<a href="#">Payers Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.18:2015-08-01)</a>
component	0..1	SHOULD		<a href="#">1198-30685</a>	
section	1..1	SHALL		<a href="#">1198-30686</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)</a>
component	1..1	SHALL		<a href="#">1198-30687</a>	
section	1..1	SHALL		<a href="#">1198-30688</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)</a>
component	1..1	SHALL		<a href="#">1198-30689</a>	
section	1..1	SHALL		<a href="#">1198-30690</a>	<a href="#">Vital Signs Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-32143</a>	
section	1..1	SHALL		<a href="#">1198-32144</a>	<a href="#">Mental Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-32624</a>	
section	1..1	SHALL		<a href="#">1198-32625</a>	<a href="#">Nutrition Section (identifier: urn:oid:2.16.840.1.113883.10.2)</a>

					<a href="#">0.22.2.57</a>
--	--	--	--	--	---------------------------

## 2.1.6 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8450) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.2" (CONF:1198-10038).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32516).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32936).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17180).
  - a. This code **SHALL** contain exactly one [1..1] @code="34133-9" Summarization of Episode Note (CONF:1198-17181).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32138).

### 2.1.6.1 author

4. **SHALL** contain at least one [1..\*] **author** (CONF:1198-9442).
  - a. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1198-9443).
    - i. Such assignedAuthors **SHALL** contain (exactly one [1..1] assignedPerson) or (exactly one [1..1] assignedAuthoringDevice and exactly one [1..1] representedOrganization) (CONF:1198-8456).
    - ii. If assignedAuthor has an associated representedOrganization with no assignedPerson or assignedAuthoringDevice, then the value for "ClinicalDocument/author/assignedAuthor/id/@NullFlavor" **SHALL** be "NA" "Not applicable" 2.16.840.1.113883.5.1008 NullFlavor STATIC (CONF:1198-8457).

### 2.1.6.2 documentationOf

The documentationOf relationship in a Continuity Care Document contains the representation of providers who are wholly or partially responsible for the safety and well-being of a subject of care.

5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1198-8452).

The main activity being described by a CCD is the provision of healthcare over a period of time. This is shown by setting the value of serviceEvent/@classCode to "PCPR" (care provision) and indicating the duration over which care was provided in serviceEvent/effectiveTime. Additional data from outside this duration may also be included if it is relevant to care provided during that time range (e.g., reviewed during the stated time range).

NOTE: Implementations originating a CCD should take care to discover what the episode of care being summarized is. For example, when a patient fills out a form providing relevant health history, the episode of care being documented might be from birth to the present.

- a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-8480).
  - i. This serviceEvent **SHALL** contain exactly one [1..1] **@classCode="PCPR"** Care Provision (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8453).
  - ii. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8481).
    1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-8454).
    2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1198-8455).

#### 2.1.6.3 performer

The serviceEvent/performer represents the healthcare providers involved in the current or pertinent historical care of the patient. Preferably, the patient's key healthcare providers would be listed, particularly their primary physician and any active consulting physicians, therapists, and counselors.

- iii. This serviceEvent **SHOULD** contain zero or more [0..\*] **performer** (CONF:1198-8482).
  1. The performer, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** Participation physical performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8458).
  2. The performer, if present, **MAY** contain zero or one [0..1] **assignedEntity** (CONF:1198-8459).
    - a. The assignedEntity, if present, **SHALL** contain at least one [1..\*] **id** (CONF:1198-30882) such that it
      - i. If this assignedEntity is an assignedPerson, the assignedEntity/id **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:1198-32466).
    - b. The assignedEntity, if present, **MAY** contain zero or one [0..1] **assignedPerson** (CONF:1198-32467).

#### 2.1.6.4 component

6. **SHALL** contain exactly one [1..1] **component** (CONF:1198-30659).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30660).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30661) such that it

1. **SHALL** contain exactly one [1..1] Allergies and Intolerances Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01) (CONF:1198-30662).
- ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30663) such that it
  1. **SHALL** contain exactly one [1..1] Medications Section (entries required) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09) (CONF:1198-30664).
- iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30665) such that it
  1. **SHALL** contain exactly one [1..1] Problem Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01) (CONF:1198-30666).
- iv. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30667) such that it
  1. **SHALL** contain exactly one [1..1] Procedures Section (entries required) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09) (CONF:1198-30668).
- v. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30669) such that it
  1. **SHALL** contain exactly one [1..1] Results Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01) (CONF:1198-30670).
- vi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30671) such that it
  1. **SHALL** contain exactly one [1..1] Advance Directives Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01) (CONF:1198-30672).
- vii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30673) such that it
  1. **SHALL** contain exactly one [1..1] Encounters Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01) (CONF:1198-30674).
- viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30675) such that it
  1. **SHALL** contain exactly one [1..1] Family History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01) (CONF:1198-30676).

- ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30677) such that it
1. **SHALL** contain exactly one [1..1] [Functional Status Section \(V2\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)  
 (CONF:1198-30678).
- x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30679) such that it
1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries required\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.2.1:2015-08-01)  
 (CONF:1198-30680).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30681) such that it
1. **SHALL** contain exactly one [1..1] [Medical Equipment Section \(V2\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09)  
 (CONF:1198-30682).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30683) such that it
1. **SHALL** contain exactly one [1..1] [Payers Section \(V3\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.18:2015-08-01)  
 (CONF:1198-30684).
- xiii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30685) such that it
1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)  
 (CONF:1198-30686).
- xiv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30687) such that it
1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
 (CONF:1198-30688).
- xv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30689) such that it
1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries required\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)  
 (CONF:1198-30690).
- xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32143) such that it
1. **SHALL** contain exactly one [1..1] [Mental Status Section \(V2\)](#)  
 (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01)  
(CONF:1198-32144).

xvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32624) such that it

1. **SHALL** contain exactly one [1..1] **Nutrition Section** (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-32625).

**Figure 25: CCD (V2) author Example**

```
<author>
  <time value="201209151030-0800" />
  <assignedAuthor>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.6.101" codeSystemName="Healthcare Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555) 555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedAuthor>
</author>
```

**Figure 26: CCD (V2) Performer Example**

```
<performer typeCode="PRF">
    <functionCode code="PP" displayName="Primary Performer"
codeSystem="2.16.840.1.113883.12.443" codeSystemName="Provider Role">
        <originalText>Primary Care Provider</originalText>
    </functionCode>
    <assignedEntity>
        <id extension="5555555555" root="2.16.840.1.113883.4.6" />
        <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC" />
        <addr>
            ...
        </addr>
        <telecom use="WP" value="tel:+1(555) 555-1004" />
        <assignedPerson>
            <name>
                <given>Patricia</given>
                <given qualifier="CL">Patty</given>
                <family>Primary</family>
                <suffix qualifier="AC">M.D.</suffix>
            </name>
        </assignedPerson>
        <representedOrganization>
            ...
        </representedOrganization>
    </assignedEntity>
</performer>
```

**Figure 27: CCD (V2) serviceEvent Example**

```
<documentationOf>
    <serviceEvent classCode="PCPR">
        <!-- The effectiveTime reflects the provision of care summarized in the document.
        In this scenario, the provision of care summarized is the lifetime for
        the patient -->
        <effectiveTime>
            <low value="19750501" />
            <!-- The low value represents when the summarized provision of care began.
            In this scenario, the patient's date of birth -->
            <high value="20120915" />
            <!-- The high value represents when the summarized provision of care being
            ended. In this scenario, when chart summary was created -->
        </effectiveTime>
        <performer typeCode="PRF">
            ...
        </performer>
    </serviceEvent>
</documentationOf>
```

## 2.1.7 Diagnostic Imaging Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.5:2015-08-01 (open)]

**Table 31: Diagnostic Imaging Report (V3) Contexts**

Contained By:	Contains:
	<a href="#">DICOM Object Catalog Section - DCM 121181</a> (optional) <a href="#">Findings Section (DIR)</a> (required) <a href="#">Fetus Subject Context</a> (optional) <a href="#">Observer Context</a> (optional) <a href="#">Procedure Context</a> (optional) <a href="#">SOP Instance Observation</a> (optional) <a href="#">Text Observation</a> (optional) <a href="#">Code Observations</a> (optional) <a href="#">Quantity Measurement Observation</a> (optional) <a href="#">US Realm Person Name (PN.US.FIELDED)</a> (optional) <a href="#">Physician Reading Study Performer (V2)</a> (optional) <a href="#">Physician of Record Participant (V2)</a> (optional) <a href="#">US Realm Date and Time (DT.US.FIELDED)</a> (optional)

A Diagnostic Imaging Report (DIR) is a document that contains a consulting specialist's interpretation of image data. It conveys the interpretation to the referring (ordering) physician and becomes part of the patient's medical record. It is for use in Radiology, Endoscopy, Cardiology, and other imaging specialties.

**Table 32: Diagnostic Imaging Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.5:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8404</a>	
@root	1..1	SHALL		<a href="#">1198-10042</a>	2.16.840.1.113883.10.20.22.1.5
@extension	1..1	SHALL		<a href="#">1198-32515</a>	2014-06-09
id	1..1	SHALL		<a href="#">1198-30932</a>	
@root	1..1	SHALL		<a href="#">1198-30933</a>	
code	1..1	SHALL		<a href="#">1198-14833</a>	
@code	1..1	SHALL		<a href="#">1198-14834</a>	urn:oid:1.3.6.1.4.1.12009.10.2.5 (LOINC Imaging Document Codes)
informant	0..0	SHALL NOT		<a href="#">1198-8410</a>	
informationRecipient	0..*	MAY		<a href="#">1198-8411</a>	
participant	0..1	MAY		<a href="#">1198-8414</a>	
associatedEntity	1..1	SHALL		<a href="#">1198-31198</a>	
associatedPerson	1..1	SHALL		<a href="#">1198-31199</a>	
name	1..1	SHALL		<a href="#">1198-31200</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1</a>
inFulfillmentOf	0..*	MAY		<a href="#">1198-30936</a>	
order	1..1	SHALL		<a href="#">1198-30937</a>	
id	1..*	SHALL		<a href="#">1198-30938</a>	
documentationOf	1..1	SHALL		<a href="#">1198-8416</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-8431</a>	
@classCode	1..1	SHALL		<a href="#">1198-8430</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
id	0..*	SHOULD		<a href="#">1198-8418</a>	

code	1..1	SHALL		<a href="#">1198-8419</a>	
performer	0..*	SHOULD		<a href="#">1198-8422</a>	<a href="#">Physician Reading Study Performer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.6.2.1:2014-06-09)</a>
relatedDocument	0..1	MAY		<a href="#">1198-8432</a>	
parentDocument	1..1	SHALL		<a href="#">1198-32089</a>	
id	1..1	SHALL		<a href="#">1198-32090</a>	
componentOf	0..1	MAY		<a href="#">1198-30939</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-30940</a>	
id	1..*	SHALL		<a href="#">1198-30941</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-30943</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3)</a>
responsibleParty	0..1	MAY		<a href="#">1198-30945</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-30946</a>	
encounterParticipant	0..1	SHOULD		<a href="#">1198-30948</a>	<a href="#">Physician of Record Participant (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.6.2.2:2014-06-09)</a>
component	1..1	SHALL		<a href="#">1198-14907</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30695</a>	
component	1..1	SHALL		<a href="#">1198-30696</a>	
section	1..1	SHALL		<a href="#">1198-30697</a>	<a href="#">Findings Section (DIR) (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.2)</a>
component	0..1	SHOULD		<a href="#">1198-30698</a>	
section	1..1	SHALL		<a href="#">1198-30699</a>	<a href="#">DICOM Object Catalog Section - DCM 121181 (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.1)</a>
component	0..*	MAY		<a href="#">1198-31055</a>	
section	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">31056</a>	
code	1..1	SHALL		<a href="#">1198-31057</a>	
@code	1..1	SHALL		<a href="#">1198-31207</a>	urn:oid:2.16.840.1.113883.11.2 0.9.59 (DIRSectionTypeCodes)
title	0..1	SHOULD		<a href="#">1198-31058</a>	
text	0..1	SHOULD		<a href="#">1198-31059</a>	
subject	0..*	MAY		<a href="#">1198-31215</a>	
relatedSubject	1..1	SHALL		<a href="#">1198-31216</a>	<a href="#">Fetus Subject Context (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.3)</a>
author	0..*	MAY		<a href="#">1198-31217</a>	
assignedAuthor	1..1	SHALL		<a href="#">1198-31218</a>	<a href="#">Observer Context (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.4)</a>
entry	0..*	MAY		<a href="#">1198-31213</a>	
act	1..1	SHALL		<a href="#">1198-31214</a>	<a href="#">Procedure Context (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.5)</a>
entry	0..*	MAY		<a href="#">1198-31357</a>	
observation	1..1	SHALL		<a href="#">1198-31358</a>	<a href="#">Text Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.12)</a>
entry	0..*	MAY		<a href="#">1198-31359</a>	
observation	1..1	SHALL		<a href="#">1198-31360</a>	<a href="#">Code Observations (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.13)</a>
entry	0..*	MAY		<a href="#">1198-31361</a>	
observation	1..1	SHALL		<a href="#">1198-31362</a>	<a href="#">Quantity Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.14)</a>
entry	0..*	MAY		<a href="#">1198-31363</a>	
observation	1..1	SHALL		<a href="#">1198-31364</a>	<a href="#">SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.8)</a>
component	0..*	MAY		<a href="#">1198-31208</a>	

## 2.1.8 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8404) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.5" (CONF:1198-10042).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1198-32515).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32937).
3. **SHALL** contain exactly one [1..1] **id** (CONF:1198-30932).
  - a. This id **SHALL** contain exactly one [1..1] @root (CONF:1198-30933).

OIDs SHALL be represented in dotted decimal notation, where each decimal number is either 0 or starts with a nonzero digit. More formally, an OID SHALL be in the form of the regular expression: (0-2)|(.(1-9)[0-9]\*|0))+

- i. The ClinicalDocument/id/@root attribute **SHALL** be a syntactically correct OID, and **SHALL NOT** be a UUID (CONF:1198-30934).
- ii. OIDs **SHALL** be no more than 64 characters in length (CONF:1198-30935).

Preferred code is 18748-4 LOINC Diagnostic Imaging Report

4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14833).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet [LOINC Imaging Document Codes](#) urn:oid:1.3.6.1.4.1.12009.10.2.5 DYNAMIC (CONF:1198-14834).
5. **SHALL NOT** contain [0..0] **informant** (CONF:1198-8410).

### 2.1.8.1 informationRecipient

6. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:1198-8411).
  - a. The physician requesting the imaging procedure (ClinicalDocument/participant[@typeCode=REF]/associatedEntity), if present, **SHOULD** also be recorded as an informationRecipient, unless in the local setting another physician (such as the attending physician for an inpatient) is known to be the appropriate recipient of the report (CONF:1198-8412).
  - b. When no referring physician is present, as in the case of self-referred screening examinations allowed by law, the intendedRecipient **MAY** be absent. The intendedRecipient **MAY** also be the health chart of the patient, in which case the receivedOrganization **SHALL** be the scoping organization of that chart (CONF:1198-8413).

#### 2.1.8.2 participant

If participant is present, the associatedEntity/associatedPerson element SHALL be present and SHALL represent the physician requesting the imaging procedure (the referring physician AssociatedEntity that is the target of ClinicalDocument/participant@typeCode=REF).

7. **MAY** contain zero or one [0..1] **participant** (CONF:1198-8414) such that it
  - a. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31198).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31199).
      1. This associatedPerson **SHALL** contain exactly one [1..1] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-31200).

#### 2.1.8.3 inFulfillmentOf

An inFulfillmentOf element represents the Placer Order that is either a group of orders (modeled as PlacerGroup in the Placer Order RMIM of the Orders & Observations domain) or a single order item (modeled as ObservationRequest in the same RMIM). This optionality reflects two major approaches to the grouping of procedures as implemented in the installed base of imaging information systems. These approaches differ in their handling of grouped procedures and how they are mapped to identifiers in the Digital Imaging and Communications in Medicine (DICOM) image and structured reporting data. The example of a CT examination covering chest, abdomen, and pelvis will be used in the discussion below. In the IHE Scheduled Workflow model, the Chest CT, Abdomen CT, and Pelvis CT each represent a Requested Procedure, and all three procedures are grouped under a single Filler Order. The Filler Order number maps directly to the DICOM Accession Number in the DICOM imaging and report data. A widely deployed alternative approach maps the requested procedure identifiers directly to the DICOM Accession Number. The Requested Procedure ID in such implementations may or may not be different from the Accession Number, but is of little identifying importance because there is only one Requested Procedure per Accession Number. There is no identifier that formally connects the requested procedures ordered in this group.

8. **MAY** contain zero or more [0..\*] **inFulfillmentof** (CONF:1198-30936).
  - a. The inFulfillmentOf, if present, **SHALL** contain exactly one [1..1] **order** (CONF:1198-30937).
    - i. This order **SHALL** contain at least one [1..\*] **id** (CONF:1198-30938).  
Note: DICOM Accession Number in the DICOM imaging and report data

#### 2.1.8.4 documentationOf

Each serviceEvent indicates an imaging procedure that the provider describes and interprets in the content of the DIR. The main activity being described by this document is the interpretation of the imaging procedure. This is shown by setting the value of the @classCode attribute of the serviceEvent element to ACT, and indicating the duration over which care was provided in the effectiveTime element. Within each documentationOf element, there is one serviceEvent element. This event is the unit imaging procedure corresponding to a billable item. The type of imaging procedure may be further described in the serviceEvent/code element. This guide

makes no specific recommendations about the vocabulary to use for describing this event. In IHE Scheduled Workflow environments, one serviceEvent/id element contains the DICOM Study Instance UID from the Modality Worklist, and the second serviceEvent/id element contains the DICOM Requested Procedure ID from the Modality Worklist. These two ids are in a single serviceEvent. The effectiveTime for the serviceEvent covers the duration of the imaging procedure being reported. This event should have one or more performers, which may participate at the same or different periods of time. Service events map to DICOM Requested Procedures. That is, serviceEvent/id is the ID of the Requested Procedure.

9. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1198-8416) such that it
  - a. **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-8431) such that it
    - i. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8430).
    - ii. **SHOULD** contain zero or more [0..\*] **id** (CONF:1198-8418).
    - iii. **SHALL** contain exactly one [1..1] **code** (CONF:1198-8419).
      1. The value of serviceEvent/code **SHALL NOT** conflict with the ClinicalDocument/code. When transforming from DICOM SR documents that do not contain a procedure code, an appropriate nullFlavor **SHALL** be used on serviceEvent/code (CONF:1198-8420).
  - iv. **SHOULD** contain zero or more [0..\*] **Physician Reading Study Performer (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.6.2.1:2014-06-09) (CONF:1198-8422).

#### 2.1.8.5 relatedDocument

A DIR may have three types of parent document:

- A superseded version that the present document wholly replaces (typeCode = RPLC). DIRs may go through stages of revision prior to being legally authenticated. Such early stages may be drafts from transcription, those created by residents, or other preliminary versions. Policies not covered by this specification may govern requirements for retention of such earlier versions. Except for forensic purposes, the latest version in a chain of revisions represents the complete and current report.
- An original version that the present document appends (typeCode = APND). When a DIR is legally authenticated, it can be amended by a separate addendum document that references the original.
- A source document from which the present document is transformed (typeCode = XFRM). A DIR may be created by transformation from a DICOM Structured Report (SR) document or from another DIR. An example of the latter case is the creation of a derived document for inclusion of imaging results in a clinical document.

10. **MAY** contain zero or one [0..1] **relatedDocument** (CONF:1198-8432).
  - a. The relatedDocument, if present, **SHALL** contain exactly one [1..1] **parentDocument** (CONF:1198-32089).

- i. This parentDocument **SHALL** contain exactly one [1..1] **id** (CONF:1198-32090).
  - 1. OIDs **SHALL** be represented in dotted decimal notation, where each decimal number is either 0 or starts with a nonzero digit. More formally, an OID **SHALL** be in the form of the regular expression: ([0-2]).([1-9][0-9]\*|0))+ (CONF:1198-10031).
  - 2. OIDs **SHALL** be no more than 64 characters in length (CONF:1198-10032).
- b. When a Diagnostic Imaging Report has been transformed from a DICOM SR document, relatedDocument/@typeCode **SHALL** be XFRM, and relatedDocument/parentDocument/id **SHALL** contain the SOP Instance UID of the original DICOM SR document (CONF:1198-8433).

#### 2.1.8.6 componentOf

The id element of the encompassingEncounter represents the identifier for the encounter. When the diagnostic imaging procedure is performed in the context of a hospital stay or an outpatient visit for which there is an Encounter Number, that number should be present as the ID of the encompassingEncounter. The effectiveTime represents the time interval or point in time in which the encounter took place. The encompassing encounter might be that of the hospital or office visit in which the diagnostic imaging procedure was performed. If the effective time is unknown, a nullFlavor attribute can be used.

11. **MAY** contain zero or one [0..1] **componentOf** (CONF:1198-30939).

The id element of the encompassingEncounter represents the identifier for the encounter. When the diagnostic imaging procedure is performed in the context of a hospital stay or an outpatient visit for which there is an Encounter Number, that number should be present as the ID of the encompassingEncounter.

The effectiveTime represents the time interval or point in time in which the encounter took place. The encompassing encounter might be that of the hospital or office visit in which the diagnostic imaging procedure was performed. If the effective time is unknown, a nullFlavor attribute can be used.

- a. The componentOf, if present, **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-30940).
  - i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-30941).
    - 1. In the case of transformed DICOM SR documents, an appropriate null flavor **MAY** be used if the id is unavailable (CONF:1198-30942).
  - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DT.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-30943).
  - iii. This encompassingEncounter **MAY** contain zero or one [0..1] **responsibleParty** (CONF:1198-30945).
    - 1. The responsibleParty, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-30946).

- a. **SHOULD** contain zero or one [0..1] assignedPerson **OR**  
contain zero or one [0..1] representedOrganization  
(CONF:1198-30947).
- iv. This encompassingEncounter **SHOULD** contain zero or one [0..1] [Physician of Record Participant \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.6.2.2:2014-06-09) (CONF:1198-30948).

#### 2.1.8.7 component

12. **SHALL** contain exactly one [1..1] **component** (CONF:1198-14907).
- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30695).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30696) such that it
      - 1. **SHALL** contain exactly one [1..1] [Findings Section \(DIR\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.2) (CONF:1198-30697).
    - ii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30698) such that it
      - 1. **SHALL** contain exactly one [1..1] [DICOM Object Catalog Section - DCM 121181](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.1) (CONF:1198-30699).
        - a. The DICOM Object Catalog section (templateId 2.16.840.1.113883.10.20.6.1.1), if present, **SHALL** be the first section in the document Body (CONF:1198-31206).
    - iii. This structuredBody **MAY** contain zero or more [0..\*] **component** (CONF:1198-31055) such that it
      - 1. **SHALL** contain exactly one [1..1] **section** (CONF:1198-31056).
        - a. This section **SHALL** contain exactly one [1..1] **code** (CONF:1198-31057).

For sections listed in the DIR Section Type Codes table, the code element must contain a LOINC code or DCM code for sections that have no LOINC equivalent

- i. This code **SHALL** contain exactly one [1..1] **@code**, which **SHOULD** be selected from ValueSet [DIRSectionTypeCodes](#) urn:oid:2.16.840.1.113883.11.20.9.59 **DYNAMIC** (CONF:1198-31207).  
Note: The section/code SHOULD be selected from LOINC or DICOM for sections not listed in the DIR Section Type Codes table

There is no equivalent to section/title in DICOM SR, so for a CDA to SR transformation, the section/code will be transferred and the title element will be dropped.

- b. This section **SHOULD** contain zero or one [0..1] **title** (CONF:1198-31058).

- c. This section **SHOULD** contain zero or one [0..1] **text** (CONF:1198-31059).
  - i. If clinical statements are present, the section/text **SHALL** represent faithfully all such statements and **MAY** contain additional text (CONF:1198-31060).
  - ii. All text elements **SHALL** contain content. Text elements **SHALL** contain PCDATA or child elements (CONF:1198-31061).
  - iii. The text elements (and their children) **MAY** contain Web Access to DICOM Persistent Object (WADO) references to DICOM objects by including a linkHtml element where @href is a valid WADO URL and the text content of linkHtml is the visible text of the hyperlink (CONF:1198-31062).
- d. This section **MAY** contain zero or more [0..\*] **subject** (CONF:1198-31215) such that it
  - i. **SHALL** contain exactly one [1..1] [Fetus Subject Context](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.3) (CONF:1198-31216).

This author element is used when the author of a section is different from the author(s) listed in the Header

- e. This section **MAY** contain zero or more [0..\*] **author** (CONF:1198-31217) such that it
  - i. **SHALL** contain exactly one [1..1] [Observer Context](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.4) (CONF:1198-31218).

If the service context of a section is different from the value specified in documentationOf/serviceEvent, then the section SHALL contain one or more entries containing Procedure Context (templateId 2.16.840.1.113883.10.20.6.2.5), which will reset the context for any clinical statements nested within those elements

- f. This section **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31213) such that it
  - i. **SHALL** contain exactly one [1..1] [Procedure Context](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.5) (CONF:1198-31214).
- g. This section **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31357) such that it
  - i. **SHALL** contain exactly one [1..1] [Text Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.12) (CONF:1198-31358).

- h. This section **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31359) such that it
  - i. **SHALL** contain exactly one [1..1] [Code Observations](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.13) (CONF:1198-31360).
  - i. This section **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31361) such that it
    - i. **SHALL** contain exactly one [1..1] [Quantity Measurement Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.14) (CONF:1198-31362).
    - j. This section **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31363) such that it
      - i. **SHALL** contain exactly one [1..1] [SOP Instance Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:1198-31364).
  - k. This section **MAY** contain zero or more [0..\*] **component** (CONF:1198-31208).
    - i. **SHALL** contain child elements (CONF:1198-31210).
- l. All sections defined in the DIR Section Type Codes table **SHALL** be top-level sections (CONF:1198-31211).
- m. **SHALL** contain at least one text element or one or more component elements (CONF:1198-31212).

**Table 33: LOINC Imaging Document Codes**

Value Set: LOINC Imaging Document Codes urn:oid:1.3.6.1.4.1.12009.10.2.5 A value set of LOINC document type codes for Diagnostic Imaging Reports. Value Set Source: <a href="http://search.loinc.org/search.zul?query=%28class%3A%22*rad%22+scale%3Adoc%29+OR+%2811525-3+OR+18746-8+OR+18753-4+OR+18748-4+OR+18751-8+OR+18744-3+OR+29757-2+OR+42148-7%29+-status%3Adeprecated">http://search.loinc.org/search.zul?query=%28class%3A%22*rad%22+scale%3Adoc%29+OR+%2811525-3+OR+18746-8+OR+18753-4+OR+18748-4+OR+18751-8+OR+18744-3+OR+29757-2+OR+42148-7%29+-status%3Adeprecated</a>			
Code	Code System	Code System OID	Print Name
24754-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Administration of vasodilator into catheter of Vein
26376-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Administration of vasodilator into catheter of Vein - bilateral
26377-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Administration of vasodilator into catheter of Vein - left
26378-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Administration of vasodilator into catheter of Vein - right
30649-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Peripheral artery Fluoroscopic angiogram Additional angioplasty W contrast IA
30641-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Vein Fluoroscopic angiogram Additional angioplasty W contrast IV
36760-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	AV shunt Fluoroscopic angiogram Angioplasty W contrast
36762-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Extremity vessel Fluoroscopic angiogram Angioplasty W contrast
69067-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Unspecified body region Fluoroscopic angiogram Angioplasty W contrast
24543-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Aorta Fluoroscopic angiogram Angioplasty W contrast IA
...			

**Table 34: DIRSectionTypeCodes**

Value Set: DIRSectionTypeCodes urn:oid:2.16.840.1.113883.11.20.9.59 The Section Type codes used by DIR are all narrative document sections. The codes in this table are drawn from LOINC ( <a href="http://www.loinc.org/">http://www.loinc.org/</a> ) and DICOM ( <a href="http://medical.nema.org/">http://medical.nema.org/</a> ). The section/code should be selected from LOINC or DICOM for sections not listed in this table. Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
121181	DCM	urn:oid:1.2.840.10008.2.16.4	DICOM Object Catalog
121060	DCM	urn:oid:1.2.840.10008.2.16.4	History
121062	DCM	urn:oid:1.2.840.10008.2.16.4	Request
121064	DCM	urn:oid:1.2.840.10008.2.16.4	Current Procedure Descriptions
121066	DCM	urn:oid:1.2.840.10008.2.16.4	Prior Procedure Descriptions
121068	DCM	urn:oid:1.2.840.10008.2.16.4	Previous Findings
121070	DCM	urn:oid:1.2.840.10008.2.16.4	Findings (DIR)
121072	DCM	urn:oid:1.2.840.10008.2.16.4	Impressions
121074	DCM	urn:oid:1.2.840.10008.2.16.4	Recommendations
121076	DCM	urn:oid:1.2.840.10008.2.16.4	Conclusions
...			

**Figure 28: DIR Participant Example**

```
<participant typeCode="REF">
    <associatedEntity classCode="PROV">
        <id nullFlavor="NI" />
        <addr nullFlavor="NI" />
        <telecom nullFlavor="NI" />
        <associatedPerson>
            <name>
                <given>Amanda</given>
                <family>Assigned</family>
                <suffix>MD</suffix>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
```

## 2.1.9 Discharge Summary (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.8:2015-08-01 (open)]

**Table 35: Discharge Summary (V3) Contexts**

Contained By:	Contains:
	<a href="#">Review of Systems Section</a> (optional) <a href="#">Chief Complaint Section</a> (optional) <a href="#">Reason for Visit Section</a> (optional) <a href="#">Chief Complaint and Reason for Visit Section</a> (optional) <a href="#">History of Present Illness Section</a> (optional) <a href="#">Hospital Course Section</a> (required) <a href="#">Hospital Discharge Studies Summary Section</a> (optional) <a href="#">Hospital Discharge Physical Section</a> (optional) <a href="#">Hospital Discharge Instructions Section</a> (optional) <a href="#">Hospital Consultations Section</a> (optional) <a href="#">Plan of Treatment Section (V2)</a> (required) <a href="#">Nutrition Section</a> (optional) <a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Admission Diagnosis Section (V3)</a> (optional) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional) <a href="#">Discharge Diagnosis Section (V3)</a> (required) <a href="#">Discharge Medications Section (entries optional) (V3)</a> (optional) <a href="#">Discharge Medications Section (entries required) (V3)</a> (optional) <a href="#">Admission Medications Section (entries optional) (V3)</a> (optional) <a href="#">History of Past Illness Section (V3)</a> (optional) <a href="#">Vital Signs Section (entries optional) (V3)</a> (optional) <a href="#">Problem Section (entries optional) (V3)</a> (optional) <a href="#">Social History Section (V3)</a> (optional) <a href="#">Family History Section (V3)</a> (optional) <a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> (required)

The Discharge Summary is a document which synopsizes a patient's admission to a hospital, LTPAC provider, or other setting. It provides information for the continuation of care following discharge. The Joint Commission requires the following information to be included in the Discharge Summary (<http://www.jointcommission.org/>):

- The reason for hospitalization (the admission)
- The procedures performed, as applicable
- The care, treatment, and services provided

- The patient's condition and disposition at discharge
- Information provided to the patient and family
- Provisions for follow-up care

The best practice for a Discharge Summary is to include the discharge disposition in the display of the header.

**Table 36: Discharge Summary (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.8:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8463</a>	
@root	1..1	SHALL		<a href="#">1198-10044</a>	2.16.840.1.113883.10.20.22.1.8
@extension	1..1	SHALL		<a href="#">1198-32517</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17178</a>	
@code	1..1	SHALL		<a href="#">1198-17179</a>	urn:oid:2.16.840.1.113883.11.2 0.4.1 (DischargeSummaryDocumentTypeCode)
participant	0..*	MAY		<a href="#">1198-8467</a>	
componentOf	1..1	SHALL		<a href="#">1198-8471</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-8472</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-32611</a>	
low	1..1	SHALL		<a href="#">1198-8473</a>	
high	1..1	SHALL		<a href="#">1198-8475</a>	
dischargeDispositionCode	1..1	SHALL		<a href="#">1198-8476</a>	urn:oid:2.16.840.1.113883.3.88. 12.80.33 (NUBC UB-04 FL17 Patient Status)
responsibleParty	0..1	MAY		<a href="#">1198-8479</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-32613</a>	
encounterParticipant	0..*	MAY		<a href="#">1198-8478</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-32615</a>	
component	1..1	SHALL		<a href="#">1198-9539</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30518</a>	
component	1..1	SHALL		<a href="#">1198-30519</a>	
section	1..1	SHALL		<a href="#">1198-30520</a>	Allergies and Intolerances Section (entries optional) (V3)

					<a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.6:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198- 30521</a>	
section	1..1	SHALL		<a href="#">1198- 30522</a>	<a href="#">Hospital Course Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3. 1.3.5</a>
component	1..1	SHALL		<a href="#">1198- 30523</a>	
section	1..1	SHALL		<a href="#">1198- 30524</a>	<a href="#">Discharge Diagnosis Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.24:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198- 30525</a>	
section	1..1	SHALL		<a href="#">1198- 30526</a>	<a href="#">Discharge Medications Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.11:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198- 30527</a>	
section	1..1	SHALL		<a href="#">1198- 30528</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.10:2014-06-09</a>
component	0..1	MAY		<a href="#">1198- 30529</a>	
section	1..1	SHALL		<a href="#">1198- 30530</a>	<a href="#">Chief Complaint Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3. 1.1.13.2.1</a>
component	0..1	MAY		<a href="#">1198- 30531</a>	
section	1..1	SHALL		<a href="#">1198- 30532</a>	<a href="#">Chief Complaint and Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.13</a>
component	0..1	MAY		<a href="#">1198- 30533</a>	
section	1..1	SHALL		<a href="#">1198- 30534</a>	<a href="#">Nutrition Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.57</a>
component	0..1	MAY		<a href="#">1198- 30535</a>	
section	1..1	SHALL		<a href="#">1198- 30536</a>	<a href="#">Family History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.15:2015-08-01</a>

component	0..1	MAY		<a href="#">1198-30537</a>	
section	1..1	SHALL		<a href="#">1198-30538</a>	<a href="#">Functional Status Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.14:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-30539</a>	
section	1..1	SHALL		<a href="#">1198-30540</a>	<a href="#">History of Past Illness Section</a> <a href="#">(V3) (identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.20:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-30541</a>	
section	1..1	SHALL		<a href="#">1198-30542</a>	<a href="#">History of Present Illness Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:1.3.6.1.4.1.19376.1.5.3.</a> <a href="#">1.3.4</a>
component	0..1	MAY		<a href="#">1198-30543</a>	
section	1..1	SHALL		<a href="#">1198-30544</a>	<a href="#">Admission Diagnosis Section</a> <a href="#">(V3) (identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.43:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-30545</a>	
section	1..1	SHALL		<a href="#">1198-30546</a>	<a href="#">Admission Medications Section</a> <a href="#">(entries optional) (V3) (identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.44:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-30547</a>	
section	1..1	SHALL		<a href="#">1198-30548</a>	<a href="#">Hospital Consultations Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.42</a>
component	0..1	MAY		<a href="#">1198-30549</a>	
section	1..1	SHALL		<a href="#">1198-30550</a>	<a href="#">Hospital Discharge Instructions</a> <a href="#">Section (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.41</a>
component	0..1	MAY		<a href="#">1198-30551</a>	
section	1..1	SHALL		<a href="#">1198-30552</a>	<a href="#">Hospital Discharge Physical</a> <a href="#">Section (identifier:</a> <a href="#">urn:oid:1.3.6.1.4.1.19376.1.5.3.</a> <a href="#">1.3.26</a>
component	0..1	MAY		<a href="#">1198-30553</a>	

section	1..1	SHALL		<a href="#">1198-30554</a>	Hospital Discharge Studies Summary Section (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.02.2.16</a> )
component	0..1	MAY		<a href="#">1198-30555</a>	
section	1..1	SHALL		<a href="#">1198-30556</a>	Immunizations Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30557</a>	
section	1..1	SHALL		<a href="#">1198-30558</a>	Problem Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30559</a>	
section	1..1	SHALL		<a href="#">1198-30560</a>	Procedures Section (entries optional) (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09</a> )
component	0..1	MAY		<a href="#">1198-30561</a>	
section	1..1	SHALL		<a href="#">1198-30562</a>	Reason for Visit Section (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.02.2.12</a> )
component	0..1	MAY		<a href="#">1198-30563</a>	
section	1..1	SHALL		<a href="#">1198-30564</a>	Review of Systems Section (identifier: <a href="#">urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18</a> )
component	0..1	MAY		<a href="#">1198-30565</a>	
section	1..1	SHALL		<a href="#">1198-30566</a>	Social History Section (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-30567</a>	
section	1..1	SHALL		<a href="#">1198-30568</a>	Vital Signs Section (entries optional) (V3) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01</a> )
component	0..1	MAY		<a href="#">1198-31586</a>	
section	1..1	SHALL		<a href="#">1198-31587</a>	Discharge Medications Section (entries required) (V3) (identifier:

					<a href="urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01">urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01</a>
--	--	--	--	--	---

## 2.1.10 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: <urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01>).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8463) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.8" (CONF:1198-10044).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32517).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32938).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17178).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [DischargeSummaryDocumentTypeCode](#) [urn:oid:2.16.840.1.113883.11.20.4.1 DYNAMIC](urn:oid:2.16.840.1.113883.11.20.4.1) (CONF:1198-17179).

### 2.1.10.1 participant

The participant element in the Discharge Summary header follows the General Header Constraints for participants. Discharge Summary does not specify any use for functionCode for participants. Local policies will determine how this element should be used in implementations.

4. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-8467).
  - a. When participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet 2.16.840.1.113883.11.20.9.33 INDRoleclassCodes STATIC 2011-09-30 (CONF:1198-8469).

### 2.1.10.2 componentOf

The Discharge Summary is always associated with a Hospital Admission using the encompassingEncounter element in the header.

5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:1198-8471).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-8472).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-32611).

The admission date is recorded in the componentOf/encompassingEncounter/effectiveTime/low.

1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-8473).

The discharge date is recorded in the componentOf/encompassingEncounter/effectiveTime/high.

2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1198-8475).

The dischargeDispositionCode records the disposition of the patient at time of discharge. Access to the National Uniform Billing Committee (NUBC) code system requires a membership. The following conformance statement aligns with HITSP C80 requirements.

The dischargeDispositionCode, @displayName, or NUBC UB-04 Print Name, must be displayed when the document is rendered.

- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **dischargeDispositionCode**, which **SHOULD** be selected from ValueSet [NUBC UB-04 FL17 Patient Status](#)  
urn:oid:2.16.840.1.113883.3.88.12.80.33 **DYNAMIC** (CONF:1198-8476).

The responsibleParty element represents only the party responsible for the encounter, not necessarily the entire episode of care.

- iii. This encompassingEncounter **MAY** contain zero or one [0..1] **responsibleParty** (CONF:1198-8479).
  1. The responsibleParty, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32613).
    - a. This assignedEntity **SHALL** contain an assignedPerson or a representedOrganization or both (CONF:1198-32898).

The encounterParticipant element represents persons who participated in the encounter and not necessarily the entire episode of care.

- iv. This encompassingEncounter **MAY** contain zero or more [0..\*] **encounterParticipant** (CONF:1198-8478).
  1. The encounterParticipant, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32615).
    - a. This assignedEntity **SHALL** contain an assignedPerson or a representedOrganization or both (CONF:1198-32899).

### 2.1.10.3 component

6. **SHALL** contain exactly one [1..1] **component** (CONF:1198-9539).

In this template (templateId 2.16.840.1.113883.10.20.22.1.8.2), coded entries are optional.

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30518).
  - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30519) such that it

1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01) (CONF:1198-30520).
- ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30521) such that it
  1. **SHALL** contain exactly one [1..1] [Hospital Course Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.5) (CONF:1198-30522).
- iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30523) such that it
  1. **SHALL** contain exactly one [1..1] [Discharge Diagnosis Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.24:2015-08-01) (CONF:1198-30524).
- iv. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30525) such that it
  1. **SHALL** contain exactly one [1..1] [Discharge Medications Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.11:2015-08-01) (CONF:1198-30526).
- v. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30527) such that it
  1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30528).
- vi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30529) such that it
  1. **SHALL** contain exactly one [1..1] [Chief Complaint Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) (CONF:1198-30530).
- vii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30531) such that it
  1. **SHALL** contain exactly one [1..1] [Chief Complaint and Reason for Visit Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.13) (CONF:1198-30532).
- viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30533) such that it
  1. **SHALL** contain exactly one [1..1] [Nutrition Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-30534).
- ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30535) such that it

1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)  
 (CONF:1198-30536).
- x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30537) such that it
  1. **SHALL** contain exactly one [1..1] [Functional Status Section \(V2\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)  
 (CONF:1198-30538).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30539) such that it
  1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)  
 (CONF:1198-30540).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30541) such that it
  1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier:  
 urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-30542).
- xiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30543) such that it
  1. **SHALL** contain exactly one [1..1] [Admission Diagnosis Section \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01)  
 (CONF:1198-30544).
- xiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30545) such that it
  1. **SHALL** contain exactly one [1..1] [Admission Medications Section \(entries optional\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01)  
 (CONF:1198-30546).
- xv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30547) such that it
  1. **SHALL** contain exactly one [1..1] [Hospital Consultations Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.42)  
 (CONF:1198-30548).
- xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30549) such that it
  1. **SHALL** contain exactly one [1..1] [Hospital Discharge Instructions Section](#) (identifier:  
 urn:oid:2.16.840.1.113883.10.20.22.2.41) (CONF:1198-30550).
- xvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30551) such that it

1. **SHALL** contain exactly one [1..1] [Hospital Discharge Physical Section](#) (identifier:  
urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.26) (CONF:1198-30552).
- xviii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30553) such that it
1. **SHALL** contain exactly one [1..1] [Hospital Discharge Studies Summary Section](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.2.16) (CONF:1198-30554).
- xix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30555) such that it
1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01) (CONF:1198-30556).
- xx. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30557) such that it
1. **SHALL** contain exactly one [1..1] [Problem Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01) (CONF:1198-30558).
- xxi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30559) such that it
1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries optional\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09) (CONF:1198-30560).
- xxii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30561) such that it
1. **SHALL** contain exactly one [1..1] [Reason for Visit Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12) (CONF:1198-30562).
- xxiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30563) such that it
1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18) (CONF:1198-30564).
- xxiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30565) such that it
1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01) (CONF:1198-30566).
- xxv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30567) such that it

1. **SHALL** contain exactly one [1..1] Vital Signs Section (entries optional) (V3) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01)  
(CONF:1198-30568).
- xxvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-31586) such that it
1. **SHALL** contain exactly one [1..1] Discharge Medications Section (entries required) (V3) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.11.1:2015-08-01)  
(CONF:1198-31587).
- xxvii. This structuredBody **SHALL NOT** contain a Chief Complaint and Reason for Visit Section (2.16.840.1.113883.10.20.22.2.13) when either a Chief Complaint Section (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or a Reason for Visit Section (2.16.840.1.113883.10.20.22.2.12) is present (CONF:1198-30569).

**Table 37: DischargeSummaryDocumentTypeCode**

Value Set: DischargeSummaryDocumentTypeCode urn:oid:2.16.840.1.113883.11.20.4.1 A value set of LOINC document codes for discharge summaries.
---

Specific URL Pending

Value Set Source: <http://www.loinc.org/>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
18842-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Discharge summary
11490-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician Discharge summary
28655-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician attending Discharge summary
29761-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentist Discharge summary
34745-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Nurse Discharge summary
34105-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Hospital Discharge summary
34106-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician Hospital Discharge summary
...			

**Table 38: NUBC UB-04 FL17 Patient Status**

Value Set: NUBC UB-04 FL17 Patient Status urn:oid:2.16.840.1.113883.3.88.12.80.33 National Uniform Billing Committee (NUBC) code system. Value Set Source: <a href="http://www.nubc.org">http://www.nubc.org</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
01	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged to Home or Self Care (Routine Discharge)
02	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged/transferred to a Short-Term General Hospital for Inpatient Care
03	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged/transferred to Skilled Nursing Facility (SNF) with Medicare Certification in Anticipation of Skilled Care
04	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged/transferred to a Facility that Provides Custodial or Supportive Care
05	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged/transferred to a Designated Cancer Center or Children's Hospital
06	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Discharged/transferred to Home Under Care of an Organized Home Health Service Organization in Anticipation of Covered Skilled Care
07	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Left Against Medical Advice or Discontinued Care
08	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Reserved for Assignment by the NUBC
09	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Admitted as an Inpatient to this Hospital
20	NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.11388 3.6.301.5	Expired
...			

**Figure 29: Discharge Summary encompassingEncounter Example**

```
<componentOf>
  <encompassingEncounter>
    <id extension="9937012" root="2.16.840.1.113883.19" />
    <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4" code="99213"
displayName="Evaluation and Management" />
    <effectiveTime>
      <low value="20090227130000+0500" />
      <high value="20090227130000+0500" />
    </effectiveTime>
    <dischargeDispositionCode code="01" codeSystem="2.16.840.1.113883.12.112"
displayName="Routine Discharge" codeSystemName="HL7 Discharge Disposition" />
    <location>
      <healthCareFacility>
        <id root="2.16.540.1.113883.19.2" />
      </healthCareFacility>
    </location>
  </encompassingEncounter>
</componentOf>
```

### 2.1.11 History and Physical (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.3:2015-08-01 (open)]

**Table 39: History and Physical (V3) Contexts**

Contained By:	Contains:
	<a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (required) <a href="#">Chief Complaint Section</a> (optional) <a href="#">Reason for Visit Section</a> (optional) <a href="#">Chief Complaint and Reason for Visit Section</a> (optional) <a href="#">History of Present Illness Section</a> (optional) <a href="#">General Status Section</a> (required) <a href="#">Medications Section (entries optional) (V2)</a> (required) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Assessment and Plan Section (V2)</a> (optional) <a href="#">Instructions Section (V2)</a> (optional) <a href="#">US Realm Date and Time (DT.US.FIELDED)</a> (required) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional) <a href="#">Results Section (entries optional) (V3)</a> (required) <a href="#">History of Past Illness Section (V3)</a> (required) <a href="#">Vital Signs Section (entries optional) (V3)</a> (required) <a href="#">Problem Section (entries optional) (V3)</a> (optional) <a href="#">Physical Exam Section (V3)</a> (required) <a href="#">Social History Section (V3)</a> (required)

Contained By:	Contains:
	<p><a href="#">Family History Section (V3)</a> (required)</p> <p><a href="#">Allergies and Intolerances Section (entries optional)</a></p> <p><a href="#">(V3)</a> (required)</p>

A History and Physical (H&P) note is a medical report that documents the current and past conditions of the patient. It contains essential information that helps determine an individual's health status.

The first portion of the report is a current collection of organized information unique to an individual. This is typically supplied by the patient or the caregiver, concerning the current medical problem or the reason for the patient encounter. This information is followed by a description of any past or ongoing medical issues, including current medications and allergies. Information is also obtained about the patient's lifestyle, habits, and diseases among family members.

The next portion of the report contains information obtained by physically examining the patient and gathering diagnostic information in the form of laboratory tests, imaging, or other diagnostic procedures.

The report ends with the clinician's assessment of the patient's situation and the intended plan to address those issues.

A History and Physical Examination is required upon hospital admission as well as before operative procedures. An initial evaluation in an ambulatory setting is often documented in the form of an H&P note.

**Table 40: History and Physical (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.3:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8283</a>	
@root	1..1	SHALL		<a href="#">1198-10046</a>	2.16.840.1.113883.10.20.22.1.3
@extension	1..1	SHALL		<a href="#">1198-32518</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17185</a>	
@code	1..1	SHALL		<a href="#">1198-17186</a>	urn:oid:2.16.840.1.113883.1.11.20.22 (HPDocumentType)
informationRecipient	0..*	MAY		<a href="#">1198-32482</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-32483</a>	
participant	0..*	MAY		<a href="#">1198-8286</a>	
inFulfillmentOf	0..*	MAY		<a href="#">1198-8336</a>	
componentOf	1..1	SHALL		<a href="#">1198-8338</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-8339</a>	
id	1..*	SHALL		<a href="#">1198-8340</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-8341</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.3</a>
responsibleParty	0..1	MAY		<a href="#">1198-8345</a>	
encounterParticipant	0..*	MAY		<a href="#">1198-8342</a>	
location	0..1	MAY		<a href="#">1198-8344</a>	
component	1..1	SHALL		<a href="#">1198-8349</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30570</a>	
component	1..1	SHALL		<a href="#">1198-30571</a>	
section	1..1	SHALL		<a href="#">1198-30572</a>	<a href="#">Allergies and Intolerances Section (entries optional) (V3) (identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01</a>
component	0..1	MAY	<a href="#">1198-30573</a>	
section	1..1	SHALL	<a href="#">1198-30574</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.8)</a>
component	0..1	MAY	<a href="#">1198-30575</a>	
section	1..1	SHALL	<a href="#">1198-30576</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)</a>
component	0..1	MAY	<a href="#">1198-30577</a>	
section	1..1	SHALL	<a href="#">1198-30578</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)</a>
component	0..1	MAY	<a href="#">1198-30579</a>	
section	1..1	SHALL	<a href="#">1198-30580</a>	<a href="#">Chief Complaint Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)</a>
component	0..1	MAY	<a href="#">1198-30581</a>	
section	1..1	SHALL	<a href="#">1198-30582</a>	<a href="#">Chief Complaint and Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.13)</a>
component	1..1	SHALL	<a href="#">1198-30583</a>	
section	1..1	SHALL	<a href="#">1198-30584</a>	<a href="#">Family History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)</a>
component	1..1	SHALL	<a href="#">1198-30585</a>	
section	1..1	SHALL	<a href="#">1198-30586</a>	<a href="#">General Status Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.2.5)</a>
component	1..1	SHALL	<a href="#">1198-30587</a>	
section	1..1	SHALL	<a href="#">1198-30588</a>	<a href="#">History of Past Illness Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)</a>
component	0..1	SHOULD	<a href="#">1198-</a>	

				<a href="#">30589</a>	
section	1..1	SHALL		<a href="#">1198-30590</a>	<a href="#">History of Present Illness Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4)</a>
component	0..1	MAY		<a href="#">1198-30591</a>	
section	1..1	SHALL		<a href="#">1198-30592</a>	<a href="#">Immunizations Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30593</a>	
section	1..1	SHALL		<a href="#">1198-31385</a>	<a href="#">Instructions Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09)</a>
component	1..1	SHALL		<a href="#">1198-30595</a>	
section	1..1	SHALL		<a href="#">1198-30596</a>	<a href="#">Medications Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09)</a>
component	1..1	SHALL		<a href="#">1198-30597</a>	
section	1..1	SHALL		<a href="#">1198-30598</a>	<a href="#">Physical Exam Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30599</a>	
section	1..1	SHALL		<a href="#">1198-30600</a>	<a href="#">Problem Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30601</a>	
section	1..1	SHALL		<a href="#">1198-30602</a>	<a href="#">Procedures Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30603</a>	
section	1..1	SHALL		<a href="#">1198-30604</a>	<a href="#">Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12)</a>
component	1..1	SHALL		<a href="#">1198-30605</a>	
section	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Results Section (entries optional)</a>

				<a href="#">30606</a>	<a href="#">(V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.3:2015-08-01)</a>
component	1..1	SHALL		<a href="#">1198- 30607</a>	
section	1..1	SHALL		<a href="#">1198- 30608</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3. 1.3.18)</a>
component	1..1	SHALL		<a href="#">1198- 30609</a>	
section	1..1	SHALL		<a href="#">1198- 30610</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.17:2015-08-01)</a>
component	1..1	SHALL		<a href="#">1198- 30611</a>	
section	1..1	SHALL		<a href="#">1198- 30612</a>	<a href="#">Vital Signs Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.4:2015-08-01)</a>

## 2.1.12 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier:  
[urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8283) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.3" (CONF:1198-10046).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32518).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32939).

The H&P Note recommends use of a single document type code, 34117-2

3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17185).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [HPDocumentType](#) urn:oid:2.16.840.1.113883.1.11.20.22 **DYNAMIC** (CONF:1198-17186).
4. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:1198-32482).
  - a. The informationRecipient, if present, **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-32483).

### 2.1.12.1 participant

The participant element in the H&P header follows the General Header Constraints for participants. H&P Note does not specify any use for functionCode for participants. Local policies will determine how this element should be used in implementations.

5. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-8286).

A special class of participant is the supporting person or organization: an individual or an organization that has a relationship to the patient, including parents, relatives, caregivers, insurance policyholders, and guarantors. In the case of a supporting person who is also an emergency contact or next-of-kin, a participant element should be present for each role recorded.

- a. When participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet 2.16.840.1.113883.11.20.9.33 INDRoleclassCodes **STATIC** 2011-09-30 (CONF:1198-8333).

### 2.1.12.2 inFulfillmentOf

inFulfillmentOf elements describe the prior orders that are fulfilled (in whole or part) by the service events described in this document. For example, the prior order might be a referral and the H&P Note may be in partial fulfillment of that referral.

6. **MAY** contain zero or more [0..\*] **inFulfillmentof** (CONF:1198-8336).

### 2.1.12.3 componentOf

The H&P Note is always associated with an encounter.

7. **SHALL** contain exactly one [1..1] **componentOf** (CONF:1198-8338).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-8339).
    - i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-8340).

The effectiveTime represents the time interval or point in time in which the encounter took place.

- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DT.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-8341).

The responsibleParty element records only the party responsible for the encounter, not necessarily the entire episode of care.

- iii. This encompassingEncounter **MAY** contain zero or one [0..1] **responsibleParty** (CONF:1198-8345).
  1. The responsibleParty element, if present, **SHALL** contain an assignedEntity element, which **SHALL** contain an assignedPerson element, a representedOrganization element, or both (CONF:1198-8348).

The encounterParticipant elements represent only those participants in the encounter, not necessarily the entire episode of care.

- iv. This encompassingEncounter **MAY** contain zero or more [0..\*] **encounterParticipant** (CONF:1198-8342).
  - 1. An encounterParticipant element, if present, **SHALL** contain an assignedEntity element, which **SHALL** contain an assignedPerson element, a representedOrganization element, or both (CONF:1198-8343).
- v. This encompassingEncounter **MAY** contain zero or one [0..1] **location** (CONF:1198-8344).

#### 2.1.12.4 component

- 8. **SHALL** contain exactly one [1..1] **component** (CONF:1198-8349).

In this template (templateId 2.16.840.1.113883.10.20.22.1.3.2), coded entries are optional.

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30570).
  - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30571) such that it
    - 1. **SHALL** contain exactly one [1..1] Allergies and Intolerances Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01) (CONF:1198-30572).
  - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30573) such that it
    - 1. **SHALL** contain exactly one [1..1] Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8) (CONF:1198-30574).
  - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30575) such that it
    - 1. **SHALL** contain exactly one [1..1] Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30576).
  - iv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30577) such that it
    - 1. **SHALL** contain exactly one [1..1] Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09) (CONF:1198-30578).
  - v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30579) such that it
    - 1. **SHALL** contain exactly one [1..1] Chief Complaint Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) (CONF:1198-30580).

- vi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30581) such that it
  - 1. **SHALL** contain exactly one [1..1] [Chief Complaint and Reason for Visit Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.13) (CONF:1198-30582).
- vii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30583) such that it
  - 1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01) (CONF:1198-30584).
- viii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30585) such that it
  - 1. **SHALL** contain exactly one [1..1] [General Status Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.2.5) (CONF:1198-30586).
- ix. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30587) such that it
  - 1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01) (CONF:1198-30588).
- x. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30589) such that it
  - 1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-30590).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30591) such that it
  - 1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01) (CONF:1198-30592).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30593) such that it
  - 1. **SHALL** contain exactly one [1..1] [Instructions Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09) (CONF:1198-31385).
- xiii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30595) such that it
  - 1. **SHALL** contain exactly one [1..1] [Medications Section \(entries optional\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09) (CONF:1198-30596).

xiv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30597) such that it

1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)  
(CONF:1198-30598).

xv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30599) such that it

1. **SHALL** contain exactly one [1..1] [Problem Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01)  
(CONF:1198-30600).

xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30601) such that it

1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries optional\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)  
(CONF:1198-30602).

xvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30603) such that it

1. **SHALL** contain exactly one [1..1] [Reason for Visit Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12)  
(CONF:1198-30604).

xviii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30605) such that it

1. **SHALL** contain exactly one [1..1] [Results Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01)  
(CONF:1198-30606).

xix. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30607) such that it

1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)  
(CONF:1198-30608).

xx. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30609) such that it

1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
(CONF:1198-30610).

xxi. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30611) such that it

1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01)  
(CONF:1198-30612).

- xxii. This structuredBody **SHALL** contain a Chief Complaint and Reason for Visit Section (2.16.840.1.113883.10.20.22.2.13) or a Chief Complaint Section (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or a Reason for Visit Section (2.16.840.1.113883.10.20.22.2.12) (CONF:1198-30613).
- xxiii. This structuredBody **SHALL** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09), or an Assessment Section (2.16.840.1.113883.10.20.22.2.8) and a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30614).
- xxiv. This structuredBody **SHALL NOT** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present (CONF:1198-30615).
- xxv. This structuredBody **SHALL NOT** contain a Chief Complaint and Reason for Visit Section (2.16.840.1.113883.10.20.22.2.13) when either a Chief Complaint Section (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or a Reason for Visit Section (2.16.840.1.113883.10.20.22.2.12) is present (CONF:1198-30616).

**Table 41: HPDocumentType**

Value Set: HPDocumentType urn:oid:2.16.840.1.113883.1.11.20.22 Specific URL Pending Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
Code	Code System	Code System OID	Print Name
34117-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	History and physical note
11492-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Provider-unspecified, History and physical note
28626-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician History and physical note
34774-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Surgery History and physical note
34115-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Medical student Hospital History and physical note
34116-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician Nursing facility History and physical note
34095-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Comprehensive history and physical note
34096-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Nursing facility Comprehensive history and physical note
51849-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Admission history and physical note
47039-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Hospital Admission history and physical note
...			

**Figure 30: H&P encompassing Encounter Example**

```
<componentOf>
  <encompassingEncounter>
    <id extension="9937012" root="2.16.840.1.113883.19" />
    <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"
          code="99213" displayName="Evaluation and Management" />
    <effectiveTime>
      <low value="20090227130000+0500" />
      <high value="20090227130000+0500" />
    </effectiveTime>
    <location>
      <healthCareFacility>
        <id root="2.16.540.1.113883.19.2" />
      </healthCareFacility>
    </location>
  </encompassingEncounter>
</componentOf>
```

### 2.1.13 Operative Note (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.7:2015-08-01 (open) ]

**Table 42: Operative Note (V3) Contexts**

Contained By:	Contains:
	<a href="#">Operative Note Fluids Section</a> (optional) <a href="#">Operative Note Surgical Procedure Section</a> (optional) <a href="#">Surgical Drains Section</a> (optional) <a href="#">Procedure Description Section</a> (required) <a href="#">Procedure Disposition Section</a> (optional) <a href="#">Procedure Estimated Blood Loss Section</a> (required) <a href="#">Procedure Specimens Taken Section</a> (required) <a href="#">Postoperative Diagnosis Section</a> (required) <a href="#">Procedure Implants Section</a> (optional) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Anesthesia Section (V2)</a> (required) <a href="#">Procedure Indications Section (V2)</a> (optional) <a href="#">Planned Procedure Section (V2)</a> (optional) <a href="#">US Realm Date and Time (DT.US.FIELDDED)</a> (required) <a href="#">Complications Section (V3)</a> (required) <a href="#">Procedure Findings Section (V3)</a> (required) <a href="#">Preoperative Diagnosis Section (V3)</a> (required)

The Operative Note is a frequently used type of procedure note with specific requirements set forth by regulatory agencies.

The Operative Note is created immediately following a surgical or other high-risk procedure. It records the pre- and post-surgical diagnosis, pertinent events of the procedure, as well as the

condition of the patient following the procedure. The report should be sufficiently detailed to support the diagnoses, justify the treatment, document the course of the procedure, and provide continuity of care.

**Table 43: Operative Note (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.7:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8483</a>	
@root	1..1	SHALL		<a href="#">1198-10048</a>	2.16.840.1.113883.10.20.22.1.7
@extension	1..1	SHALL		<a href="#">1198-32519</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17187</a>	
@code	1..1	SHALL		<a href="#">1198-17188</a>	urn:oid:2.16.840.1.113883.11.2 0.1.1 (SurgicalOperationNoteDocumentTypeCode)
documentationOf	1..*	SHALL		<a href="#">1198-8486</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-8493</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-8494</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.02.5.3</a>
performer	1..1	SHALL		<a href="#">1198-8489</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8495</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PPRF
assignedEntity	1..1	SHALL		<a href="#">1198-10917</a>	
code	0..1	SHOULD		<a href="#">1198-8490</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
performer	0..*	MAY		<a href="#">1198-32736</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32738</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SPRF
assignedEntity	1..1	SHALL		<a href="#">1198-32737</a>	
code	0..1	SHOULD		<a href="#">1198-32739</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
authorization	0..1	MAY		<a href="#">1198-32404</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32408</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = AUTH
consent	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">32405</a>	
@classCode	1..1	SHALL		<a href="#">1198-32409</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CONS
@moodCode	1..1	SHALL		<a href="#">1198-32410</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
statusCode	1..1	SHALL		<a href="#">1198-32411</a>	
component	1..1	SHALL		<a href="#">1198-9585</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30485</a>	
component	1..1	SHALL		<a href="#">1198-30486</a>	
section	1..1	SHALL		<a href="#">1198-30487</a>	<a href="#">Anesthesia Section (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09</a>
component	1..1	SHALL		<a href="#">1198-30488</a>	
section	1..1	SHALL		<a href="#">1198-30489</a>	<a href="#">Complications Section (V3)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.37:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-30490</a>	
section	1..1	SHALL		<a href="#">1198-30491</a>	<a href="#">Preoperative Diagnosis Section (V3)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.34:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-30492</a>	
section	1..1	SHALL		<a href="#">1198-30493</a>	<a href="#">Procedure Estimated Blood Loss Section</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.0.18.2.9</a>
component	1..1	SHALL		<a href="#">1198-30494</a>	
section	1..1	SHALL		<a href="#">1198-30495</a>	<a href="#">Procedure Findings Section (V3)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-30496</a>	
section	1..1	SHALL		<a href="#">1198-30497</a>	<a href="#">Procedure Specimens Taken Section</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.0.22.2.31</a>
component	1..1	SHALL		<a href="#">1198-30498</a>	

section	1..1	SHALL		<a href="#">1198-30499</a>	<a href="#">Procedure Description Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.27</a>
component	1..1	SHALL		<a href="#">1198-30500</a>	
section	1..1	SHALL		<a href="#">1198-30501</a>	<a href="#">Postoperative Diagnosis Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.35</a>
component	0..1	MAY		<a href="#">1198-30502</a>	
section	1..1	SHALL		<a href="#">1198-30503</a>	<a href="#">Procedure Implants Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.2.40</a>
component	0..1	MAY		<a href="#">1198-30504</a>	
section	1..1	SHALL		<a href="#">1198-30505</a>	<a href="#">Operative Note Fluids Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.7.12</a>
component	0..1	MAY		<a href="#">1198-30506</a>	
section	1..1	SHALL		<a href="#">1198-30507</a>	<a href="#">Operative Note Surgical Procedure Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.7.14</a>
component	0..1	MAY		<a href="#">1198-30508</a>	
section	1..1	SHALL		<a href="#">1198-30509</a>	<a href="#">Plan of Treatment Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.10:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-30510</a>	
section	1..1	SHALL		<a href="#">1198-30511</a>	<a href="#">Planned Procedure Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.30:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-30512</a>	
section	1..1	SHALL		<a href="#">1198-30513</a>	<a href="#">Procedure Disposition Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.18.2.12</a>
component	0..1	MAY		<a href="#">1198-30514</a>	
section	1..1	SHALL		<a href="#">1198-30515</a>	<a href="#">Procedure Indications Section</a> <a href="#">(V2) (identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-30516</a>
section	1..1	SHALL		<a href="#">1198-30517</a> <a href="#">Surgical Drains Section (identifier: urn:oid:2.16.840.1.113883.10.20.7.13)</a>

## 2.1.14 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: [urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8483) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.7" (CONF:1198-10048).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32519).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32940).

The Operative Note recommends use of a single document type code, 11504-8 "Provider-unspecified Operation Note", with further specification provided by author or performer, setting, or specialty data in the CDA header. Some of the LOINC codes in the Surgical Operation Note Document Type Code table are pre-coordinated with the practice setting or the training or professional level of the author. Use of pre-coordinated codes is not recommended because of potential conflict with other information in the header. When these codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC document type.

3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17187).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [SurgicalOperationNoteDocumentTypeCode](#) [urn:oid:2.16.840.1.113883.11.20.1.1 DYNAMIC](#) (CONF:1198-17188).

### 2.1.14.1 documentationOf

A serviceEvent represents the main act, such as a colonoscopy or an appendectomy, being documented. A serviceEvent can further specialize the act inherent in the ClinicalDocument/code, such as where the ClinicalDocument/code is simply "Surgical Operation Note" and the procedure is "Appendectomy." serviceEvent is required in the Operative Note and it must be equivalent to or further specialize the value inherent in the ClinicalDocument/code; it shall not conflict with the value inherent in the ClinicalDocument/code, as such a conflict would create ambiguity. serviceEvent/effectiveTime can be used to indicate the time the actual event (as opposed to the encounter surrounding the event) took place. If the date and the duration of the procedure is known, serviceEvent/effectiveTime/low is used with a width element that describes the duration; no

high element is used. However, if only the date is known, the date is placed in both the low and high elements.

4. **SHALL** contain at least one [1..\*] **documentationOf** (CONF:1198-8486).
  - a. Such documentationOfs **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-8493).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DT.US.FIELDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-8494).
      1. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:1198-8488).
      2. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high (CONF:1198-10058).
      3. When only the date and the length of the procedure are known a width element **SHALL** be present and the serviceEvent/effectiveTime/high **SHALL NOT** be present (CONF:1198-10060).

#### 2.1.14.2 performer

This performer represents a clinicians who actually and principally carry out the serviceEvent. Typically, these are clinicians who have surgical privileges in their institutions such as Surgeons, Obstetrician/Gynecologists, and Family Practice Physicians. The performer may also be non-physician providers (NPPs) who have surgical privileges. There may be more than one primary performer in the case of complicated surgeries. There are occasionally co-surgeons. Usually they will be billing separately and will each dictate their own notes. An example may be spinal surgery , where a general surgeon and an orthopedic surgeon both are present and billing off the same Current Procedural Terminology (CPT) codes. Typically two Operative Notes are generated; however, each will list the other as a co-surgeon. Any assistants are identified as a secondary performer (SPRF) in a second performer participant.

- ii. This serviceEvent **SHALL** contain exactly one [1..1] **performer** (CONF:1198-8489) such that it
  1. **SHALL** contain exactly one [1..1] @typeCode="PPRF" Primary performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8495).
  2. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-10917).
    - a. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-8490).

#### 2.1.14.3 performer

This performer represents any assistants.

- iii. This serviceEvent **MAY** contain zero or more [0..\*] **performer** (CONF:1198-32736) such that it
  - 1. **SHALL** contain exactly one [1..1] @typeCode="SPRF" Secondary performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-32738).
  - 2. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32737).
    - a. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#)  
urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32739).
- iv. The value of serviceEvent/code **SHALL** be from ICD9 CM Procedures (CodeSystem 2.16.840.1.113883.6.104), CPT-4 (CodeSystem 2.16.840.1.113883.6.12), or values descending from 71388002 (Procedure) from the SNOMED CT (CodeSystem 2.16.840.1.113883.6.96) ValueSet Procedure 2.16.840.1.113883.3.88.12.80.28 **DYNAMIC** (CONF:1198-8487).

Authorization represents consent. Consent, if present, shall be represented by authorization/consent.

- 5. **MAY** contain zero or one [0..1] **authorization** (CONF:1198-32404).
  - a. The authorization, if present, **SHALL** contain exactly one [1..1] @typeCode="AUTH" authorized by (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32408).
  - b. The authorization, if present, **SHALL** contain exactly one [1..1] **consent** (CONF:1198-32405).
    - i. This consent **SHALL** contain exactly one [1..1] @classCode="CONS" consent (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32409).
    - ii. This consent **SHALL** contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1198-32410).
    - iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-32411).

#### 2.1.14.4 component

- 6. **SHALL** contain exactly one [1..1] **component** (CONF:1198-9585).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30485).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30486) such that it
      - 1. **SHALL** contain exactly one [1..1] [Anesthesia Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09) (CONF:1198-30487).

- ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30488) such that it
  - 1. **SHALL** contain exactly one [1..1] [Complications Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.37:2015-08-01) (CONF:1198-30489).
- iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30490) such that it
  - 1. **SHALL** contain exactly one [1..1] [Preoperative Diagnosis Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.34:2015-08-01) (CONF:1198-30491).
- iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30492) such that it
  - 1. **SHALL** contain exactly one [1..1] [Procedure Estimated Blood Loss Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.18.2.9) (CONF:1198-30493).
- v. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30494) such that it
  - 1. **SHALL** contain exactly one [1..1] [Procedure Findings Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01) (CONF:1198-30495).
- vi. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30496) such that it
  - 1. **SHALL** contain exactly one [1..1] [Procedure Specimens Taken Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.31) (CONF:1198-30497).
- vii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30498) such that it
  - 1. **SHALL** contain exactly one [1..1] [Procedure Description Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.27) (CONF:1198-30499).
- viii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30500) such that it
  - 1. **SHALL** contain exactly one [1..1] [Postoperative Diagnosis Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.35) (CONF:1198-30501).
- ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30502) such that it
  - 1. **SHALL** contain exactly one [1..1] [Procedure Implants Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.40) (CONF:1198-30503).

- x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30504) such that it
    1. **SHALL** contain exactly one [1..1] [Operative Note Fluids Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.7.12) (CONF:1198-30505).
  - xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30506) such that it
    1. **SHALL** contain exactly one [1..1] [Operative Note Surgical Procedure Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.7.14) (CONF:1198-30507).
  - xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30508) such that it
    1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30509).
  - xiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30510) such that it
    1. **SHALL** contain exactly one [1..1] [Planned Procedure Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.30:2014-06-09) (CONF:1198-30511).
  - xiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30512) such that it
    1. **SHALL** contain exactly one [1..1] [Procedure Disposition Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.18.2.12) (CONF:1198-30513).
  - xv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30514) such that it
    1. **SHALL** contain exactly one [1..1] [Procedure Indications Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09) (CONF:1198-30515).
  - xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30516) such that it
    1. **SHALL** contain exactly one [1..1] [Surgical Drains Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.7.13) (CONF:1198-30517).

**Table 44: SurgicalOperationNoteDocumentTypeCode**

Value Set: SurgicalOperationNoteDocumentTypeCode urn:oid:2.16.840.1.113883.11.20.1.1 Specific URL Pending Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
11504-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Provider-unspecified Operation note
34137-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Outpatient Surgical operation note
28583-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentist Operation note
28624-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Podiatry Operation note
28573-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician, Operation note
34877-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Urology Surgical operation note
34874-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Surgery Surgical operation note
34870-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Plastic surgery Surgical operation note
34868-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Orthopaedic surgery Surgical operation note
34818-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Otolaryngology Surgical operation note

**Figure 31: Operative Note performer Example**

```
<performer typeCode="PPRF">
  <assignedEntity>
    <id extension="1" root="2.16.840.1.113883.19" />
    <code code="2086S0120X" codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC"
displayName="Pediatric Surgeon" />
    <addr>
      <streetAddressLine>1013 Healthcare Drive</streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>99999</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel:(555) 555-1013" />
    <assignedPerson>
      <name>
        <prefix>Dr.</prefix>
        <given>Carl</given>
        <family>Cutter</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</performer>
```

**Figure 32: Operative Note serviceEvent Example**

```
<serviceEvent classCode="PROC">
  <code code="801460020" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Laparoscopic Appendectomy" />
  <effectiveTime>
    <low value="201003292240" />
    <width value="15" unit="m" />
  </effectiveTime>
  ...
</serviceEvent>
```

## 2.1.15 Procedure Note (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.6:2015-08-01 (open)]

**Table 45: Procedure Note (V3) Contexts**

Contained By:	Contains:
	<a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (optional) <a href="#">Chief Complaint Section</a> (optional) <a href="#">Reason for Visit Section</a> (optional) <a href="#">Chief Complaint and Reason for Visit Section</a>

Contained By:	Contains:
	<p>(optional)</p> <p><a href="#">History of Present Illness Section</a> (optional)</p> <p><a href="#">Procedure Description Section</a> (required)</p> <p><a href="#">Procedure Disposition Section</a> (optional)</p> <p><a href="#">Procedure Estimated Blood Loss Section</a> (optional)</p> <p><a href="#">Procedure Specimens Taken Section</a> (optional)</p> <p><a href="#">Medical (General) History Section</a> (optional)</p> <p><a href="#">Procedure Implants Section</a> (optional)</p> <p><a href="#">Medications Section (entries optional) (V2)</a> (optional)</p> <p><a href="#">Plan of Treatment Section (V2)</a> (optional)</p> <p><a href="#">Medications Administered Section (V2)</a> (optional)</p> <p><a href="#">Anesthesia Section (V2)</a> (optional)</p> <p><a href="#">Procedures Section (entries optional) (V2)</a> (optional)</p> <p><a href="#">Procedure Indications Section (V2)</a> (required)</p> <p><a href="#">Assessment and Plan Section (V2)</a> (optional)</p> <p><a href="#">Planned Procedure Section (V2)</a> (optional)</p> <p><a href="#">US Realm Date and Time (DT.US.FIELDDED)</a> (required)</p> <p><a href="#">Complications Section (V3)</a> (required)</p> <p><a href="#">History of Past Illness Section (V3)</a> (optional)</p> <p><a href="#">Procedure Findings Section (V3)</a> (optional)</p> <p><a href="#">Postprocedure Diagnosis Section (V3)</a> (required)</p> <p><a href="#">Physical Exam Section (V3)</a> (optional)</p> <p><a href="#">Social History Section (V3)</a> (optional)</p> <p><a href="#">Family History Section (V3)</a> (optional)</p> <p><a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> (optional)</p>

A Procedure Note encompasses many types of non-operative procedures including interventional cardiology, gastrointestinal endoscopy, osteopathic manipulation, and many other specialty fields. Procedure Notes are differentiated from Operative Notes because they do not involve incision or excision as the primary act.

The Procedure Note is created immediately following a non-operative procedure. It records the indications for the procedure and, when applicable, postprocedure diagnosis, pertinent events of the procedure, and the patient's tolerance for the procedure. It should be detailed enough to justify the procedure, describe the course of the procedure, and provide continuity of care.

**Table 46: Procedure Note (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.6:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8496</a>	
@root	1..1	SHALL		<a href="#">1198-10050</a>	2.16.840.1.113883.10.20.22.1.6
@extension	1..1	SHALL		<a href="#">1198-32520</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17182</a>	
@code	1..1	SHALL		<a href="#">1198-17183</a>	urn:oid:2.16.840.1.113883.11.2 0.6.1 (ProcedureNoteDocumentTypeCodes)
participant	0..*	MAY		<a href="#">1198-8504</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8505</a>	urn:oid:2.16.840.1.113883.5.88 (HL7ParticipationFunction) = IND
functionCode	1..1	SHALL		<a href="#">1198-8506</a>	urn:oid:2.16.840.1.113883.5.88 (HL7ParticipationFunction) = PCP
associatedEntity/@classCode	1..1	SHALL		<a href="#">1198-8507</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PROV
associatedPerson	1..1	SHALL		<a href="#">1198-8508</a>	
documentationOf	1..*	SHALL		<a href="#">1198-8510</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-10061</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-10062</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.3</a>
low	1..1	SHALL		<a href="#">1198-26449</a>	
performer	1..1	SHALL		<a href="#">1198-8520</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8521</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PPRF
assignedEntity	1..1	SHALL		<a href="#">1198-14911</a>	
code	0..1	SHOULD		<a href="#">1198-14912</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
performer	0..*	MAY		<a href="#">1198-</a>	

				<a href="#">32732</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32734</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SPRF
assignedEntity	1..1	SHALL		<a href="#">1198-32733</a>	
code	0..1	SHOULD		<a href="#">1198-32735</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
authorization	0..1	MAY		<a href="#">1198-32412</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32413</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = AUTH
consent	1..1	SHALL		<a href="#">1198-32414</a>	
@classCode	1..1	SHALL		<a href="#">1198-32415</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CONS
@moodCode	1..1	SHALL		<a href="#">1198-32416</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
statusCode	1..1	SHALL		<a href="#">1198-32417</a>	
componentOf	0..1	SHOULD		<a href="#">1198-30871</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-30872</a>	
id	0..*	SHOULD		<a href="#">1198-32395</a>	
code	1..1	SHALL		<a href="#">1198-30873</a>	
encounterParticipant	0..1	MAY		<a href="#">1198-30874</a>	
@typeCode	1..1	SHALL		<a href="#">1198-30875</a>	REF
location	1..*	SHALL		<a href="#">1198-30876</a>	
healthCareFacility	1..1	SHALL		<a href="#">1198-30877</a>	
id	1..*	SHALL		<a href="#">1198-30878</a>	
component	1..1	SHALL		<a href="#">1198-9588</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30352</a>	
component	1..1	SHALL		<a href="#">1198-30353</a>	
section	1..1	SHALL		<a href="#">1198-30387</a>	<a href="#">Complications Section (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a>

					<a href="#">20.22.2.37:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-30355</a>	
section	1..1	SHALL		<a href="#">1198-30356</a>	<a href="#">Procedure Description Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.27)</a>
component	1..1	SHALL		<a href="#">1198-30357</a>	
section	1..1	SHALL		<a href="#">1198-30358</a>	<a href="#">Procedure Indications Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09)</a>
component	1..1	SHALL		<a href="#">1198-30359</a>	
section	1..1	SHALL		<a href="#">1198-30360</a>	<a href="#">Postprocedure Diagnosis Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.36:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30361</a>	
section	1..1	SHALL		<a href="#">1198-30362</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8)</a>
component	0..1	MAY		<a href="#">1198-30363</a>	
section	1..1	SHALL		<a href="#">1198-30364</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30365</a>	
section	1..1	SHALL		<a href="#">1198-30366</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30367</a>	
section	1..1	SHALL		<a href="#">1198-30368</a>	<a href="#">Allergies and Intolerances Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30369</a>	
section	1..1	SHALL		<a href="#">1198-30370</a>	<a href="#">Anesthesia Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-</a>	

				<a href="#">30371</a>	
section	1..1	SHALL		<a href="#">1198-30372</a>	<a href="#">Chief Complaint Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)</a>
component	0..1	MAY		<a href="#">1198-30373</a>	
section	1..1	SHALL		<a href="#">1198-30374</a>	<a href="#">Chief Complaint and Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.13)</a>
component	0..1	MAY		<a href="#">1198-30375</a>	
section	1..1	SHALL		<a href="#">1198-30376</a>	<a href="#">Family History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30377</a>	
section	1..1	SHALL		<a href="#">1198-30378</a>	<a href="#">History of Past Illness Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30379</a>	
section	1..1	SHALL		<a href="#">1198-30380</a>	<a href="#">History of Present Illness Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4)</a>
component	0..1	MAY		<a href="#">1198-30381</a>	
section	1..1	SHALL		<a href="#">1198-30382</a>	<a href="#">Medical (General) History Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.39)</a>
component	0..1	MAY		<a href="#">1198-30383</a>	
section	1..1	SHALL		<a href="#">1198-30384</a>	<a href="#">Medications Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30388</a>	
section	1..1	SHALL		<a href="#">1198-30389</a>	<a href="#">Medications Administered Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30390</a>	
section	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Physical Exam Section (V3)</a>

				<a href="#">30391</a>	<a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.2.10:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198- 30392</a>	
section	1..1	SHALL		<a href="#">1198- 30393</a>	<a href="#">Planned Procedure Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.30:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198- 30394</a>	
section	1..1	SHALL		<a href="#">1198- 30395</a>	<a href="#">Procedure Disposition Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.18.2.12)</a>
component	0..1	MAY		<a href="#">1198- 30396</a>	
section	1..1	SHALL		<a href="#">1198- 30397</a>	<a href="#">Procedure Estimated Blood Loss Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.18.2.9)</a>
component	0..1	MAY		<a href="#">1198- 30398</a>	
section	1..1	SHALL		<a href="#">1198- 30399</a>	<a href="#">Procedure Findings Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.28:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198- 30400</a>	
section	1..1	SHALL		<a href="#">1198- 30401</a>	<a href="#">Procedure Implants Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.40)</a>
component	0..1	MAY		<a href="#">1198- 30402</a>	
section	1..1	SHALL		<a href="#">1198- 30403</a>	<a href="#">Procedure Specimens Taken Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.31)</a>
component	0..1	MAY		<a href="#">1198- 30404</a>	
section	1..1	SHALL		<a href="#">1198- 30405</a>	<a href="#">Procedures Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.7:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198- 30406</a>	
section	1..1	SHALL		<a href="#">1198- 30407</a>	<a href="#">Reason for Visit Section (identifier: urn:oid:2.16.840.1.113883.10.2)</a>

				<a href="#">0.22.2.12</a>
component	0..1	MAY	<a href="#">1198-30408</a>	
section	1..1	SHALL	<a href="#">1198-30409</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)</a>
component	0..1	MAY	<a href="#">1198-30410</a>	
section	1..1	SHALL	<a href="#">1198-30411</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.17:2015-08-01)</a>

## 2.1.16 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8496) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.6" (CONF:1198-10050).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32520).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32941).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17182).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProcedureNoteDocumentTypeCodes](#) urn:oid:2.16.840.1.113883.11.20.6.1 **DYNAMIC** (CONF:1198-17183).

### 2.1.16.1 participant

The participant element in the Procedure Note header follows the General Header Constraints for participants.

4. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-8504) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="IND" Individual (CodeSystem: HL7ParticipationFunction urn:oid:2.16.840.1.113883.5.88 **STATIC**) (CONF:1198-8505).
  - b. **SHALL** contain exactly one [1..1] **functionCode**="PCP" Primary Care Physician (CodeSystem: HL7ParticipationFunction urn:oid:2.16.840.1.113883.5.88 **STATIC**) (CONF:1198-8506).

- c. **SHALL** contain exactly one [1..1] **associatedEntity/@classCode="PROV"** Provider (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8507).
  - i. This associatedEntity/@classCode **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-8508).

### 2.1.16.2 documentationOf

A serviceEvent is required in the Procedure Note to represent the main act, such as a colonoscopy or a cardiac stress study, being documented. It must be equivalent to or further specialize the value inherent in the ClinicalDocument/@code (such as where the ClinicalDocument/@code is simply "Procedure Note" and the procedure is "colonoscopy"), and it shall not conflict with the value inherent in the ClinicalDocument/@code, as such a conflict would create ambiguity. A serviceEvent/effectiveTime element indicates the time the actual event (as opposed to the encounter surrounding the event) took place.

serviceEvent/effectiveTime may be represented two different ways in the Procedure Note. For accuracy to the second, the best method is effectiveTime/low together with effectiveTime/high. If a more general time, such as minutes or hours, is acceptable OR if the duration is unknown, an effectiveTime/low with a width element may be used. If the duration is unknown, the appropriate HL7 null value such as "NI" or "NA" must be used for the width element.

- 5. **SHALL** contain at least one [1..\*] **documentationOf** (CONF:1198-8510) such that it
  - a. **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-10061).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DT.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-10062).
      - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-26449).
      - 2. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:1198-8513).
      - 3. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high (CONF:1198-8514).
      - 4. When only the date and the length of the procedure are known a width element **SHALL** be present and the serviceEvent/effectiveTime/high **SHALL NOT** be present (CONF:1198-8515).

### 2.1.16.3 performer

This performer participant represents clinicians who actually and principally carry out the serviceEvent. Typically, these are clinicians who have the appropriate privileges in their institutions such as gastroenterologists, interventional radiologists, and family practice physicians. Performers may also be non-physician providers (NPPs) who have other significant roles in the procedure such as a radiology technician, dental assistant, or nurse. Any assistants are identified as a secondary performer (SPRF) in a second performer participant.

- ii. This serviceEvent **SHALL** contain exactly one [1..1] **performer** (CONF:1198-8520) such that it

1. **SHALL** contain exactly one [1..1] @typeCode="PPRF" Primary Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8521).
2. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-14911).
  - a. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-14912).

#### 2.1.16.4 performer

This performer identifies any assistants.

- iii. This serviceEvent **MAY** contain zero or more [0..\*] **performer** (CONF:1198-32732) such that it
  1. **SHALL** contain exactly one [1..1] @typeCode="SPRF" Secondary Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-32734).
  2. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-32733).
    - a. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32735).
- iv. The value of Clinical Document /documentationOf/serviceEvent/code **SHALL** be from ICD9 CM Procedures (codeSystem 2.16.840.1.113883.6.104), CPT-4 (codeSystem 2.16.840.1.113883.6.12), or values descending from 71388002 (Procedure) from the SNOMED CT (codeSystem 2.16.840.1.113883.6.96) ValueSet 2.16.840.1.113883.3.88.12.80.28 Procedure **DYNAMIC** (CONF:1198-8511).

Authorization represents consent. Consent, if present, shall be represented by authorization/consent.

6. **MAY** contain zero or one [0..1] **authorization** (CONF:1198-32412).
  - a. The authorization, if present, **SHALL** contain exactly one [1..1] @typeCode="AUTH" authorized by (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32413).
  - b. The authorization, if present, **SHALL** contain exactly one [1..1] **consent** (CONF:1198-32414).
    - i. This consent **SHALL** contain exactly one [1..1] @classCode="CONS" consent (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32415).

- ii. This consent **SHALL** contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1198-32416).
- iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-32417).

#### 2.1.16.5 componentOf

- 7. **SHOULD** contain zero or one [0..1] **componentOf** (CONF:1198-30871).
  - a. The componentOf, if present, **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-30872).
    - i. This encompassingEncounter **SHOULD** contain zero or more [0..\*] **id** (CONF:1198-32395).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:1198-30873).
    - iii. This encompassingEncounter **MAY** contain zero or one [0..1] **encounterParticipant** (CONF:1198-30874) such that it
      - 1. **SHALL** contain exactly one [1..1] @typeCode="REF" Referrer (CONF:1198-30875).
    - iv. This encompassingEncounter **SHALL** contain at least one [1..\*] **location** (CONF:1198-30876).
      - 1. Such locations **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:1198-30877).
        - a. This healthCareFacility **SHALL** contain at least one [1..\*] **id** (CONF:1198-30878).

#### 2.1.16.6 component

- 8. **SHALL** contain exactly one [1..1] **component** (CONF:1198-9588).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30352).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30353) such that it
      - 1. **SHALL** contain exactly one [1..1] [Complications Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.37:2015-08-01) (CONF:1198-30387).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30355) such that it
      - 1. **SHALL** contain exactly one [1..1] [Procedure Description Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.27) (CONF:1198-30356).
    - iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30357) such that it
      - 1. **SHALL** contain exactly one [1..1] [Procedure Indications Section \(V2\)](#) (identifier:

- urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09)  
(CONF:1198-30358).
- iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30359) such that it
    1. **SHALL** contain exactly one [1..1] [Postprocedure Diagnosis Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.36:2015-08-01)  
(CONF:1198-30360).
  - v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30361) such that it
    1. **SHALL** contain exactly one [1..1] [Assessment Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8)  
(CONF:1198-30362).
  - vi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30363) such that it
    1. **SHALL** contain exactly one [1..1] [Assessment and Plan Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)  
(CONF:1198-30364).
  - vii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30365) such that it
    1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)  
(CONF:1198-30366).
  - viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30367) such that it
    1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01)  
(CONF:1198-30368).
  - ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30369) such that it
    1. **SHALL** contain exactly one [1..1] [Anesthesia Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09)  
(CONF:1198-30370).
  - x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30371) such that it
    1. **SHALL** contain exactly one [1..1] [Chief Complaint Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)  
(CONF:1198-30372).
  - xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30373) such that it
    1. **SHALL** contain exactly one [1..1] [Chief Complaint and Reason for Visit Section](#) (identifier:

- urn:oid:2.16.840.1.113883.10.20.22.2.13) (CONF:1198-30374).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30375) such that it
1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)  
(CONF:1198-30376).
- xiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30377) such that it
1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)  
(CONF:1198-30378).
- xiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30379) such that it
1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier:  
urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-30380).
- xv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30381) such that it
1. **SHALL** contain exactly one [1..1] [Medical \(General\) History Section](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.2.39) (CONF:1198-30382).
- xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30383) such that it
1. **SHALL** contain exactly one [1..1] [Medications Section \(entries optional\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09)  
(CONF:1198-30384).
- xvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30388) such that it
1. **SHALL** contain exactly one [1..1] [Medications Administered Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09)  
(CONF:1198-30389).
- xviii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30390) such that it
1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)  
(CONF:1198-30391).
- xix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30392) such that it

1. **SHALL** contain exactly one [1..1] [Planned Procedure Section \(V2\)](#)  
 (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.30:2014-06-09)  
 (CONF:1198-30393).
- xx. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30394) such that it
  1. **SHALL** contain exactly one [1..1] [Procedure Disposition Section](#)  
 (identifier: urn:oid:2.16.840.1.113883.10.20.18.2.12)  
 (CONF:1198-30395).
- xxi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30396) such that it
  1. **SHALL** contain exactly one [1..1] [Procedure Estimated Blood Loss Section](#) (identifier:  
 urn:oid:2.16.840.1.113883.10.20.18.2.9) (CONF:1198-30397).
- xxii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30398) such that it
  1. **SHALL** contain exactly one [1..1] [Procedure Findings Section \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01)  
 (CONF:1198-30399).
- xxiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30400) such that it
  1. **SHALL** contain exactly one [1..1] [Procedure Implants Section](#)  
 (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.40)  
 (CONF:1198-30401).
- xxiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30402) such that it
  1. **SHALL** contain exactly one [1..1] [Procedure Specimens Taken Section](#) (identifier:  
 urn:oid:2.16.840.1.113883.10.20.22.2.31) (CONF:1198-30403).
- xxv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30404) such that it
  1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries optional\) \(V2\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)  
 (CONF:1198-30405).
- xxvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30406) such that it
  1. **SHALL** contain exactly one [1..1] [Reason for Visit Section](#)  
 (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12)  
 (CONF:1198-30407).
- xxvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30408) such that it

1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#)  
(identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)  
(CONF:1198-30409).

xxviii. This structuredBody **MAY** contain zero or one [0..1] **component**  
(CONF:1198-30410) such that it

1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
(CONF:1198-30411).

xxix. This structuredBody **SHALL** contain an Assessment and Plan Section (V2)  
(2.16.840.1.113883.10.20.22.2.9:2014-06-09), or an Assessment Section  
(2.16.840.1.113883.10.20.22.2.8) and a Plan of Treatment Section (V2)  
(2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30412).

xxx. This structuredBody **SHALL NOT** contain an Assessment and Plan Section  
(V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an  
Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment  
Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present  
(CONF:1198-30414).

xxxi. This structuredBody **SHALL NOT** contain a Chief Complaint and Reason  
for Visit Section (2.16.840.1.113883.10.20.22.2.13) when either a Chief  
Complaint Section (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or a Reason for Visit  
Section (2.16.840.1.113883.10.20.22.2.12) is present (CONF:1198-30415).

**Table 47: ProcedureNoteDocumentTypeCodes**

Value Set: ProcedureNoteDocumentTypeCodes urn:oid:2.16.840.1.113883.11.20.6.1 A value set of LOINC document codes for Procedure Notes.			
Specific URL Pending Value Set Source: <a href="http://search.loinc.org">http://search.loinc.org</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
28570-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Provider-unspecified Procedure note
11505-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician procedure note
18744-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Bronchoscopy study
18745-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Cardiac catheterization study
18746-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Colonoscopy study
18751-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Endoscopy study
18753-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Flexible sigmoidoscopy study
18836-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Cardiac stress study Procedure
28577-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentist procedure note
28625-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Podiatry procedure note
...			

**Figure 33: Procedure Note performer Example**

```
<performer typeCode="PPRF">
  <assignedEntity>
    <id extension="IO00017" root="2.16.840.1.113883.19.5" />
    <code code="207RG0100X" codeSystem="2.16.840.1.113883.6.96" codeSystemName="NUCC"
displayName="Gastroenterologist" />
    <addr>
      <streetAddressLine>1001 Hospital Lane</streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>99999</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel:(999) 555-1212" />
  <assignedPerson>
    <name>
      <prefix>Dr.</prefix>
      <given>Tony</given>
      <family>Tum</family>
    </name>
  </assignedPerson>
</assignedEntity>
</performer>
```

**Figure 34: Procedure Note serviceEvent Example**

```
<documentationOf>
  <serviceEvent classCode="PROC">
    <code code="118155006" codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED CT" displayName="Gastrointestinal tract endoscopy" />
    <effectiveTime>
      <low value="201003292240" />
      <width value="15" unit="m" />
    </effectiveTime>
    ...
  </serviceEvent>
</documentationOf>
```

## 2.1.17 Progress Note (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.9:2015-08-01 (open)]

**Table 48: Progress Note (V3) Contexts**

Contained By:	Contains:
	<a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (optional) <a href="#">Chief Complaint Section</a> (optional) <a href="#">Objective Section</a> (optional) <a href="#">Subjective Section</a> (optional)

Contained By:	Contains:
	<p><a href="#">Medications Section (entries optional) (V2)</a> (optional)</p> <p><a href="#">Plan of Treatment Section (V2)</a> (optional)</p> <p><a href="#">Nutrition Section</a> (optional)</p> <p><a href="#">Assessment and Plan Section (V2)</a> (optional)</p> <p><a href="#">Instructions Section (V2)</a> (optional)</p> <p><a href="#">US Realm Date and Time (DT.US.FIELDDED)</a> (optional)</p> <p><a href="#">US Realm Date and Time (DT.US.FIELDDED)</a> (required)</p> <p><a href="#">Results Section (entries optional) (V3)</a> (optional)</p> <p><a href="#">Vital Signs Section (entries optional) (V3)</a> (optional)</p> <p><a href="#">Problem Section (entries optional) (V3)</a> (optional)</p> <p><a href="#">Physical Exam Section (V3)</a> (optional)</p> <p><a href="#">Interventions Section (V3)</a> (optional)</p> <p><a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> (optional)</p>

This template represents a patient's clinical status during a hospitalization, outpatient visit, treatment with a LTPAC provider, or other healthcare encounter.

Taber's medical dictionary defines a Progress Note as "An ongoing record of a patient's illness and treatment. Physicians, nurses, consultants, and therapists record their notes concerning the progress or lack of progress made by the patient between the time of the previous note and the most recent note."

Mosby's medical dictionary defines a Progress Note as "Notes made by a nurse, physician, social worker, physical therapist, and other health care professionals that describe the patient's condition and the treatment given or planned."

A Progress Note is not a re-evaluation note. A Progress Note is not intended to be a Progress Report for Medicare. Medicare B Section 1833(e) defines the requirements of a Medicare Progress Report.

**Table 49: Progress Note (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.9:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7588</a>	
@root	1..1	SHALL		<a href="#">1198-10052</a>	2.16.840.1.113883.10.20.22.1.9
@extension	1..1	SHALL		<a href="#">1198-32521</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-17189</a>	
@code	1..1	SHALL		<a href="#">1198-17190</a>	urn:oid:2.16.840.1.113883.11.2 0.8.1 (ProgressNoteDocumentTypeCode)
documentationOf	0..1	SHOULD		<a href="#">1198-7603</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-7604</a>	
@classCode	1..1	SHALL		<a href="#">1198-26420</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR
templateId	1..1	SHALL		<a href="#">1198-9480</a>	
@root	1..1	SHALL		<a href="#">1198-10068</a>	2.16.840.1.113883.10.20.21.3.1
effectiveTime	0..1	SHOULD		<a href="#">1198-9481</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.3</a>
componentOf	1..1	SHALL		<a href="#">1198-7595</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-7596</a>	
id	1..*	SHALL		<a href="#">1198-7597</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-7598</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.3</a>
low	1..1	SHALL		<a href="#">1198-7599</a>	
location	1..1	SHALL		<a href="#">1198-30879</a>	
healthCareFacility	1..1	SHALL		<a href="#">1198-30880</a>	
id	1..*	SHALL		<a href="#">1198-30881</a>	

component	1..1	SHALL		<a href="#">1198-9591</a>	
structuredBody	1..1	SHALL		<a href="#">1198-30617</a>	
component	0..1	MAY		<a href="#">1198-30618</a>	
section	1..1	SHALL		<a href="#">1198-30619</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.8)</a>
component	0..1	MAY		<a href="#">1198-30620</a>	
section	1..1	SHALL		<a href="#">1198-30621</a>	<a href="#">Plan of Treatment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30622</a>	
section	1..1	SHALL		<a href="#">1198-30623</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30624</a>	
section	1..1	SHALL		<a href="#">1198-30625</a>	<a href="#">Allergies and Intolerances Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30626</a>	
section	1..1	SHALL		<a href="#">1198-30627</a>	<a href="#">Chief Complaint Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)</a>
component	0..1	MAY		<a href="#">1198-30628</a>	
section	1..1	SHALL		<a href="#">1198-30629</a>	<a href="#">Interventions Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.21.2.3:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-30639</a>	
section	1..1	SHALL		<a href="#">1198-31386</a>	<a href="#">Instructions Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-30641</a>	
section	1..1	SHALL		<a href="#">1198-30642</a>	<a href="#">Medications Section (entries optional) (V2) (identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09</a>
component	0..1	MAY	<a href="#">1198-30643</a>	
section	1..1	SHALL	<a href="#">1198-30644</a>	<a href="#">Objective Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.21.2.1)</a>
component	0..1	MAY	<a href="#">1198-30645</a>	
section	1..1	SHALL	<a href="#">1198-30646</a>	<a href="#">Physical Exam Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)</a>
component	0..1	MAY	<a href="#">1198-30647</a>	
section	1..1	SHALL	<a href="#">1198-30648</a>	<a href="#">Problem Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01)</a>
component	0..1	MAY	<a href="#">1198-30649</a>	
section	1..1	SHALL	<a href="#">1198-30650</a>	<a href="#">Results Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01)</a>
component	0..1	MAY	<a href="#">1198-30651</a>	
section	1..1	SHALL	<a href="#">1198-30652</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)</a>
component	0..1	MAY	<a href="#">1198-30653</a>	
section	1..1	SHALL	<a href="#">1198-30654</a>	<a href="#">Subjective Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.21.2.2)</a>
component	0..1	MAY	<a href="#">1198-30655</a>	
section	1..1	SHALL	<a href="#">1198-30656</a>	<a href="#">Vital Signs Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01)</a>
component	0..1	MAY	<a href="#">1198-32626</a>	
section	1..1	SHALL	<a href="#">1198-32627</a>	<a href="#">Nutrition Section (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.2.57)</a>

## 2.1.18 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7588) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.9" (CONF:1198-10052).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32521).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32942).

The Progress Note recommends use of a single document type code, 11506-3 "Subsequent evaluation note", with further specification provided by author or performer, setting, or specialty. When pre-coordinated codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC document type.

3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-17189).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProgressNoteDocumentTypeCode](#) urn:oid:2.16.840.1.113883.11.20.8.1 **DYNAMIC** (CONF:1198-17190).

### 2.1.18.1 documentationOf

A documentationOf can contain a serviceEvent to further specialize the act inherent in the ClinicalDocument/code. In a Progress Note, a serviceEvent can represent the event of writing the Progress Note. The serviceEvent/effectiveTime is the time period the note documents.

4. **SHOULD** contain zero or one [0..1] **documentationOf** (CONF:1198-7603).
  - a. The documentationOf, if present, **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-7604).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] @classCode="PCPR" Care Provision (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-26420).
    - ii. This serviceEvent **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-9480) such that it
      1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.21.3.1" (CONF:1198-10068).
    - iii. This serviceEvent **SHOULD** contain zero or one [0..1] [US Realm Date and Time \(DT.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-9481).
      1. The serviceEvent/effectiveTime element **SHOULD** be present with effectiveTime/low element (CONF:1198-9482).
      2. If a width element is not present, the serviceEvent **SHALL** include effectiveTime/high (CONF:1198-10066).

## 2.1.18.2 componentOf

The Progress Note is always associated with an encounter by the componentOf/encompassingEncounter element in the header. The effectiveTime element for an encompassingEncounter represents the time or time interval in which the encounter took place. A single encounter may contain multiple Progress Notes; hence the effectiveTime elements for a Progress Note (recorded in serviceEvent) and for an encounter (recorded in encompassingEncounter) represent different time intervals. For outpatient encounters that are a point in time, set effectiveTime/high, effectiveTime/low, and effectiveTime/@value to the same time. All visits take place at a specific location. When available, the location ID is included in the encompassingEncounter/location/healthCareFacility/id element.

5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:1198-7595).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-7596).
    - i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-7597).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DT.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1198-7598).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-7599).
    - iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:1198-30879).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:1198-30880).
        - a. This healthCareFacility **SHALL** contain at least one [1..\*] **id** (CONF:1198-30881).

## 2.1.18.3 component

6. **SHALL** contain exactly one [1..1] **component** (CONF:1198-9591).

In this template (templateId 2.16.840.1.113883.10.20.22.1.9.2), coded entries are optional

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-30617).
  - i. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30618) such that it
    1. **SHALL** contain exactly one [1..1] [Assessment Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8) (CONF:1198-30619).
  - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30620) such that it
    1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30621).

- iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30622) such that it
  - 1. **SHALL** contain exactly one [1..1] [Assessment and Plan Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09) (CONF:1198-30623).
- iv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30624) such that it
  - 1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01) (CONF:1198-30625).
- v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30626) such that it
  - 1. **SHALL** contain exactly one [1..1] [Chief Complaint Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) (CONF:1198-30627).
- vi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30628) such that it
  - 1. **SHALL** contain exactly one [1..1] [Interventions Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.21.2.3:2015-08-01) (CONF:1198-30629).
- vii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30639) such that it
  - 1. **SHALL** contain exactly one [1..1] [Instructions Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09) (CONF:1198-31386).
- viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30641) such that it
  - 1. **SHALL** contain exactly one [1..1] [Medications Section \(entries optional\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09) (CONF:1198-30642).
- ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30643) such that it
  - 1. **SHALL** contain exactly one [1..1] [Objective Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.21.2.1) (CONF:1198-30644).
- x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30645) such that it
  - 1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01) (CONF:1198-30646).

- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30647) such that it
  - 1. **SHALL** contain exactly one [1..1] [Problem Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01) (CONF:1198-30648).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30649) such that it
  - 1. **SHALL** contain exactly one [1..1] [Results Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01) (CONF:1198-30650).
- xiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30651) such that it
  - 1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18) (CONF:1198-30652).
- xiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30653) such that it
  - 1. **SHALL** contain exactly one [1..1] [Subjective Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.21.2.2) (CONF:1198-30654).
- xv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30655) such that it
  - 1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01) (CONF:1198-30656).
- xvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32626) such that it
  - 1. **SHALL** contain exactly one [1..1] [Nutrition Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-32627).
- xvii. This structuredBody **SHALL** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09), or an Assessment Section (2.16.840.1.113883.10.20.22.2.8) and a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-30657).
- xviii. This structuredBody **SHALL NOT** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present (CONF:1198-30658).

**Table 50: ProgressNoteDocumentTypeCode**

Value Set: ProgressNoteDocumentTypeCode urn:oid:2.16.840.1.113883.11.20.8.1 Specific URL Pending Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
11506-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Provider-unspecified Progress note
18733-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician attending Progress note
28569-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physician consulting Progress note
28617-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentistry Progress note
34900-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	General medicine Progress note
34904-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Mental health Progress note
28623-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Nurse Progress note
11507-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Occupational therapy Progress note
11508-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Physical therapy Progress note
11509-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Podiatry Progress note
...			

**Figure 35: Progress Note serviceEvent Example**

```
<documentationOf>
  <serviceEvent classCode="PCPR">
    <templateId root="2.16.840.1.113883.10.20.21.3.1" />
    <effectiveTime>
      <low value="200503291200" />
      <high value="200503291400" />
    </effectiveTime>
    ...
  </serviceEvent>
</documentationOf>
```

**Figure 36: Progress Note encompassing Encounter Example**

```
<componentOf>
  <encompassingEncounter>
    <id extension="9937012" root="2.16.840.1.113883.19" />
    <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4" code="99213"
          displayName="Evaluation and Management" />
    <effectiveTime>
      <low value="20090227130000+0500" />
      <high value="20090227130000+0500" />
    </effectiveTime>
    <location>
      <healthCareFacility>
        <id root="2.16.540.1.113883.19.2" />
      </healthCareFacility>
    </location>
  </encompassingEncounter>
</componentOf>
```

## 2.1.19 Referral Note (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.14:2015-08-01 (open) ]

**Table 51: Referral Note (V2) Contexts**

Contained By:	Contains:
	<a href="#">US Realm Patient Name (PTN.US.FIELDDED)</a> (optional) <a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (optional) <a href="#">History of Present Illness Section</a> (optional) <a href="#">General Status Section</a> (optional) <a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (required) <a href="#">Medications Section (entries required) (V2)</a> (required) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Nutrition Section</a> (optional) <a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Reason for Referral Section (V2)</a> (required) <a href="#">Assessment and Plan Section (V2)</a> (optional) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Immunizations Section (entries required) (V3)</a> (optional) <a href="#">Results Section (entries required) (V3)</a> (optional) <a href="#">History of Past Illness Section (V3)</a> (optional) <a href="#">Vital Signs Section (entries required) (V3)</a> (optional) <a href="#">Problem Section (entries required) (V3)</a> (required) <a href="#">Physical Exam Section (V3)</a> (optional) <a href="#">Social History Section (V3)</a> (optional) <a href="#">Advance Directives Section (entries optional) (V3)</a>

<b>Contained By:</b>	<b>Contains:</b>
	<p>(optional)</p> <p><a href="#">Family History Section (V3)</a> (optional)</p> <p><a href="#">Allergies and Intolerances Section (entries required)</a></p> <p><a href="#">(V3)</a> (required)</p>

A Referral Note communicates pertinent information from a provider who is requesting services of another provider of clinical or non-clinical services. The information in this document includes the reason for the referral and additional information that would augment decision making and care delivery.

Examples of referral situations are when a patient is referred from a family physician to a cardiologist for cardiac evaluation or when patient is sent by a cardiologist to an emergency department for angina or when a patient is referred by a nurse practitioner to an audiologist for hearing screening or when a patient is referred by a hospitalist to social services.

**Table 52: Referral Note (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.14:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-28947</a>	
@root	1..1	SHALL		<a href="#">1198-28948</a>	2.16.840.1.113883.10.20.22.1.14
@extension	1..1	SHALL		<a href="#">1198-32911</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-28949</a>	urn:oid:2.16.840.1.113883.1.11.20.2.3 (ReferralDocumentType)
informationRecipient	1..1	SHALL		<a href="#">1198-31589</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-31590</a>	
addr	0..*	SHOULD		<a href="#">1198-31591</a>	
telecom	0..*	SHOULD		<a href="#">1198-31592</a>	
informationRecipient	1..1	SHALL		<a href="#">1198-31593</a>	
name	1..*	SHALL		<a href="#">1198-31594</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1</a>
participant	0..*	SHOULD		<a href="#">1198-31642</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31924</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND
associatedEntity	1..1	SHALL		<a href="#">1198-31643</a>	
@classCode	1..1	SHALL		<a href="#">1198-31925</a>	urn:oid:2.16.840.1.113883.11.2.0.9.33 (INDRoleclassCodes)
associatedPerson	1..1	SHALL		<a href="#">1198-31644</a>	
name	1..*	SHALL		<a href="#">1198-31645</a>	<a href="#">US Realm Patient Name (PTN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1</a>
participant	0..*	SHOULD		<a href="#">1198-31647</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31648</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CALLBCK
associatedEntity	1..1	SHALL		<a href="#">1198-31649</a>	

@classCode	1..1	SHALL		<a href="#">1198-32419</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = ASSIGNED
id	1..*	SHALL		<a href="#">1198-31650</a>	
addr	0..*	SHOULD		<a href="#">1198-31651</a>	
telecom	1..*	SHALL		<a href="#">1198-31652</a>	
associatedPerson	1..1	SHALL		<a href="#">1198-31653</a>	
name	1..*	SHALL		<a href="#">1198-31654</a>	
scopingOrganization	0..1	MAY		<a href="#">1198-31655</a>	
component	1..1	SHALL		<a href="#">1198-29062</a>	
structuredBody	1..1	SHALL		<a href="#">1198-29063</a>	
component	0..1	SHOULD		<a href="#">1198-29066</a>	
section	1..1	SHALL		<a href="#">1198-29067</a>	<a href="#">Plan of Treatment Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.10:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-29068</a>	
section	1..1	SHALL		<a href="#">1198-29069</a>	<a href="#">Advance Directives Section</a> <a href="#">(entries optional) (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.21:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-29074</a>	
section	1..1	SHALL		<a href="#">1198-29075</a>	<a href="#">History of Present Illness Section</a> <a href="#">(identifier:</a> <a href="#">urn:oid:1.3.6.1.4.1.19376.1.5.3.</a> <a href="#">1.3.4</a>
component	0..1	MAY		<a href="#">1198-29076</a>	
section	1..1	SHALL		<a href="#">1198-29077</a>	<a href="#">Family History Section (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.15:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-29082</a>	
section	1..1	SHALL		<a href="#">1198-29083</a>	<a href="#">Immunizations Section (entries</a> <a href="#">required) (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.2.1:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">29086</a>	
section	1..1	SHALL		<a href="#">1198-29087</a>	<a href="#">Problem Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-29088</a>	
section	1..1	SHALL		<a href="#">1198-29089</a>	<a href="#">Procedures Section (entries optional) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)</a>
component	0..1	SHOULD		<a href="#">1198-29090</a>	
section	1..1	SHALL		<a href="#">1198-29091</a>	<a href="#">Results Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-29092</a>	
section	1..1	SHALL		<a href="#">1198-29093</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)</a>
component	0..1	MAY		<a href="#">1198-29094</a>	
section	1..1	SHALL		<a href="#">1198-29095</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-29096</a>	
section	1..1	SHALL		<a href="#">1198-29097</a>	<a href="#">Vital Signs Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)</a>
component	0..1	SHOULD		<a href="#">1198-29098</a>	
section	1..1	SHALL		<a href="#">1198-29099</a>	<a href="#">Functional Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-29100</a>	
section	1..1	SHALL		<a href="#">1198-29101</a>	<a href="#">Physical Exam Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)</a>
component	0..1	SHOULD		<a href="#">1198-30780</a>	
section	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Nutrition Section (identifier:</a>

				<a href="#">30781</a>	<a href="#">urn:oid:2.16.840.1.113883.10.2 0.22.2.57</a>
component	0..1	SHOULD		<a href="#">1198- 30796</a>	
section	1..1	SHALL		<a href="#">1198- 30926</a>	<a href="#">Mental Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.56:2015-08-01</a>
component	0..1	MAY		<a href="#">1198- 30798</a>	
section	1..1	SHALL		<a href="#">1198- 30799</a>	<a href="#">Medical Equipment Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.23:2014-06-09</a>
component	1..1	SHALL		<a href="#">1198- 30911</a>	
section	1..1	SHALL		<a href="#">1198- 30912</a>	<a href="#">Allergies and Intolerances Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.6.1:2015-08-01</a>
component	0..1	MAY		<a href="#">1198- 30913</a>	
section	1..1	SHALL		<a href="#">1198- 30914</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.2.8</a>
component	0..1	MAY		<a href="#">1198- 30915</a>	
section	1..1	SHALL		<a href="#">1198- 30916</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.9:2014-06-09</a>
component	0..1	MAY		<a href="#">1198- 30917</a>	
section	1..1	SHALL		<a href="#">1198- 30918</a>	<a href="#">History of Past Illness Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.20:2015-08-01</a>
component	0..1	MAY		<a href="#">1198- 30919</a>	
section	1..1	SHALL		<a href="#">1198- 30920</a>	<a href="#">General Status Section (identifier: urn:oid:2.16.840.1.113883.10.2 0.2.5</a>
component	1..1	SHALL		<a href="#">1198- 30922</a>	
section	1..1	SHALL		<a href="#">1198- 30923</a>	<a href="#">Medications Section (entries required) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.1.1:2014-06-09</a>

component	1..1	SHALL		<a href="#">1198-30924</a>	
section	1..1	SHALL		<a href="#">1198-30925</a>	<a href="#">Reason for Referral Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:1.3.6.1.4.1.19376.1.5.3</a> <a href="#">.1.3.1:2014-06-09</a>

1. Conforms to [US Realm Header \(V3\)](#) template (identifier:  
[urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28947) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.1.14"** (CONF:1198-28948).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32911).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32943).
3. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [ReferralDocumentType](#) [urn:oid:2.16.840.1.113883.1.11.20.2.3 DYNAMIC](#) (CONF:1198-28949).
4. **SHALL** contain exactly one [1..1] **informationRecipient** (CONF:1198-31589).
  - a. This informationRecipient **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-31590).
    - i. This intendedRecipient **SHOULD** contain zero or more [0..\*] **addr** (CONF:1198-31591).
    - ii. This intendedRecipient **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-31592).
    - iii. This intendedRecipient **SHALL** contain exactly one [1..1] **informationRecipient** (CONF:1198-31593).
      1. This informationRecipient **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDED\)](#) (identifier:  
[urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#)) (CONF:1198-31594).
  5. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31642) such that it
    - a. **SHALL** contain exactly one [1..1] **@typeCode="IND"** Indirect (CodeSystem: [HL7ParticipationType](#) [urn:oid:2.16.840.1.113883.5.90](#)) (CONF:1198-31924).
    - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31643).

- i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode**, which **SHALL** be selected from ValueSet [INDRoleclassCodes](#)  
urn:oid:2.16.840.1.113883.11.20.9.33 **DYNAMIC** (CONF:1198-31925).
- ii. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31644).
  - 1. This associatedPerson **SHALL** contain at least one [1..\*] [US Realm Patient Name \(PTN.US.FIELDDED\)](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.5.1) (CONF:1198-31645).

This participant represents the clinician to contact for questions about the referral note. This call back contact individual may be a different person than the individual(s) identified in the author or legalAuthenticator participant.

- 6. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31647) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CALLBCK"** call back contact (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **DYNAMIC**) (CONF:1198-31648).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31649).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1198-32419).
    - ii. This associatedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31650).
    - iii. This associatedEntity **SHOULD** contain zero or more [0..\*] **addr** (CONF:1198-31651).
    - iv. This associatedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-31652).
    - v. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31653).
      - 1. This associatedPerson **SHALL** contain at least one [1..\*] **name** (CONF:1198-31654).
    - vi. This associatedEntity **MAY** contain zero or one [0..1] **scopingOrganization** (CONF:1198-31655).
- 7. **SHALL** contain exactly one [1..1] **component** (CONF:1198-29062).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-29063).
    - i. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-29066) such that it
      - 1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-29067).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29068) such that it
      - 1. **SHALL** contain exactly one [1..1] [Advance Directives Section \(entries optional\) \(V3\)](#) (identifier:

- urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01)  
 (CONF:1198-29069).
- iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29074) such that it
    - 1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier:  
 urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-29075).
  - iv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29076) such that it
    - 1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)  
 (CONF:1198-29077).
  - v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29082) such that it
    - 1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries required\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.2.1:2015-08-01)  
 (CONF:1198-29083).
  - vi. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-29086) such that it
    - 1. **SHALL** contain exactly one [1..1] [Problem Section \(entries required\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)  
 (CONF:1198-29087).
  - vii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29088) such that it
    - 1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries optional\) \(V2\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)  
 (CONF:1198-29089).
  - viii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-29090) such that it
    - 1. **SHALL** contain exactly one [1..1] [Results Section \(entries required\) \(V3\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)  
 (CONF:1198-29091).
  - ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29092) such that it
    - 1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)  
 (CONF:1198-29093).
  - x. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29094) such that it
    - 1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
(CONF:1198-29095).

- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29096) such that it
  - 1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)  
(CONF:1198-29097).
- xiii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-29098) such that it
  - 1. **SHALL** contain exactly one [1..1] [Functional Status Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)  
(CONF:1198-29099).
- xiv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-29100) such that it
  - 1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)  
(CONF:1198-29101).
- xv. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30780) such that it
  - 1. **SHALL** contain exactly one [1..1] [Nutrition Section](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-30781).
- xvi. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30796) such that it
  - 1. **SHALL** contain exactly one [1..1] [Mental Status Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01)  
(CONF:1198-30926).
- xvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30798) such that it
  - 1. **SHALL** contain exactly one [1..1] [Medical Equipment Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09)  
(CONF:1198-30799).
- xviii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-30911) such that it
  - 1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01)  
(CONF:1198-30912).
- xix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30913) such that it

1. **SHALL** contain exactly one [1..1] [Assessment Section](#)  
(identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8)  
(CONF:1198-30914).
- xix. This structuredBody **MAY** contain zero or one [0..1] [component](#) (CONF:1198-30915) such that it
  1. **SHALL** contain exactly one [1..1] [Assessment and Plan Section \(V2\)](#) (identifier:  
urn:h17ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)  
(CONF:1198-30916).
- xx. This structuredBody **MAY** contain zero or one [0..1] [component](#) (CONF:1198-30917) such that it
  1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier:  
urn:h17ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)  
(CONF:1198-30918).
- xxi. This structuredBody **MAY** contain zero or one [0..1] [component](#) (CONF:1198-30919) such that it
  1. **SHALL** contain exactly one [1..1] [General Status Section](#)  
(identifier: urn:oid:2.16.840.1.113883.10.20.2.5)  
(CONF:1198-30920).
- xxii. This structuredBody **SHALL** contain exactly one [1..1] [component](#) (CONF:1198-30922) such that it
  1. **SHALL** contain exactly one [1..1] [Medications Section \(entries required\) \(V2\)](#) (identifier:  
urn:h17ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09)  
(CONF:1198-30923).
- xxiii. This structuredBody **SHALL** contain exactly one [1..1] [component](#) (CONF:1198-30924) such that it
  1. **SHALL** contain exactly one [1..1] [Reason for Referral Section \(V2\)](#) (identifier:  
urn:h17ii:1.3.6.1.4.1.19376.1.5.3.1.3.1:2014-06-09)  
(CONF:1198-30925).
- xxiv. This structuredBody **SHALL** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09), or an Assessment Section (2.16.840.1.113883.10.20.22.2.8) and a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-29102).
- xxv. This structuredBody **SHALL NOT** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present (CONF:1198-29103).

**Table 53: ReferralDocumentType**

Value Set: ReferralDocumentType urn:oid:2.16.840.1.113883.1.11.20.2.3 A referral note provides a consulting physician specified patient information about the patient referred. Specific URL Pending Value Set Source: <a href="http://www.loinc.org/">http://www.loinc.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
57133-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Referral note
57170-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Cardiovascular disease Referral note
57178-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Critical Care Medicine Referral note
57134-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dentistry Referral note
57135-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dermatology Referral note
57136-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Diabetology Referral note
57137-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Endocrinology Referral note
57138-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Gastroenterology Referral note
57139-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	General medicine Referral note
57171-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Geriatric medicine Referral note
...			

**Figure 37: Referral Note informationRecipient Example**

```
<informationRecipient>
  <intendedRecipient>
    <informationRecipient>
      <name>
        <given>Nancy</given>
        <family>Nightingale</family>
        <suffix qualifier="AC">RN</suffix>
      </name>
    </informationRecipient>
    <receivedOrganization>
      <name>Community Health and Hospitals</name>
      <telecom value="tel:+1(555)-555-1002" use="WP" />
      <addr use="WP">
        <streetAddressLine>Cardiac Stepdown Unit, 4B </streetAddressLine>
        <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
        <city>Ann Arbor</city>
        <state>MI</state>
        <postalCode>97857</postalCode>
        <country>US</country>
      </addr>
    </receivedOrganization>
  </intendedRecipient>
</informationRecipient>
```

**Figure 38: Referral Note Caregiver Example**

```
<participant typeCode="IND">
  <functionCode code="407543004" displayName="Primary Carer"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
  <!-- Caregiver -->
  <associatedEntity classCode="CAREGIVER">
    <code code="MTH" codeSystem="2.16.840.1.113883.5.111" />
    <addr>
      <streetAddressLine>17 Daws Rd.</streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>97857</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel: 1+(555) 555-1212" use="WP" />
    <associatedPerson>
      <name>
        <prefix>Mrs.</prefix>
        <given>Martha</given>
        <family>Jones</family>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
```

**Figure 39: Referral Note Callback Contact Example**

```
<participant typeCode="CALLBCK">
  <time value="20050329224411+0500" />
  <associatedEntity classCode="ASSIGNED">
    <id extension="99999999" root="2.16.840.1.113883.4.6" />
    <code code="200000000X" codeSystem="2.16.840.1.113883.6.101" />
    displayName="Allopathic & Osteopathic Physicians" />
    <addr>
      <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>97857</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:555-555-1002" />
    <associatedPerson>
      <name>
        <given>Henry</given>
        <family>Seven</family>
        <suffix>DO</suffix>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
```

## 2.1.20 Transfer Summary (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.13:2015-08-01 (open)]

**Table 54: Transfer Summary (V2) Contexts**

Contained By:	Contains:
	<a href="#">Assessment Section</a> (optional) <a href="#">Review of Systems Section</a> (optional) <a href="#">History of Present Illness Section</a> (optional) <a href="#">General Status Section</a> (optional) <a href="#">Medications Section (entries required) (V2)</a> (required) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Nutrition Section</a> (optional) <a href="#">Procedures Section (entries required) (V2)</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Reason for Referral Section (V2)</a> (required) <a href="#">Assessment and Plan Section (V2)</a> (optional) <a href="#">Course of Care Section</a> (optional) <a href="#">Admission Diagnosis Section (V3)</a> (optional) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional)

Contained By:	Contains:
	<p><a href="#">Discharge Diagnosis Section (V3)</a> (optional)</p> <p><a href="#">Results Section (entries required) (V3)</a> (required)</p> <p><a href="#">Admission Medications Section (entries optional) (V3)</a> (optional)</p> <p><a href="#">History of Past Illness Section (V3)</a> (optional)</p> <p><a href="#">Vital Signs Section (entries required) (V3)</a> (required)</p> <p><a href="#">Problem Section (entries required) (V3)</a> (required)</p> <p><a href="#">Physical Exam Section (V3)</a> (optional)</p> <p><a href="#">Payers Section (V3)</a> (optional)</p> <p><a href="#">Social History Section (V3)</a> (optional)</p> <p><a href="#">Advance Directives Section (entries required) (V3)</a> (optional)</p> <p><a href="#">Family History Section (V3)</a> (optional)</p> <p><a href="#">Allergies and Intolerances Section (entries required) (V3)</a> (required)</p> <p><a href="#">Encounters Section (entries required) (V3)</a> (optional)</p>

This document describes constraints on the Clinical Document Architecture (CDA) header and body elements for a Transfer Summary. The Transfer Summary standardizes critical information for exchange of information between providers of care when a patient moves between health care settings.

Standardization of information used in this form will promote interoperability; create information suitable for reuse in quality measurement, public health, research, and for reimbursement.

**Table 55: Transfer Summary (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.13:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-28239</a>	
@root	1..1	SHALL		<a href="#">1198-28240</a>	2.16.840.1.113883.10.20.22.1.13
@extension	1..1	SHALL		<a href="#">1198-32907</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-28243</a>	urn:oid:2.16.840.1.113883.1.11.20.2.4 (TransferDocumentType)
title	1..1	SHALL		<a href="#">1198-29838</a>	
participant	0..*	SHOULD		<a href="#">1198-31599</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31872</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND
associatedEntity	1..1	SHALL		<a href="#">1198-31600</a>	
@classCode	1..1	SHALL		<a href="#">1198-31873</a>	urn:oid:2.16.840.1.113883.11.20.9.33 (INDRoleclassCodes)
associatedPerson	1..1	SHALL		<a href="#">1198-31601</a>	
name	1..*	SHALL		<a href="#">1198-31602</a>	
participant	0..*	SHOULD		<a href="#">1198-31626</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31627</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CALLBCK
associatedEntity	1..1	SHALL		<a href="#">1198-31628</a>	
@classCode	1..1	SHALL		<a href="#">1198-31641</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED
id	1..*	SHALL		<a href="#">1198-31629</a>	
addr	0..*	SHOULD		<a href="#">1198-31630</a>	
telecom	1..*	SHALL		<a href="#">1198-31631</a>	
associatedPerson	1..1	SHALL		<a href="#">1198-31632</a>	
name	1..*	SHALL		<a href="#">1198-31633</a>	
scopingOrganization	0..1	MAY		<a href="#">1198-31634</a>	

documentationOf	1..1	SHALL		<a href="#">1198-31570</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-31571</a>	
@classCode	1..1	SHALL		<a href="#">1198-31572</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR
code	0..1	MAY		<a href="#">1198-32650</a>	
performer	1..*	SHALL		<a href="#">1198-31574</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31575</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
functionCode	0..1	MAY		<a href="#">1198-32651</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
component	1..1	SHALL		<a href="#">1198-28251</a>	
structuredBody	1..1	SHALL		<a href="#">1198-28252</a>	
component	0..1	SHOULD		<a href="#">1198-28253</a>	
section	1..1	SHALL		<a href="#">1198-28254</a>	<a href="#">Advance Directives Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.21.1:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-28255</a>	
section	1..1	SHALL		<a href="#">1198-28256</a>	<a href="#">Allergies and Intolerances Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.6.1:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28257</a>	
section	1..1	SHALL		<a href="#">1198-28258</a>	<a href="#">Physical Exam Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.2.10:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28261</a>	
section	1..1	SHALL		<a href="#">1198-28262</a>	<a href="#">Encounters Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.2.22.1:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28263</a>	
section	1..1	SHALL		<a href="#">1198-28264</a>	<a href="#">Family History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.</a>

					<a href="#">20.22.2.15:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198-28265</a>	
section	1..1	SHALL		<a href="#">1198-28266</a>	<a href="#">Functional Status Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.14:2014-06-09</a>
component	0..1	SHOULD		<a href="#">1198-28271</a>	
section	1..1	SHALL		<a href="#">1198-28272</a>	<a href="#">Discharge Diagnosis Section (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.24:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28273</a>	
section	1..1	SHALL		<a href="#">1198-28274</a>	<a href="#">Immunizations Section (entries optional) (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.2:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28275</a>	
section	1..1	SHALL		<a href="#">1198-28276</a>	<a href="#">Medical Equipment Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.23:2014-06-09</a>
component	1..1	SHALL		<a href="#">1198-28277</a>	
section	1..1	SHALL		<a href="#">1198-28278</a>	<a href="#">Medications Section (entries required) (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.1.1:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-28279</a>	
section	1..1	SHALL		<a href="#">1198-28280</a>	<a href="#">Payers Section (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.18:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28281</a>	
section	1..1	SHALL		<a href="#">1198-28282</a>	<a href="#">Plan of Treatment Section (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.10:2014-06-09</a>
component	1..1	SHALL		<a href="#">1198-28283</a>	
section	1..1	SHALL		<a href="#">1198-28284</a>	<a href="#">Problem Section (entries required) (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.2.5.1:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198-28285</a>	

section	1..1	SHALL		<a href="#">1198-28286</a>	<a href="#">Procedures Section (entries required) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09</a>
component	1..1	SHALL		<a href="#">1198-28287</a>	
section	1..1	SHALL		<a href="#">1198-28288</a>	<a href="#">Results Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198-28289</a>	
section	1..1	SHALL		<a href="#">1198-28290</a>	<a href="#">Social History Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01</a>
component	1..1	SHALL		<a href="#">1198-28291</a>	
section	1..1	SHALL		<a href="#">1198-28292</a>	<a href="#">Vital Signs Section (entries required) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01</a>
component	0..1	SHOULD		<a href="#">1198-28327</a>	
section	1..1	SHALL		<a href="#">1198-28328</a>	<a href="#">Mental Status Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01</a>
component	0..1	MAY		<a href="#">1198-28838</a>	
section	1..1	SHALL		<a href="#">1198-28839</a>	<a href="#">General Status Section (identifier: urn:oid:2.16.840.1.113883.10.20.2.5</a>
component	0..1	MAY		<a href="#">1198-30239</a>	
section	1..1	SHALL		<a href="#">1198-30240</a>	<a href="#">Review of Systems Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18</a>
component	0..1	SHOULD		<a href="#">1198-30776</a>	
section	1..1	SHALL		<a href="#">1198-30777</a>	<a href="#">Nutrition Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57</a>
component	1..1	SHALL		<a href="#">1198-31342</a>	
section	1..1	SHALL		<a href="#">1198-31343</a>	<a href="#">Reason for Referral Section (V2) (identifier: urn:hl7ii:1.3.6.1.4.1.19376.1.5.3</a>

					<a href="#">.1.3.1:2014-06-09</a>
component	0..1	MAY		<a href="#">1198-31561</a>	
section	1..1	SHALL		<a href="#">1198-31562</a>	<a href="#">History of Past Illness Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)</a>
component	0..1	SHOULD		<a href="#">1198-31563</a>	
section	1..1	SHALL		<a href="#">1198-31564</a>	<a href="#">History of Present Illness Section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4)</a>
component	0..1	MAY		<a href="#">1198-31565</a>	
section	1..1	SHALL		<a href="#">1198-31566</a>	<a href="#">Assessment and Plan Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)</a>
component	0..1	MAY		<a href="#">1198-31567</a>	
section	1..1	SHALL		<a href="#">1198-31568</a>	<a href="#">Assessment Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8)</a>
component	0..1	MAY		<a href="#">1198-32445</a>	
section	1..1	SHALL		<a href="#">1198-32446</a>	<a href="#">Admission Medications Section (entries optional) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-32447</a>	
section	1..1	SHALL		<a href="#">1198-32448</a>	<a href="#">Admission Diagnosis Section (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01)</a>
component	0..1	MAY		<a href="#">1198-32648</a>	
section	1..1	SHALL		<a href="#">1198-32649</a>	<a href="#">Course of Care Section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.64)</a>

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: [urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01](#)).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28239) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.1.13"** (CONF:1198-28240).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32907).

- c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32946).

The Transfer Summary recommends use of the document type code 18761-7 "Provider Unspecified Transfer Summary", with further specification provided by author or performer, setting, or specialty. When pre-coordinated codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC document type. For example, an Obstetrics and Gynecology Transfer Summary note would not be authored by a Pediatric Cardiologist.

Pre-coordinated codes are those that indicate the specialty or service provided in the LOINC Long Common Name (Print Name in the TransferDocumentType valueSet table).

When using a generic type of code such as 18761-7 (Provider - Unspecified Transfer Summary), the types of services involved in the care are handled in documentationOf/serviceEvent with the use of serviceEvent/code (e.g., use a SNOMED CT procedure code such as 69031006 (Excision of breast tissue) while performers/providers involved in the care can be identified using the functionCode (bound to Healthcare Provider Taxonomy role codes).

3. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [TransferDocumentType](#) urn:oid:2.16.840.1.113883.1.11.20.2.4 **DYNAMIC** (CONF:1198-28243).
4. **SHALL** contain exactly one [1..1] **title** (CONF:1198-29838).
5. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31599) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="IND" indirect (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-31872).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31600).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode, which **SHALL** be selected from ValueSet [INDRoleclassCodes](#) urn:oid:2.16.840.1.113883.11.20.9.33 **DYNAMIC** (CONF:1198-31873).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31601).
      1. This associatedPerson **SHALL** contain at least one [1..\*] **name** (CONF:1198-31602).
6. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-31626) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="CALLBCK" Call back contact (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1198-31627).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-31628).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode="ASSIGNED" assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1198-31641).
    - ii. This associatedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-31629).
    - iii. This associatedEntity **SHOULD** contain zero or more [0..\*] **addr** (CONF:1198-31630).

- iv. This associatedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-31631).
- v. This associatedEntity **SHALL** contain exactly one [1..1] **associatedPerson** (CONF:1198-31632).
  - 1. This associatedPerson **SHALL** contain at least one [1..\*] **name** (CONF:1198-31633).
- vi. This associatedEntity **MAY** contain zero or one [0..1] **scopingOrganization** (CONF:1198-31634).

7. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1198-31570).

The serviceEvent in a Transfer Note contains the representation of providers who are wholly or partially responsible for the safety and well-being of a subject of care.

- a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-31571).
  - i. This serviceEvent **SHALL** contain exactly one [1..1] **@classCode="PCPR"** Care Provision (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-31572).

Use serviceEvent/code when using a generic document type code such as 18761-7 (Provider-Unspecified Transfer Summary) to represent the service.

- ii. This serviceEvent **MAY** contain zero or one [0..1] **code** (CONF:1198-32650).
- iii. This serviceEvent **SHALL** contain at least one [1..\*] **performer** (CONF:1198-31574) such that it
  - 1. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** Participation of Physical Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **DYNAMIC**) (CONF:1198-31575).

Use performer/functionCode when using a generic document type code such as 18761-7 (Provider-Unspecified Transfer Summary) to represent the provider.

- 2. **MAY** contain zero or one [0..1] **functionCode**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32651).

8. **SHALL** contain exactly one [1..1] **component** (CONF:1198-28251).

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1198-28252).
  - i. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28253) such that it
    - 1. **SHALL** contain exactly one [1..1] [Advance Directives Section \(entries required\) \(V3\)](#) (identifier: urn:hl7:ii:2.16.840.1.113883.10.20.22.2.21.1:2015-08-01) (CONF:1198-28254).
  - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28255) such that it
    - 1. **SHALL** contain exactly one [1..1] [Allergies and Intolerances Section \(entries required\) \(V3\)](#) (identifier:

- urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01  
(CONF:1198-28256).
- iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28257) such that it
    1. **SHALL** contain exactly one [1..1] [Physical Exam Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)  
(CONF:1198-28258).
  - iv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28261) such that it
    1. **SHALL** contain exactly one [1..1] [Encounters Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01)  
(CONF:1198-28262).
  - v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28263) such that it
    1. **SHALL** contain exactly one [1..1] [Family History Section \(V3\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)  
(CONF:1198-28264).
  - vi. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28265) such that it
    1. **SHALL** contain exactly one [1..1] [Functional Status Section \(V2\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)  
(CONF:1198-28266).
  - vii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28271) such that it
    1. **SHALL** contain exactly one [1..1] [Discharge Diagnosis Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.24:2015-08-01)  
(CONF:1198-28272).
  - viii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28273) such that it
    1. **SHALL** contain exactly one [1..1] [Immunizations Section \(entries optional\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01)  
(CONF:1198-28274).
  - ix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28275) such that it
    1. **SHALL** contain exactly one [1..1] [Medical Equipment Section \(V2\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09)  
(CONF:1198-28276).
  - x. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28277) such that it

1. **SHALL** contain exactly one [1..1] [Medications Section \(entries required\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09)  
(CONF:1198-28278).
- xi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28279) such that it
  1. **SHALL** contain exactly one [1..1] [Payers Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.18:2015-08-01)  
(CONF:1198-28280).
- xii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28281) such that it
  1. **SHALL** contain exactly one [1..1] [Plan of Treatment Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)  
(CONF:1198-28282).
- xiii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28283) such that it
  1. **SHALL** contain exactly one [1..1] [Problem Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)  
(CONF:1198-28284).
- xiv. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28285) such that it
  1. **SHALL** contain exactly one [1..1] [Procedures Section \(entries required\) \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09)  
(CONF:1198-28286).
- xv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28287) such that it
  1. **SHALL** contain exactly one [1..1] [Results Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)  
(CONF:1198-28288).
- xvi. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28289) such that it
  1. **SHALL** contain exactly one [1..1] [Social History Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)  
(CONF:1198-28290).
- xvii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-28291) such that it
  1. **SHALL** contain exactly one [1..1] [Vital Signs Section \(entries required\) \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)  
(CONF:1198-28292).

xviii. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-28327) such that it

1. **SHALL** contain exactly one [1..1] [Mental Status Section \(V2\)](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01)  
(CONF:1198-28328).

xix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-28838) such that it

1. **SHALL** contain exactly one [1..1] [General Status Section](#)  
(identifier: urn:oid:2.16.840.1.113883.10.20.2.5)  
(CONF:1198-28839).

xx. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-30239) such that it

1. **SHALL** contain exactly one [1..1] [Review of Systems Section](#)  
(identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)  
(CONF:1198-30240).

xxi. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-30776) such that it

1. **SHALL** contain exactly one [1..1] [Nutrition Section](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.2.57) (CONF:1198-30777).

xxii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1198-31342) such that it

1. **SHALL** contain exactly one [1..1] [Reason for Referral Section \(V2\)](#) (identifier:  
urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.1:2014-06-09)  
(CONF:1198-31343).

xxiii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-31561) such that it

1. **SHALL** contain exactly one [1..1] [History of Past Illness Section \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)  
(CONF:1198-31562).

xxiv. This structuredBody **SHOULD** contain zero or one [0..1] **component** (CONF:1198-31563) such that it

1. **SHALL** contain exactly one [1..1] [History of Present Illness Section](#) (identifier:  
urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:1198-31564).

xxv. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-31565) such that it

1. **SHALL** contain exactly one [1..1] [Assessment and Plan Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)  
(CONF:1198-31566).

xxvi. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-31567) such that it

1. **SHALL** contain exactly one [1..1] [Assessment Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8) (CONF:1198-31568).

xxvii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32445) such that it

1. **SHALL** contain exactly one [1..1] [Admission Medications Section \(entries optional\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01) (CONF:1198-32446).

xxviii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32447) such that it

1. **SHALL** contain exactly one [1..1] [Admission Diagnosis Section \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01) (CONF:1198-32448).

xxix. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:1198-32648) such that it

1. **SHALL** contain exactly one [1..1] [Course of Care Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.64) (CONF:1198-32649).

xxx. This structuredBody **SHALL** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09), or an Assessment Section (2.16.840.1.113883.10.20.22.2.8) and a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) (CONF:1198-31582).

xxxi. This structuredBody **SHALL NOT** contain an Assessment and Plan Section (V2) (2.16.840.1.113883.10.20.22.2.9:2014-06-09) when either an Assessment Section (2.16.840.1.113883.10.20.22.2.8) or a Plan of Treatment Section (V2) (2.16.840.1.113883.10.20.22.2.10:2014-06-09) is present (CONF:1198-31583).

**Table 56: TransferDocumentType**

Value Set: TransferDocumentType urn:oid:2.16.840.1.113883.1.11.20.2.4 A transfer document is exchanged between care providers when a patient transfers from one care setting to another.  This value set includes all LOINC codes whose Component = Transfer Summary Note* and SCALE_TYPE = Doc. Value Set Source: <a href="http://search.loinc.org/search.zul?query=transfer+summary+note">http://search.loinc.org/search.zul?query=transfer+summary+note</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
18761-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Provider-unspecified Transfer summary
68618-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Adolescent medicine Transfer summarization note
68632-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Allergy and immunology Transfer summarization note
68647-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Child and adolescent psychiatry Transfer summarization note
68660-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Clinical genetics Transfer summarization note
34755-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Critical Care Medicine Transfer summarization note
68669-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Developmental-behavioral pediatrics Transfer summarization note
34770-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	General medicine Transfer summarization note
68680-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Multi-specialty program Transfer summarization note
68704-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Neurology with special qualifications in child neurology Transfer summary note
...			

**Figure 40: Transfer Summary participant (Support) Example**

```
<participant typeCode="IND">
    <time xsi:type="IVL_TS">
        <low value="19590101" />
        <high value="20111025" />
    </time>
    <associatedEntity classCode="ECON">
        <code code="MTH" codeSystem="2.16.840.1.113883.5.111" />
        <addr>
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Ann Arbor</city>
            <state>MI</state>
            <postalCode>97857</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:(999) 555-1212" use="WP" />
        <associatedPerson>
            <name>
                <prefix>Mrs.</prefix>
                <given>Martha</given>
                <family>Jones</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
<participant typeCode="IND">
    <functionCode code="407543004" displayName="Primary Carer"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
    <time xsi:type="IVL_TS">
        <low value="19590101" />
        <high value="20111025" />
    </time>
    <associatedEntity classCode="CAREGIVER">
        <code code="MTH" codeSystem="2.16.840.1.113883.5.111" />
        <addr>
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Ann Arbor</city>
            <state>MI</state>
            <postalCode>97857</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:(999) 555-1212" use="WP" />
        <associatedPerson>
            <name>
                <prefix>Mrs.</prefix>
                <given>Martha</given>
                <family>Jones</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
```

**Figure 41: Transfer Summary Callback Contact Example**

```
<participant typeCode="CALLBCK">
  <time value="20050329224411+0500" />
  <associatedEntity classCode="ASSIGNED">
    <id extension="99999999" root="2.16.840.1.113883.4.6" />
    <code code="200000000X" codeSystem="2.16.840.1.113883.6.101" />
    <displayName>Allopathic & Osteopathic Physicians</displayName>
    <addr>
      <streetAddressLine>1002 Healthcare Drive </streetAddressLine>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>97857</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:555-555-1002" />
    <associatedPerson>
      <name>
        <given>Henry</given>
        <family>Seven</family>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
```

### 2.1.21 Unstructured Document (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.10:2015-08-01 (open)]

An Unstructured Document (UD) document type can (1) include unstructured content, such as a graphic, directly in a text element with a mediaType attribute, or (2) reference a single document file, such as a word-processing document using a text/reference element.

For guidance on how to handle multiple files, on the selection of media types for this IG, and on the identification of external files, see the examples that follow the constraints below.

IHE's XDS-SD (Cross-Transaction Specifications and Content Specifications, Scanned Documents Module) profile addresses a similar, more restricted use case, specifically for scanned documents or documents electronically created from existing text sources, and limits content to PDF-A or text. This Unstructured Documents template is applicable not only for scanned documents in non-PDF formats, but also for clinical documents produced through word processing applications, etc.

For conformance with both specifications, implementers need to ensure that their documents at a minimum conform with the SHALL constraints from either specification.

**Table 57: Unstructured Document (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.10:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7710</a>	
@root	1..1	SHALL		<a href="#">1198-10054</a>	2.16.840.1.113883.10.20.22.1.10
@extension	1..1	SHALL		<a href="#">1198-32522</a>	2015-08-01
recordTarget	1..*	SHALL		<a href="#">1198-31089</a>	
patientRole	1..1	SHALL		<a href="#">1198-31090</a>	
id	1..*	SHALL		<a href="#">1198-31091</a>	
custodian	1..1	SHALL		<a href="#">1198-31096</a>	
assignedCustodian	1..1	SHALL		<a href="#">1198-31097</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">1198-31098</a>	
component	1..1	SHALL		<a href="#">1198-31085</a>	
nonXMLBody	1..1	SHALL		<a href="#">1198-31086</a>	
text	1..1	SHALL		<a href="#">1198-31087</a>	

## 2.1.22 Properties

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7710) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.10" (CONF:1198-10054).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32522).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32944).

### 2.1.22.1 recordTarget

3. **SHALL** contain at least one [1..\*] **recordTarget** (CONF:1198-31089).

- a. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole** (CONF:1198-31090).
  - i. This patientRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-31091).

#### 2.1.22.2 custodian

- 4. **SHALL** contain exactly one [1..1] **custodian** (CONF:1198-31096).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:1198-31097).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1198-31098).
- 5. **SHALL** contain exactly one [1..1] **component** (CONF:1198-31085).

#### 2.1.22.3 nonXMLBody

An Unstructured Document must include a nonXMLBody component with a single text element. The text element can reference an external file using a reference element, or include unstructured content directly with a mediaType attribute. The nonXMLBody/text element also has a "compression" attribute that can be used to indicate that the unstructured content was compressed before being Base64Encoded. At a minimum, a compression value of "DF" for the deflate compression algorithm (RFC 1951 <http://www.ietf.org/rfc/rfc1951.txt>) must be supported although it is not required that content be compressed.

- a. This component **SHALL** contain exactly one [1..1] **nonXMLBody** (CONF:1198-31086).
  - i. This nonXMLBody **SHALL** contain exactly one [1..1] **text** (CONF:1198-31087).
    - 1. If the text element does not contain a reference element with a value attribute, then it **SHALL** contain exactly one [1..1] @representation="B64" and exactly one [1..1] @mediaType (CONF:1198-7624).
    - 2. The value of @mediaType, if present, **SHALL** be drawn from the value set 2.16.840.1.113883.11.20.7.1 SupportedFileFormats STATIC 20100512 (CONF:1198-7623).

**Table 58: SupportedFileFormats**

Value Set: SupportedFileFormats urn:oid:2.16.840.1.113883.11.20.7.1 A value set of the file formats supported by the Unstructured Document IG. Value Set Source: <a href="http://www.hl7.org">http://www.hl7.org</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
application/msword	Media Type	urn:oid:2.16.840.1.11388 3.5.79	MSWORD
application/pdf	Media Type	urn:oid:2.16.840.1.11388 3.5.79	PDF
text/plain	Media Type	urn:oid:2.16.840.1.11388 3.5.79	Plain Text
text/rtf	Media Type	urn:oid:2.16.840.1.11388 3.5.79	RTF Text
text/html	Media Type	urn:oid:2.16.840.1.11388 3.5.79	HTML Text
image/gif	Media Type	urn:oid:2.16.840.1.11388 3.5.79	GIF Image
image/tiff	Media Type	urn:oid:2.16.840.1.11388 3.5.79	TIF Image
image/jpeg	Media Type	urn:oid:2.16.840.1.11388 3.5.79	JPEG Image
image/png	Media Type	urn:oid:2.16.840.1.11388 3.5.79	PNG Image

**Figure 42: nonXMLBody Example with Embedded Content**

```
<component>
  <nonXMLBody>
    <text mediaType="text/rtf" representation="B64">e1xydGY...</text>
  </nonXMLBody>
</component>
```

**Figure 43: nonXMLBody Example with Referenced Content**

```
<component>
  <nonXMLBody>
    <text>
      <reference value="UD_sample.pdf" />
    </text>
  </nonXMLBody>
</component>
```

**Figure 44: nonXMLBody Example with Compressed Content**

```
<component>
  <nonXMLBody>
    <text mediaType="text/rtf" representation="B64"
compression="DF">dhUhkasd437hbjfQS7...</text>
  </nonXMLBody>
</component>
```

### 2.1.23 US Realm Header for Patient Generated Document (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.29.1:2015-08-01 (open)]

This template is designed to be used in conjunction with the US Realm Header (V2). It includes additional conformances which further constrain the US Realm Header (V2).

The Patient Generated Document Header template is not a separate document type. The document body may contain any structured or unstructured content from C-CDA.

**Table 59: US Realm Header for Patient Generated Document (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.29.1:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-28458</a>	
@root	1..1	SHALL		<a href="#">1198-28459</a>	2.16.840.1.113883.10.20.29.1
@extension	1..1	SHALL		<a href="#">1198-32917</a>	2015-08-01
recordTarget	1..1	SHALL		<a href="#">1198-28460</a>	
patientRole	1..1	SHALL		<a href="#">1198-28461</a>	
id	1..*	SHALL		<a href="#">1198-28462</a>	
patient	1..1	SHALL		<a href="#">1198-28465</a>	
guardian	0..*	MAY		<a href="#">1198-28469</a>	
id	0..*	SHOULD		<a href="#">1198-28470</a>	
code	0..1	SHOULD		<a href="#">1198-28473</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
languageCommunication	0..*	SHOULD		<a href="#">1198-28474</a>	
preferenceInd	0..1	MAY		<a href="#">1198-28475</a>	
providerOrganization	0..1	MAY		<a href="#">1198-28476</a>	
author	1..*	SHALL		<a href="#">1198-28477</a>	
assignedAuthor	1..1	SHALL		<a href="#">1198-28478</a>	
id	1..*	SHALL		<a href="#">1198-28479</a>	
code	0..1	SHOULD		<a href="#">1198-28481</a>	
@code	1..1	SHALL		<a href="#">1198-28676</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
dataEnterer	0..1	MAY		<a href="#">1198-28678</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-28679</a>	
code	0..1	MAY		<a href="#">1198-</a>	urn:oid:2.16.840.1.113883.11.2

				<a href="#">28680</a>	0.12.1 (Personal And Legal Relationship Role Type)
informant	0..*	MAY		<a href="#">1198-28681</a>	
relatedEntity	1..1	SHALL		<a href="#">1198-28682</a>	
code	0..1	MAY		<a href="#">1198-28683</a>	
@code	0..1	SHOULD		<a href="#">1198-28684</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
custodian	1..1	SHALL		<a href="#">1198-28685</a>	
assignedCustodian	1..1	SHALL		<a href="#">1198-28686</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">1198-28687</a>	
id	1..*	SHALL		<a href="#">1198-28688</a>	
informationRecipient	0..*	MAY		<a href="#">1198-28690</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-28691</a>	
id	0..*	SHOULD		<a href="#">1198-28692</a>	
@root	0..1	SHOULD		<a href="#">1198-28693</a>	
legalAuthenticator	0..1	MAY		<a href="#">1198-28694</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-28695</a>	
id	1..*	SHALL		<a href="#">1198-28696</a>	
code	0..1	MAY		<a href="#">1198-28697</a>	
@code	0..1	MAY		<a href="#">1198-28698</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
authenticator	0..*	MAY		<a href="#">1198-28699</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-28700</a>	
id	1..*	SHALL		<a href="#">1198-28701</a>	
code	0..1	SHOULD		<a href="#">1198-28702</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)

participant	0..*	MAY		<a href="#">1198-28703</a>	
@typeCode	1..1	SHALL		<a href="#">1198-28704</a>	
associatedEntity	1..1	SHALL		<a href="#">1198-28705</a>	
code	0..1	SHOULD		<a href="#">1198-28706</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)
inFulfillmentOf	0..*	MAY		<a href="#">1198-28707</a>	
order	1..1	SHALL		<a href="#">1198-28708</a>	
id	1..*	SHALL		<a href="#">1198-28709</a>	
documentationOf	0..*	MAY		<a href="#">1198-28710</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-28711</a>	
code	0..1	SHOULD		<a href="#">1198-28712</a>	
performer	0..*	SHOULD		<a href="#">1198-28713</a>	
functionCode	0..1	MAY		<a href="#">1198-28714</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-28715</a>	
id	1..*	SHALL		<a href="#">1198-28716</a>	
code	0..1	MAY		<a href="#">1198-28718</a>	urn:oid:2.16.840.1.113883.11.2 0.12.1 (Personal And Legal Relationship Role Type)

1. Conforms to [US Realm Header \(V3\)](#) template (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28458) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.29.1" (CONF:1198-28459).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32917).
  - c. When asserting this templateId, all C-CDA 2.1 section and entry templates that had a previous version in C-CDA R1.1 **SHALL** include both the C-CDA 2.1 templateId and the C-CDA R1.1 templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32945).

The recordTarget records the patient whose health information is described by the clinical document; each recordTarget must contain at least one patientRole element.

If the document receiver is interested in setting up a translator for the encounter with the patient, the receiver of the document will have to infer the need for a translator, based upon the language skills identified for the patient, the patient's language of preference and the predominant language used by the organization receiving the CDA.

HL7 Vocabulary simply describes guardian as a relationship to a ward. This need not be a formal legal relationship. When a guardian relationship exists for the patient, it can be represented, regardless of who is present at the time the document is generated. This need not be a formal legal relationship. A child's parent can be represented in the guardian role. In this case, the guardian/code element would encode the personal relationship of "mother" for the child's mom or "father" for the child's dad. An elderly person's child can be represented in the guardian role. In this case, the guardian/code element would encode the personal relationship of "daughter" or "son", or if a legal relationship existed, the relationship of "legal guardian" could be encoded.

3. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:1198-28460).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:1198-28461).
    - i. This patientRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-28462).
    - ii. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:1198-28465).
      1. This patient **MAY** contain zero or more [0..\*] **guardian** (CONF:1198-28469).
        - a. The guardian, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1198-28470).
        - b. The guardian, if present, **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28473).
      2. This patient **SHOULD** contain zero or more [0..\*] **languageCommunication** (CONF:1198-28474).
        - a. The languageCommunication, if present, **MAY** contain zero or one [0..1] **preferenceInd** (CONF:1198-28475).  
Note: Indicates a preference for information about care delivery and treatments be communicated (or translated if needed) into this language.

If more than one languageCommunication is present, only one languageCommunication element SHALL have a preferenceInd with a value of 1.

If present, this organization represents the provider organization where the person is claiming to be a patient.

- iii. This patientRole **MAY** contain zero or one [0..1] **providerOrganization** (CONF:1198-28476).

Note: If present, this organization represents the provider organization where the person is claiming to be a patient.

The author element represents the creator of the clinical document. The author may be a device, or a person. The person is the patient or the patient's advocate.

4. **SHALL** contain at least one [1..\*] **author** (CONF:1198-28477).
  - a. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1198-28478).
    - i. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:1198-28479).

When the author is a person who is not acting in the role of a clinician, this code encodes the personal or legal relationship between author and the patient.

- ii. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:1198-28481).
  1. The code, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28676).

The dataEnterer element represents the person who transferred the content, written or dictated by someone else, into the clinical document. The guiding rule of thumb is that an author provides the content found within the header or body of the document, subject to their own interpretation, and the dataEnterer adds that information to the electronic system. In other words, a dataEnterer transfers information from one source to another (e.g., transcription from paper form to electronic system). If the dataEnterer is missing, this role is assumed to be played by the author.

5. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:1198-28678).
  - a. The dataEnterer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-28679).
    - i. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28680).

The informant element describes the source of the information in a medical document.

Assigned health care providers may be a source of information when a document is created. (e.g., a nurse's aide who provides information about a recent significant health care event that occurred within an acute care facility.) In these cases, the assignedEntity element is used.

When the informant is a personal relation, that informant is represented in the relatedEntity element, even if the personal relation is a medical professional. The code element of the relatedEntity describes the relationship between the informant and the patient. The relationship between the informant and the patient needs to be described to help the receiver of the clinical document understand the information in the document.

Each informant can be either an assignedEntity (a clinician serving the patient) OR a relatedEntity (a person with a personal or legal relationship with the patient). The constraints here apply to relatedEntity.

6. **MAY** contain zero or more [0..\*] **informant** (CONF:1198-28681) such that it
  - a. **SHALL** contain exactly one [1..1] **relatedEntity** (CONF:1198-28682).
    - i. This relatedEntity **MAY** contain zero or one [0..1] **code** (CONF:1198-28683).
      1. The code, if present, **SHOULD** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28684).

The custodian element represents the organization or person that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the document. Every CDA document has exactly one custodian. The custodian participation satisfies the CDA definition of Stewardship. Because CDA is an exchange standard and may not represent the original form of the authenticated document (e.g., CDA could include scanned copy of original), the custodian represents the steward of the original source document. The custodian may be the document originator, a health information exchange, or other responsible party. Also, the custodian may be the patient or an organization acting on behalf of the patient, such as a PHR organization.

7. **SHALL** contain exactly one [1..1] **custodian** (CONF:1198-28685).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:1198-28686).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1198-28687).

The representedCustodianOrganization may be the person when the document is not maintained by an organization.

- i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1198-28687).

The combined @root and @extension attributes record the custodian organization's identity in a secure, trusted, and unique way.

1. This representedCustodianOrganization **SHALL** contain at least one [1..\*] **id** (CONF:1198-28688).

The informationRecipient element records the intended recipient of the information at the time the document is created. For example, in cases where the intended recipient of the document is the patient's health chart, set the receivedOrganization to be the scoping organization for that chart.

8. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:1198-28690).
  - a. The informationRecipient, if present, **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-28691).

The combined @root and @extension attributes to record the information recipient's identity in a secure, trusted, and unique way.

- i. This intendedRecipient **SHOULD** contain zero or more [0..\*] **id** (CONF:1198-28692).

For a provider, the id/@root ="2.16.840.1.113883.4.6" indicates the National Provider Identifier where id/@extension is the NPI number for the provider.

The ids MAY reference the id of a person or organization entity specified elsewhere in the document.

1. The id, if present, **SHOULD** contain zero or one [0..1] @root (CONF:1198-28693).

In a patient authored document, the legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. (Note that per the following section, there may also be one or more document authenticators.)

Based on local practice, patient authored documents may be provided without legal authentication. This implies that a patient authored document that does not contain this element has not been legally authenticated.

The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. All patient documents have the potential for legal authentication, given the appropriate legal authority.

Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the document. In these cases, the legal authenticator is the person accepting responsibility for the document, not the generating device or system.

Note that the legal authenticator, if present, must be a person.

9. **MAY** contain zero or one [0..1] **legalAuthenticator** (CONF:1198-28694).

- a. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-28695).

The combined @root and @extension attributes to record the information recipient's identity in a secure, trusted, and unique way.

- i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-28696).
- ii. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:1198-28697).

1. The code, if present, **MAY** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28698).

10. **MAY** contain zero or more [0..\*] **authenticator** (CONF:1198-28699).

- a. The authenticator, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-28700).

The combined @root and @extension attributes to record the authenticator's identity in a secure, trusted, and unique way.

- i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-28701).
- ii. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28702).

The participant element identifies other supporting participants, including parents, relatives, caregivers, insurance policyholders, guarantors, and other participants related in some way to the patient.

A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is playing multiple roles would be recorded in multiple participants (e.g., emergency contact and next-of-kin)

11. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-28703).

Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode SHALL be selected from ValueSet 2.16.840.1.113883.11.20.9.33 INDRoleclassCodes STATIC 2011-09-30

- a. The participant, if present, **SHALL** contain exactly one [1..1] @typeCode (CONF:1198-28704).
- b. The participant, if present, **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:1198-28705).
  - i. This associatedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#) urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28706).

12. **MAY** contain zero or more [0..\*] **inFulfillmentof** (CONF:1198-28707).

- a. The inFulfillmentOf, if present, **SHALL** contain exactly one [1..1] **order** (CONF:1198-28708).

A scheduled appointment or service event in a practice management system may be represented using this id element.

- i. This order **SHALL** contain at least one [1..\*] **id** (CONF:1198-28709).

13. **MAY** contain zero or more [0..\*] **documentationof** (CONF:1198-28710).

- a. The documentationOf, if present, **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-28711).

The code should be selected from a value set established by the document-level template for a specific type of Patient Generated Document.

- i. This serviceEvent **SHOULD** contain zero or one [0..1] **code** (CONF:1198-28712).
- ii. This serviceEvent **SHOULD** contain zero or more [0..\*] **performer** (CONF:1198-28713).

The functionCode SHALL be selected from value set ParticipationType 2.16.840.1.113883.1.11.10901

When indicating the performer was the primary care physician the functionCode shall be =”PCP”

1. The performer, if present, **MAY** contain zero or one [0..1] **functionCode** (CONF:1198-28714).
2. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-28715).

The combined @root and @extension attributes record the performer’s identity in a secure, trusted, and unique way.

- a. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-28716).

If the assignedEntity is an individual, the code SHOULD be selected from value set PersonalandLegalRelationshipRoleType value set

- b. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#)  
urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC**  
(CONF:1198-28718).

**Figure 45: Patient Generated Document recordTarget Example**

```

<recordTarget>
  <patientRole>
    <id extension="444-22-2222" root="2.16.840.1.113883.4.1" />
    <!-- Example Social Security Number using the actual SSN OID. -->
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
      <state>OR</state>
      <postalCode>97867</postalCode>
      <country>US</country>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
    </addr>
    <telecom value="tel:+1(555)555-2003" use="HP" />
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <patient>
      <!-- The first name element represents what the patient is known as -->
      <name use="L">
        <given>Eve</given>
        <!-- The "SP" is "Spouse" from
            HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
        <family qualifier="SP">Betterhalf</family>
      </name>
      <!-- The second name element represents another name
          associated with the patient -->
      <name>
        <given>Eve</given>
        <!-- The "BR" is "Birth" from
            HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
        <family qualifier="BR">Everywoman</family>
      </name>
      <administrativeGenderCode code="F" displayName="Female"
codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />
      <!-- Date of birth need only be precise to the day -->
      <birthTime value="19750501" />
      <maritalStatusCode code="M" displayName="Married"
codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode" />
      <religiousAffiliationCode code="1013" displayName="Christian (non-Catholic,
non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious
Affiliation" />
      <!-- CDC Race and Ethnicity code set contains the five minimum
          race and ethnicity categories defined by OMB Standards -->
      <raceCode code="2106-3" displayName="White"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <!-- The raceCode extension is only used if raceCode is valued -->
      <sdtc:raceCode code="2076-8" displayName="Hawaiian or Other Pacific Islander"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
      <guardian>
        <id root="2.16.840.1.113883.4.1" extension="111-22-3333" />
        <code code="POWATT" displayName="Power of Attorney"
codeSystem="2.16.840.1.113883.1.11.19830" codeSystemName="ResponsibleParty" />
        <addr use="HP">
          <streetAddressLine>2222 Home Street</streetAddressLine>

```

```

<city>Beaverton</city>
<state>OR</state>
<postalCode>97867</postalCode>
<country>US</country>
</addr>
<telecom value="tel:+1(555)555-2008" use="MC" />
<guardianPerson>
    <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
    </name>
</guardianPerson>
</guardian>
<birthplace>
    <place>
        <addr>
            <streetAddressLine>4444 Home Street</streetAddressLine>
            <city>Beaverton</city>
            <state>OR</state>
            <postalCode>97867</postalCode>
            <country>US</country>
        </addr>
    </place>
</birthplace>
<languageCommunication>
    <languageCode code="eng" />
    <!-- "eng" is ISO 639-2 alpha-3 code for "English" -->
    <modeCode code="ESP" displayName="Expressed spoken"
codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode" />
    <proficiencyLevelCode code="G" displayName="Good"
codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency" />
    <!-- Patient's preferred language -->
    <preferenceInd value="true" />
</languageCommunication>
</patient>
<providerOrganization>
    <id extension="219BX" root="1.1.1.1.1.1.2" />
    <name>The DoctorsTogether Physician Group</name>
    <telecom use="WP" value="tel: +(555)-555-5000" />
    <addr>
        <streetAddressLine>1007 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
    </addr>
</providerOrganization>
</patientRole>
</recordTarget>

```

**Figure 46: Patient Generated Document author Example**

```
<author>
    <time value="20121126145000-0500" />
    <assignedAuthor>
        <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
        <id extension="adameveryman@direct.sampleHISP.com" root="2.16.123.123.12345.1234"
/>
        <!--
The PGD Header Template includes further conformance constraints on the code element
to encode the personal or legal
relationship of the author when they are person who is not acting in the role of a
clinician..
-->
        <code code="ONESELF" displayName="Self" codeSystem="2.16.840.1.113883.5.111"
codeSystemName="HL7 Role code" />
        <addr use="HP">
            <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
            <streetAddressLine>2222 Home Street</streetAddressLine>
            <city>Boston</city>
            <state>MA</state>
            <postalCode>02368</postalCode>
            <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
            <country>US</country>
        </addr>
        <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
        <telecom value="tel:(555)555-2004" use="HP" />
        <assignedPerson>
            <name>
                <given>Adam</given>
                <family>Everyman</family>
            </name>
        </assignedPerson>
    </assignedAuthor>
</author>
```

**Figure 47: Patient Generated Document author device Example**

```
<!-- The Author below documents the system used to create the Patient Generated Document.
In this scenario the Patient is using a fictitious PHR Service called
MyPersonalHealthRecord.com.
It is a service which consumers purchase to receive and create their electronic health
records.
It is not a Patient Portal that is tethered to some other EMR or medical insurance
records system.
The service is developed by a company call ACME PHR Solutions, Inc. -->
<author>
    <time value="20121126145000-0500" />
    <assignedAuthor>
        <id extension="777.11" root="2.16.840.1.113883.19" />
        <addr nullFlavor="NA" />
        <telecom nullFlavor="NA" />
        <assignedAuthoringDevice>
            <manufacturerModelName>ACME PHR</manufacturerModelName>
            <softwareName>MyPHR v1.0</softwareName>
        </assignedAuthoringDevice>
        <representedOrganization>
            <id extension="999" root="1.2.3.4.5.6.7.8.9.12345" />
            <name>ACME PHR Solutions, Inc.</name>
            <telecom use="WP" value="tel:123-123-12345" />
            <addr>
                <streetAddressLine>4 Future Way</streetAddressLine>
                <city>Provenance</city>
                <state>RI</state>
                <postalCode>02919</postalCode>
            </addr>
        </representedOrganization>
    </assignedAuthor>
</author>
```

**Figure 48: Patient Generated Document dataEnterer Example**

```
<dataEnterer>
  <assignedEntity>
    <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
    a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
    <id extension="adameveryman@direct.sampleHISP.com" root="2.16.123.123.12345.1234"
/>
    <code code="ONESELF" displayName="Self" codeSystem="2.16.840.1.113883.5.111"
codeSystemName="HL7 Role code" />
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Boston</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
      <country>US</country>
    </addr>
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <telecom value="tel:(555) 555-2004" use="HP" />
    <assignedPerson>
      <name>
        <given>Adam</given>
        <family>Everyman</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</dataEnterer>
```

**Figure 49: Patient Generated Document informant Example <informant>**

```
<informant>
  <assignedEntity>
    <!-- id using HL7 example OID. -->
    <id extension="999.1" root="2.16.840.1.113883.19" />
    <code code="ONESELF" displayName="Self" codeSystem="2.16.840.1.113883.5.111"
codeSystemName="HL7 Role code" />
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Boston</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
      <country>US</country>
    </addr>
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <telecom value="tel:(555) 555-2004" use="HP" />
    <assignedPerson>
      <name>
        <given>Adam</given>
        <family>Everyman</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</informant>
```

**Figure 50: Patient Generated Document informant RelEnt Example**

```
<informant>
  <!-- An Errata has been accepted to allow relatedEntity under Informant. #XXXX -->
  <relatedEntity classCode="IND">
    <!-- id using HL7 example OID. -->
    <id extension="999.17" root="2.16.840.1.113883.19" />
    <code code="SIS" displayName="Sister" codeSystem="2.16.840.1.113883.11.20.12.1"
codeSystemName="Personal And Legal Relationship Role Type" />
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Boston</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
      <country>US</country>
    </addr>
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <telecom value="tel:(555) 555-2004" use="HP" />
    <assignedPerson>
      <name>
        <given>Alice</given>
        <family>Everyman</family>
      </name>
    </assignedPerson>
  </relatedEntity>
</informant>
```

**Figure 51: Patient Generated Document custodian Example**

```
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <!-- id using HL7 example OID. -->
      <id extension="999.3" root="2.16.840.1.113883.19" />
      <name>MyPersonalHealthRecord.Com</name>
      <telecom value="tel:(555) 555-1212" use="WP" />
      <addr use="WP">
        <streetAddressLine>123 Boylston Street</streetAddressLine>
        <city>Blue Hill</city>
        <state>MA</state>
        <postalCode>02368</postalCode>
        <country>USA</country>
      </addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
```

**Figure 52: Patient Generated Document informationRecipient**

```
<!-- The document is intended for multiple recipients, Adam himself and his PCP physician.
-->
<informationRecipient>
    <intendedRecipient>
        <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
        <id extension="adameveryman@direct.sampleHISP.com" root="2.16.123.123.12345.1234"
/>
        <informationRecipient>
            <name>
                <given>Adam</given>
                <family>Everyman</family>
            </name>
        </informationRecipient>
        <receivedOrganization>
            <!-- id using HL7 example OID. -->
            <id extension="999.3" root="2.16.840.1.113883.19" />
            <name>MyPersonalHealthRecord.Com</name>
        </receivedOrganization>
    </intendedRecipient>
</informationRecipient>
<informationRecipient>
    <intendedRecipient>
        <!-- Unique/Trusted id using HL7 example OID. -->
        <id extension="999.4" root="2.16.840.1.113883.19" />
        <!-- The physician's NPI number -->
        <id extension="1122334455" root="2.16.840.1.113883.4.6" />
        <!-- The physician's Direct Address -->
        <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
        <id extension="DrP@direct.sampleHISP2.com" root="2.16.123.123.12345.4321" />
        <telecom use="WP" value="tel:(781)555-1212" />
        <telecom use="WP" value="mailto:DrP@direct.sampleHISP2.com" />
        <informationRecipient>
            <name>
                <prefix>Dr.</prefix>
                <given>Patricia</given>
                <family>Primary</family>
            </name>
        </informationRecipient>
        <receivedOrganization>
            <!-- Unique/Trusted id using HL7 example OID. -->
            <id extension="999.2" root="2.16.840.1.113883.19" />
            <!-- NPI for the organization -->
            <id extension="1234567890" root="2.16.840.1.113883.4.6" />
            <name>Good Health Internal Medicine</name>
            <telecom use="WP" value="tel:(781)555-1212" />
            <addr>
                <streetAddressLine>100 Health Drive</streetAddressLine>
                <city>Boston</city>
                <state>MA</state>
            </addr>
        </receivedOrganization>
    </intendedRecipient>
</informationRecipient>
```

```

<postalCode>02368</postalCode>
    <country>USA</country>
  </addr>
</receivedOrganization>
</intendedRecipient>
</informationRecipient>

```

**Figure 53: Patient Generated Document legalAuthenticator Example**

```

<legalAuthenticator>
  <time value="20121126145000-0500" />
  <signatureCode code="S" />
  <assignedEntity>
    <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
    <id extension="adameveryman@direct.sampleHISP.com" root="2.16.123.123.12345.1234"
/>
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Boston</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
      <country>US</country>
    </addr>
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <telecom value="tel:(555)555-2004" use="HP" />
    <assignedPerson>
      <name>
        <given>Adam</given>
        <family>Everyman</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</legalAuthenticator>

```

**Figure 54: Patient Generated Document authenticator Example**

```
<authenticator>
  <time value="20121126145000-0500" />
  <signatureCode code="S" />
  <assignedEntity>
    <!-- Identifier based on the person's Direct Address which is a secure and trusted
mechanism for identifying
    a person discretely. The root of the id is the OID of the HISP Assigning Authority for
the Direct Address-->
    <id extension="adameveryman@direct.sampleHISP.com" root="2.16.123.123.12345.1234"
/>
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Boston</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
      <country>US</country>
    </addr>
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
    <telecom value="tel:(555) 555-2004" use="HP" />
    <assignedPerson>
      <name>
        <given>Adam</given>
        <family>Everyman</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</authenticator>
```

**Figure 55: Patient Generated Document participant Example**

```
<participant typeCode="IND">
    <time xsi:type="IVL_TS">
        <low value="19551125" />
        <high value="20121126" />
    </time>
    <associatedEntity classCode="NOK">
        <code code="MTH" codeSystem="2.16.840.1.113883.5.111" />
        <addr>
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Blue Bell</city>
            <state>MA</state>
            <postalCode>02368</postalCode>
            <country>US</country>
        </addr>
        <telecom value="tel:(555) 555-2006" use="WP" />
        <associatedPerson>
            <name>
                <prefix>Mrs.</prefix>
                <given>Martha</given>
                <family>Mum</family>
            </name>
        </associatedPerson>
    </associatedEntity>
</participant>
```

**Figure 56: Patient Generated Document inFulfillmentOf Example**

```
<inFulfillmentOf>
    <order>
        <!-- The root identifies the EMR system at the Good Health Internal Medicine
Practice -->
        <id extension="Ord12345" root="2.16.840.1.113883.4.6.1234567890.4" />
    </order>
</inFulfillmentOf>
```

## 3 SECTION-LEVEL TEMPLATES

This chapter contains the section-level templates referenced by one or more of the document types of this consolidated guide. These templates describe the purpose of each section and the section-level constraints.

Section-level templates are always included in a document. One and only one of each section type is allowed in a given document instance. Please see the document context tables to determine the sections that are contained in a given document type. Please see the conformance verb in the conformance statements to determine if it is required (SHALL), strongly recommended (SHOULD), or optional (MAY).

Each section-level template contains the following:

- Template metadata (e.g., templateId, etc.)
- Description and explanatory narrative
- LOINC section code
- Section title
- Requirements for a text element
- Entry-level template names and Ids for referenced templates (required and optional)

### Narrative Text

The text element within the section stores the narrative to be rendered, as described in the CDA R2 specification, and is referred to as the CDA narrative block.

The content model of the CDA narrative block schema is handcrafted to meet requirements of human readability and rendering. The schema is registered as a MIME type (text/x-hl7-text+xml), which is the fixed media type for the text element.

As noted in the CDA R2 specification, the document originator is responsible for ensuring that the narrative block contains the complete, human readable, attested content of the section. Structured entries support computer processing and computation and are not a replacement for the attestable, human-readable content of the CDA narrative block. The special case of structured entries with an entry relationship of "DRIV" (is derived from) indicates to the receiving application that the source of the narrative block is the structured entries, and that the contents of the two are clinically equivalent.

As for all CDA documents—even when a report consisting entirely of structured entries is transformed into CDA—the encoding application must ensure that the authenticated content (narrative plus multimedia) is a faithful and complete rendering of the clinical content of the structured source data. As a general guideline, a generated narrative block should include the same human readable content that would be available to users viewing that content in the originating system. Although content formatting in the narrative block need not be identical to that in the originating system, the narrative block should use elements from the CDA narrative block schema to provide sufficient formatting to support human readability when rendered according to the rules defined in Section Narrative Block (§ 4.3.5 ) of the CDA R2 specification.

By definition, a receiving application cannot assume that all clinical content in a section (i.e., in the narrative block and multimedia) is contained in the structured entries unless the entries in the section have an entry relationship of "DRIV".

Additional specification information for the CDA narrative block can be found in the CDA R2 specification in sections 1.2.1, 1.2.3, 1.3, 1.3.1, 1.3.2, 4.3.4.2, and 6.

### 3.1 Admission Diagnosis Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01  
(open)]

**Table 60: Admission Diagnosis Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Hospital Admission Diagnosis (V3)</a> (optional)
<a href="#">Transfer Summary (V2)</a> (optional)	

This section contains a narrative description of the problems or diagnoses identified by the clinician at the time of the patient's admission. This section may contain a coded entry which represents the admitting diagnoses.

**Table 61: Admission Diagnosis Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-9930</a>	
@root	1..1	SHALL		<a href="#">1198-10391</a>	2.16.840.1.113883.10.20.22.2.43
@extension	1..1	SHALL		<a href="#">1198-32563</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15479</a>	
@code	1..1	SHALL		<a href="#">1198-15480</a>	46241-6
@codeSystem	1..1	SHALL		<a href="#">1198-30865</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">1198-32749</a>	
@code	1..1	SHALL		<a href="#">1198-32750</a>	42347-5
@codeSystem	1..1	SHALL		<a href="#">1198-32751</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-9932</a>	
text	1..1	SHALL		<a href="#">1198-9933</a>	
entry	0..1	SHOULD		<a href="#">1198-9934</a>	
act	1..1	SHALL		<a href="#">1198-15481</a>	<a href="#">Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-9930) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.43"** (CONF:1198-10391).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32563).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15479).
  - a. This code **SHALL** contain exactly one [1..1] **@code="46241-6"** Hospital Admission diagnosis (CONF:1198-15480).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30865).

- c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32749) such that it
  - i. **SHALL** contain exactly one [1..1] @code="42347-5" Admission Diagnosis (CONF:1198-32750).
  - ii. **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-32751).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-9932).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-9933).
- 5. **SHOULD** contain zero or one [0..1] **entry** (CONF:1198-9934).
  - a. The entry, if present, **SHALL** contain exactly one [1..1] [Hospital Admission Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01) (CONF:1198-15481).

**Figure 57: Admission Diagnosis Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.43" extension="2015-08-01"/>
  <code code="46241-6" codeSystem="2.16.840.1.113883.6.1" displayName="Hospital Admission Diagnosis">
    <translation code="42347-5" codeSystem="2.16.840.1.113883.6.1" displayName="Admission Diagnosis"></translation>
  </code>
  <title>HOSPITAL ADMISSION DIAGNOSIS</title>
  <text>Appendicitis</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <!--Admission Diagnosis template -->
      ...
      ...
    </act>
  </entry>
</section>
```

### 3.2 Admission Medications Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01  
(open)]

**Table 62: Admission Medications Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Admission Medication (V2)</a> (optional)
<a href="#">Transfer Summary (V2)</a> (optional)	

The section contains the medications taken by the patient prior to and at the time of admission to the facility.

**Table 63: Admission Medications Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-10098</a>	
@root	1..1	SHALL		<a href="#">1198-10392</a>	2.16.840.1.113883.10.20.22.2.44
@extension	1..1	SHALL		<a href="#">1198-32560</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15482</a>	
@code	1..1	SHALL		<a href="#">1198-15483</a>	42346-7
@codeSystem	1..1	SHALL		<a href="#">1198-32142</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-10100</a>	
text	1..1	SHALL		<a href="#">1198-10101</a>	
entry	0..*	SHOULD		<a href="#">1198-10102</a>	
act	1..1	SHALL		<a href="#">1198-15484</a>	<a href="#">Admission Medication (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.36:2014-06-09)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-10098) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.44" (CONF:1198-10392).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32560).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15482).
  - a. This code **SHALL** contain exactly one [1..1] @code="42346-7" Medications on Admission (CONF:1198-15483).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32142).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-10100).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-10101).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-10102) such that it
  - a. **SHALL** contain exactly one [1..1] [Admission Medication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.36:2014-06-09) (CONF:1198-15484).

### 3.3 Advance Directives Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01  
(open)]

**Table 64: Advance Directives Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Advance Directive Organizer (V2)</a> (optional)

This section contains data defining the patient's advance directives and any reference to supporting documentation, including living wills, healthcare proxies, and CPR and resuscitation status. If the referenced documents are available, they can be included in the exchange package.

The most recent directives are required, if known, and should be listed in as much detail as possible.

This section differentiates between "advance directives" and "advance directive documents". The former is the directions to be followed whereas the latter refers to a legal document containing those directions.

**Table 65: Advance Directives Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7928</a>	
@root	1..1	SHALL		<a href="#">1198-10376</a>	2.16.840.1.113883.10.20.22.2.1
@extension	1..1	SHALL		<a href="#">1198-32497</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15340</a>	
@code	1..1	SHALL		<a href="#">1198-15342</a>	42348-3
@codeSystem	1..1	SHALL		<a href="#">1198-30812</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7930</a>	
text	1..1	SHALL		<a href="#">1198-7931</a>	
entry	0..*	MAY		<a href="#">1198-7957</a>	
observation	1..1	SHALL		<a href="#">1198-15443</a>	<a href="#">Advance Directive Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)</a>
entry	0..*	MAY		<a href="#">1198-32891</a>	
organizer	1..1	SHALL		<a href="#">1198-32892</a>	<a href="#">Advance Directive Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7928) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.21" (CONF:1198-10376).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32497).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15340).
  - a. This code **SHALL** contain exactly one [1..1] @code="42348-3" Advance Directives (CONF:1198-15342).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30812).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7930).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7931).

5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-7957) such that it
  - a. **SHALL** contain exactly one [1..1] [\*\*Advance Directive Observation \(V3\)\*\*](#)  
 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)  
 (CONF:1198-15443).
6. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-32891) such that it
  - a. **SHALL** contain exactly one [1..1] [\*\*Advance Directive Organizer \(V2\)\*\*](#)  
 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01)  
 (CONF:1198-32892).

### 3.3.1 Advance Directives Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.21.1:2015-08-01  
 (open) ]

**Table 66: Advance Directives Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Advance Directive Organizer (V2)</a> (optional)

This section contains data defining the patient's advance directives and any reference to supporting documentation, including living wills, healthcare proxies, and CPR and resuscitation status. If the referenced documents are available, they can be included in the exchange package.

The most recent directives are required, if known, and should be listed in as much detail as possible.

This section differentiates between "advance directives" and "advance directive documents". The former is the directions to be followed whereas the latter refers to a legal document containing those directions.

**Table 67: Advance Directives Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.21.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32800</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-30227</a>	
@root	1..1	SHALL		<a href="#">1198-30228</a>	2.16.840.1.113883.10.20.22.2.21.1
@extension	1..1	SHALL		<a href="#">1198-32512</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-32929</a>	
@code	1..1	SHALL		<a href="#">1198-32930</a>	42348-3
@codeSystem	1..1	SHALL		<a href="#">1198-32931</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-32932</a>	
text	1..1	SHALL		<a href="#">1198-32933</a>	
entry	1..*	SHALL		<a href="#">1198-30235</a>	
observation	0..1	MAY		<a href="#">1198-30236</a>	<a href="#">Advance Directive Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)</a>
organizer	0..1	MAY		<a href="#">1198-32420</a>	<a href="#">Advance Directive Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01)</a>

1. Conforms to [Advance Directives Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.21.1:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32800).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-30227) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.21.1" (CONF:1198-30228).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32512).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-32929).
  - a. This code **SHALL** contain exactly one [1..1] @code="42348-3" Advance Directives (CONF:1198-32930).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32931).
- 5. **SHALL** contain exactly one [1..1] **title** (CONF:1198-32932).
- 6. **SHALL** contain exactly one [1..1] **text** (CONF:1198-32933).

If section/@nullFlavor is not present **SHALL** contain an Advance Directive Observation (V2) **OR** an Advance Directive Organizer (NEW):

- 7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-30235) such that it
  - a. **MAY** contain zero or one [0..1] [Advance Directive Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01) (CONF:1198-30236).
  - b. **MAY** contain zero or one [0..1] [Advance Directive Organizer \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01) (CONF:1198-32420).
  - c. This entry **SHALL** contain **EITHER** an Advance Directive Observation (V2) **OR** an Advance Directive Organizer (CONF:1198-32881).

**Figure 58: Advance Directives Section (V3) Example**

```
<section>
  <!-- C-CDA Advance Directives Section (required entries)template id -->
  <templateId root="2.16.840.1.113883.10.20.22.2.21.1" extension="2015-08-01" />
  <code code="42348-3" codeSystem="2.16.840.1.113883.6.1" />
  <title>ADVANCE DIRECTIVES</title>
  <text>
    Narrative Text
  </text>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.108" />
      <!-- ***Advance Directive Organizer template -->
      <id root="af6ebdf2-d996-11e2-a5b8-f23c91aec05e" />
    </organizer>
  </entry>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.108" />
      <!-- ***Advance Directive Organizer template -->
      <id root="af6ebdf2-d996-11e2-a5b8-f23c91aec05e" />
    </organizer>
  </entry>
</section>
```

### 3.4 Allergies and Intolerances Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01  
(open)]

**Table 68: Allergies and Intolerances Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (required) <a href="#">History and Physical (V3)</a> (required) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Allergy Concern Act (V3)</a> (optional)

This section lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives). At a minimum, it should list currently active and any relevant historical allergies and adverse reactions.

**Table 69: Allergies and Intolerances Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7800</a>	
@root	1..1	SHALL		<a href="#">1198-10378</a>	2.16.840.1.113883.10.20.22.2.6
@extension	1..1	SHALL		<a href="#">1198-32544</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15345</a>	
@code	1..1	SHALL		<a href="#">1198-15346</a>	48765-2
@codeSystem	1..1	SHALL		<a href="#">1198-32139</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7802</a>	
text	1..1	SHALL		<a href="#">1198-7803</a>	
entry	0..*	SHOULD		<a href="#">1198-7804</a>	
act	1..1	SHALL		<a href="#">1198-15444</a>	<a href="#">Allergy Concern Act (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7800) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.6" (CONF:1198-10378).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32544).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15345).
- a. This code **SHALL** contain exactly one [1..1] @code="48765-2" Allergies, adverse reactions, alerts (CONF:1198-15346).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32139).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7802).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7803).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7804) such that it
- a. **SHALL** contain exactly one [1..1] [Allergy Concern Act \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01) (CONF:1198-15444).

### 3.4.1 Allergies and Intolerances Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01  
(open)]

**Table 70: Allergies and Intolerances Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (required) <a href="#">Continuity of Care Document (CCD) (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (required) <a href="#">Referral Note (V2)</a> (required)	<a href="#">Allergy Concern Act (V3)</a> (required)

This section lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives). At a minimum, it should list currently active and any relevant historical allergies and adverse reactions.

**Table 71: Allergies and Intolerances Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32824</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-7527</a>	
@root	1..1	SHALL		<a href="#">1198-10379</a>	2.16.840.1.113883.10.20.22.2.6.1
@extension	1..1	SHALL		<a href="#">1198-32545</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15349</a>	
@code	1..1	SHALL		<a href="#">1198-15350</a>	48765-2
@codeSystem	1..1	SHALL		<a href="#">1198-32140</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7534</a>	
text	1..1	SHALL		<a href="#">1198-7530</a>	
entry	1..*	SHALL		<a href="#">1198-7531</a>	
act	1..1	SHALL		<a href="#">1198-15446</a>	Allergy Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01)

1. Conforms to [Allergies and Intolerances Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32824).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-7527) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.6.1" (CONF:1198-10379).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32545).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-15349).
  - a. This code **SHALL** contain exactly one [1..1] @code="48765-2" Allergies, adverse reactions, alerts (CONF:1198-15350).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32140).
5. **SHALL** contain exactly one [1..1] title (CONF:1198-7534).
6. **SHALL** contain exactly one [1..1] text (CONF:1198-7530).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-7531) such that it
  - a. **SHALL** contain exactly one [1..1] [Allergy Concern Act \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01) (CONF:1198-15446).

**Figure 59: Allergies and Intolerances Section (entries required) (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.6.1" extension="2015-08-01" />
  <code code="48765-2" displayName="Allergies, adverse reactions, alerts"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <title>Allergies</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.30" extension="2014-06-09" />
      <!-- Allergy Concern Act template -->
      ...
      </act>
    </entry>
  </section>
```

### 3.5 Anesthesia Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09  
(open)]

**Table 72: Anesthesia Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional)
<a href="#">Operative Note (V3)</a> (required)	<a href="#">Procedure Activity Procedure (V2)</a> (optional)

The Anesthesia Section records the type of anesthesia (e.g., general or local) and may state the actual agent used. This may be a subsection of the Procedure Description Section. The full details of anesthesia are usually found in a separate Anesthesia Note.

**Table 73: Anesthesia Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.25:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8066</a>	
@root	1..1	SHALL		<a href="#">1098-10380</a>	2.16.840.1.113883.10.20.22.2.25
@extension	1..1	SHALL		<a href="#">1098-32531</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15351</a>	
@code	1..1	SHALL		<a href="#">1098-15352</a>	59774-0
@codeSystem	1..1	SHALL		<a href="#">1098-30830</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8068</a>	
text	1..1	SHALL		<a href="#">1098-8069</a>	
entry	0..*	MAY		<a href="#">1098-8092</a>	
procedure	1..1	SHALL		<a href="#">1098-15447</a>	<a href="#">Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-8094</a>	
substanceAdministration	1..1	SHALL		<a href="#">1098-31127</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8066) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.25" (CONF:1098-10380).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32531).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15351).
  - a. This code **SHALL** contain exactly one [1..1] @code="59774-0" Anesthesia (CONF:1098-15352).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30830).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8068).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8069).

5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8092) such that it
  - a. **SHALL** contain exactly one [1..1] **Procedure Activity Procedure (V2)**  
 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)  
 (CONF:1098-15447).
6. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8094) such that it
  - a. **SHALL** contain exactly one [1..1] **Medication Activity (V2)** (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-31127).

**Figure 60: Anesthesia Section (V2) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.25" extension="2014-06-09" />
  <code code="59774-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName=" Anesthesia" />
  <title>Procedure Anesthesia</title>
  <text> Conscious sedation with propofol 200 mg IV </text>
  <entry>
    <procedure classCode="PROC" moodCode="EVN">
      <!-- Procedure activity procedure template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
      ...
      ...
    </procedure>
  </entry>
  <entry>
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <!-- Medication activity template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
      ...
      ...
    </substanceAdministration>
  </entry>
</section>

```

### 3.6 Assessment and Plan Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09  
(open)]

**Table 74: Assessment and Plan Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Planned Act (V2)</a> (optional)

This section represents the clinician's conclusions and working assumptions that will guide treatment of the patient. The Assessment and Plan Section may be combined or separated to meet local policy requirements.

See also the Assessment Section: templateId 2.16.840.1.113883.10.20.22.2.8 and Plan of Treatment Section (V2): templateId 2.16.840.1.113883.10.20.22.2.10:2014-06-09

**Table 75: Assessment and Plan Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.9:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7705</a>	
@root	1..1	SHALL		<a href="#">1098-10381</a>	2.16.840.1.113883.10.20.22.2.9
@extension	1..1	SHALL		<a href="#">1098-32583</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15353</a>	
@code	1..1	SHALL		<a href="#">1098-15354</a>	51847-2
@codeSystem	1..1	SHALL		<a href="#">1098-32141</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		<a href="#">1098-7707</a>	
entry	0..*	MAY		<a href="#">1098-7708</a>	
act	1..1	SHALL		<a href="#">1098-15448</a>	<a href="#">Planned Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7705) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.9" (CONF:1098-10381).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32583).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15353).
- a. This code **SHALL** contain exactly one [1..1] @code="51847-2" Assessment and Plan (CONF:1098-15354).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32141).
3. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7707).
4. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-7708) such that it
- a. **SHALL** contain exactly one [1..1] Planned Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09) (CONF:1098-15448).

**Figure 61: Assessment and Plan Section (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.9" extension="2014-06-09" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51847-2"
displayName="ASSESSMENT AND PLAN" />
  <title>ASSESSMENT AND PLAN</title>
  <text>
    ...
  </text>
  <entry>
    <act moodCode="RQO" classCode="ACT">
      <templateId root="2.16.840.1.113883.10.20.22.4.39" />
      <!-- Planned Act -->
      ...
      </act>
    </entry>
  </section>
```

## 3.7 Assessment Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.8 (open) ]

**Table 76: Assessment Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

The Assessment Section (also referred to as “impression” or “diagnoses” outside of the context of CDA) represents the clinician’s conclusions and working assumptions that will guide treatment of the patient. The assessment may be a list of specific disease entities or a narrative block.

**Table 77: Assessment Section Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.8)					
templateId	1..1	SHALL		<a href="#">81-7711</a>	
@root	1..1	SHALL		<a href="#">81-10382</a>	2.16.840.1.113883.10.20.22.2.8
code	1..1	SHALL		<a href="#">81-14757</a>	
@code	1..1	SHALL		<a href="#">81-14758</a>	51848-0
@codeSystem	1..1	SHALL		<a href="#">81-26472</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-16774</a>	
text	1..1	SHALL		<a href="#">81-7713</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7711) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.8" (CONF:81-10382).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-14757).
  - a. This code **SHALL** contain exactly one [1..1] @code="51848-0" Assessments (CONF:81-14758).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26472).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-16774).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7713).

**Figure 62: Assessment Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.8"/>
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" code="51848-0"
    displayName="ASSESSMENTS"/>
  <title>ASSESSMENTS</title>
  <text>
    ...
  </text>
</section>
```

### 3.8 Chief Complaint and Reason for Visit Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.13 (open) ]

**Table 78: Chief Complaint and Reason for Visit Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

This section records the patient's chief complaint (the patient's own description) and/or the reason for the patient's visit (the provider's description of the reason for visit). Local policy determines whether the information is divided into two sections or recorded in one section serving both purposes.

**Table 79: Chief Complaint and Reason for Visit Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.13)					
templateId	1..1	SHALL		<a href="#">81-7840</a>	
@root	1..1	SHALL		<a href="#">81-10383</a>	2.16.840.1.113883.10.20.22.2.13
code	1..1	SHALL		<a href="#">81-15449</a>	
@code	1..1	SHALL		<a href="#">81-15450</a>	46239-0
@codeSystem	1..1	SHALL		<a href="#">81-26473</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7842</a>	
text	1..1	SHALL		<a href="#">81-7843</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7840) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.13" (CONF:81-10383).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15449).
  - a. This code **SHALL** contain exactly one [1..1] @code="46239-0" Chief Complaint and Reason for Visit (CONF:81-15450).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26473).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7842).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7843).

**Figure 63: Chief Complaint and Reason for Visit Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.13"/>
  <code code="46239-0"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="CHIEF COMPLAINT AND REASON FOR VISIT"/>
  <title> CHIEF COMPLAINT</title>
  <text>Back Pain</text>
</section>
```

### 3.9 Chief Complaint Section

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1 (open)]

**Table 80: Chief Complaint Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

This section records the patient's chief complaint (the patient's own description).

**Table 81: Chief Complaint Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)					
templateId	1..1	SHALL		<a href="#">81-7832</a>	
@root	1..1	SHALL	UID	<a href="#">81-10453</a>	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1
code	1..1	SHALL		<a href="#">81-15451</a>	
@code	1..1	SHALL		<a href="#">81-15452</a>	10154-3
@codeSystem	1..1	SHALL		<a href="#">81-26474</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7834</a>	
text	1..1	SHALL		<a href="#">81-7835</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7832) such that it
  - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1" (CONF:81-10453).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15451).
  - a. This code **SHALL** contain exactly one [1..1] @code="10154-3" Chief Complaint (CONF:81-15452).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26474).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7834).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7835).

**Figure 64: Chief Complaint Section Example**

```
<section>
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1"/>
  <code code="10154-3"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="CHIEF COMPLAINT"/>
  <title> CHIEF COMPLAINT</title>
  <text>Back Pain</text>
</section>
```

### 3.10 Complications Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.37:2015-08-01  
(open)]

**Table 82: Complications Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (required)	<a href="#">Problem Observation (V3)</a> (optional)
<a href="#">Operative Note (V3)</a> (required)	

This section contains problems that occurred during or around the time of a procedure. The complications may be known risks or unanticipated problems.

**Table 83: Complications Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.37:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8174</a>	
@root	1..1	SHALL		<a href="#">1198-10384</a>	2.16.840.1.113883.10.20.22.2.37
@extension	1..1	SHALL		<a href="#">1198-32538</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15453</a>	
@code	1..1	SHALL		<a href="#">1198-15454</a>	55109-3
@codeSystem	1..1	SHALL		<a href="#">1198-30860</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8176</a>	
text	1..1	SHALL		<a href="#">1198-8177</a>	
entry	0..*	MAY		<a href="#">1198-8795</a>	
observation	1..1	SHALL		<a href="#">1198-15455</a>	<a href="#">Problem Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8174) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.37" (CONF:1198-10384).
    - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32538).
  2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15453).
    - a. This code **SHALL** contain exactly one [1..1] @code="55109-3" Complications (CONF:1198-15454).
    - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30860).
  3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8176).
  4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-8177).
  5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-8795) such that it
    - a. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15455).
- Note: When no coded entries or negation of entries are present, narrative

section/text will be provided containing details of the complication(s) or that there were no complications.

**Figure 65: Complications Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.37" extension="2015-08-01" />
  <code code="55109-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Complications" />
  <title>Complications</title>
  <text>Asthmatic symptoms while under general anesthesia.</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Problem Observation -->
      ...
      ...
    </observation>
  </entry>
</section>
```

### 3.11 Course of Care Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.64 (open) ]

**Table 84: Course of Care Section Contexts**

Contained By:	Contains:
<a href="#">Transfer Summary (V2)</a> (optional)	

The Course of Care section describes what happened during the course of an encounter.

**Table 85: Course of Care Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.64)					
templateId	1..1	SHALL		<a href="#">1098-32640</a>	
@root	1..1	SHALL		<a href="#">1098-32642</a>	2.16.840.1.113883.10.20.22.2.64
code	1..1	SHALL		<a href="#">1098-32641</a>	
@code	1..1	SHALL		<a href="#">1098-32645</a>	8648-8
@codeSystem	1..1	SHALL		<a href="#">1098-32646</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-32643</a>	
text	1..1	SHALL		<a href="#">1098-32644</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-32640) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.64" (CONF:1098-32642).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-32641).
  - a. This code **SHALL** contain exactly one [1..1] @code="8648-8" Hospital Course Narrative (CONF:1098-32645).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32646).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-32643).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-32644).

**Figure 66: Course of Care Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.64"
    extension="2014-06-09" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
    code="8648-8" displayName="Hospital Course Narrative" />
  <title>Hospital Course of Care</title>
  <text>
    <paragraph>This patient was only recently transferred after a recurrent
      GI bleed as described below.</paragraph>
    <paragraph>He presented to the ER today c/o a dark stool yesterday
      but a normal brown stool today. On exam he was hypotensive in the
      80s resolved after .... .... .... </paragraph>
    <paragraph>Lab at discharge: Glucose 112, BUN 16, creatinine 1.1,
      electrolytes normal. H. pylori antibody pending. Admission
      hematocrit 16%, discharge hematocrit 29%. WBC 7300, platelet
      count 256,000. Urinalysis normal. Urine culture: No growth. INR
      1.1, PTT 40.</paragraph>
    <paragraph>He was transfused with 6 units of packed red blood cells
      with .... .... ....</paragraph>
    <paragraph>GI evaluation 12 September: Colonoscopy showed single red
      clot in .... .... ....</paragraph>
  </text>
</section>
```

### 3.12 DICOM Object Catalog Section - DCM 121181

[section: identifier urn:oid:2.16.840.1.113883.10.20.6.1.1 (open) ]

**Table 86: DICOM Object Catalog Section - DCM 121181 Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report [V3]</a> (optional)	<a href="#">Study Act</a> (required)

DICOM Object Catalog lists all referenced objects and their parent Series and Studies, plus other DICOM attributes required for retrieving the objects.

DICOM Object Catalog sections are not intended for viewing and contain empty section text.

**Table 87: DICOM Object Catalog Section - DCM 121181 Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.1)					
templateId	1..1	SHALL		<a href="#">81-8525</a>	
@root	1..1	SHALL	UID	<a href="#">81-10454</a>	2.16.840.1.113883.10.20.6.1.1
code	1..1	SHALL		<a href="#">81-15456</a>	
@code	1..1	SHALL		<a href="#">81-15457</a>	121181
@codeSystem	1..1	SHALL		<a href="#">81-26475</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
entry	1..*	SHALL		<a href="#">81-8530</a>	
act	1..1	SHALL		<a href="#">81-15458</a>	<a href="#">Study Act</a> (identifier: urn:oid:2.16.840.1.113883.10.2.6.2.6)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8525) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.1.1" (CONF:81-10454).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15456).
  - a. This code **SHALL** contain exactly one [1..1] @code="121181" Dicom Object Catalog (CONF:81-15457).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="1.2.840.10008.2.16.4" (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26475).
3. **SHALL** contain at least one [1..\*] **entry** (CONF:81-8530).
  - a. Such entries **SHALL** contain exactly one [1..1] [Study Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.6) (CONF:81-15458).
4. A DICOM Object Catalog **SHALL** be present if the document contains references to DICOM Images. If present, it **SHALL** be the first section in the document (CONF:81-8527).

**Figure 67: DICOM Object Catalog Section - DCM 121181 Example**

```
<section classCode="DOCSECT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.1.1"/>
  <code code="121181"
    codeSystem="1.2.840.10008.2.16.4"
    codeSystemName="DCM"
    displayName="DICOM Object Catalog"/>
  <entry>
    <!-- **** Study Act **** -->
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
      <id root="1.2.840.113619.2.62.994044785528.114289542805"/>
      <code code="113014"
        codeSystem="1.2.840.10008.2.16.4"
        codeSystemName="DCM"
        displayName="Study"/>
    <!-- **** Series Act****-->
    <entryRelationship typeCode="COMP">
      <act classCode="ACT" moodCode="EVN">
        <id root="1.2.840.113619.2.62.994044785528.20060823223142485051"/>
        <code code="113015"
          codeSystem="1.2.840.10008.2.16.4"
          codeSystemName="DCM"
          displayName="Series">
          ...
        </code>
      <!-- **** SOP Instance UID *** -->
      <!-- 2 References -->
      <entryRelationship typeCode="COMP">
        <observation classCode="DGIMG" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
          ...
        </observation>
      </entryRelationship>
      <entryRelationship typeCode="COMP">
        <observation classCode="DGIMG" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
          ...
        </observation>
      </entryRelationship>
    </act>
  </entryRelationship>
  </act>
</entry>
</section>
```

### 3.13 Discharge Diagnosis Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.24:2015-08-01  
(open)]

**Table 88: Discharge Diagnosis Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Hospital Discharge Diagnosis (V3)</a> (optional)

This template represents problems or diagnoses present at the time of discharge which occurred during the hospitalization. This section includes an optional entry to record patient diagnoses specific to this visit. Problems that need ongoing tracking should also be included in the Problem Section.

**Table 89: Discharge Diagnosis Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.24:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7979</a>	
@root	1..1	SHALL		<a href="#">1198-10394</a>	2.16.840.1.113883.10.20.22.2.4
@extension	1..1	SHALL		<a href="#">1198-32549</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15355</a>	
@code	1..1	SHALL		<a href="#">1198-15356</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 11535-2
@codeSystem	1..1	SHALL		<a href="#">1198-30861</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">1198-32834</a>	
@code	1..1	SHALL		<a href="#">1198-32835</a>	78375-3
@codeSystem	1..1	SHALL		<a href="#">1198-32836</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7981</a>	
text	1..1	SHALL		<a href="#">1198-7982</a>	
entry	0..1	SHOULD		<a href="#">1198-7983</a>	
act	1..1	SHALL		<a href="#">1198-15489</a>	<a href="#">Hospital Discharge Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.33:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7979) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.24"** (CONF:1198-10394).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32549).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15355).
  - a. This code **SHALL** contain exactly one [1..1] **@code="11535-2"** Hospital Discharge Diagnosis (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-15356).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30861).

- c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32834) such that it
  - i. **SHALL** contain exactly one [1..1] @code="78375-3" Discharge Diagnosis (CONF:1198-32835).
  - ii. **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32836).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7981).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7982).
- 5. **SHOULD** contain zero or one [0..1] **entry** (CONF:1198-7983).
  - a. The entry, if present, **SHALL** contain exactly one [1..1] [Hospital Discharge Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.33:2015-08-01) (CONF:1198-15489).

**Figure 68: Discharge Diagnosis Section (V3) Example**

```

<section>
  <!-- Discharge Diagnosis Section Template Id -->
  <templateId root="2.16.840.1.113883.10.20.22.2.24" extension="2015-08-01" />
  <code code="11535-2" displayName="Hospital Discharge Diagnosis"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC">
    <!-- Code being sought for Discharge Diagnosis - note: Concept will not be
Prognosis -->
    <translation code="C-CDAV2-DDN" displayName="Discharge Diagnosis"
                codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC"></translation>
  </code>
  <title>Discharge Diagnosis</title>
  <text>Diverticula of intestine</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <!-- Hospital discharge Diagnosis act -->
      ...
      </act>
    </entry>
  </section>

```

### 3.14 Discharge Diet Section (**DEPRECATED**)

[section: identifier urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.33:2014-06-09  
(open)]

This section records a narrative description of the expectations for diet and nutrition, including nutrition prescription, proposals, goals, and order requests for monitoring, tracking, or improving the nutritional status of the patient, used in a discharge from a facility such as an emergency department, hospital, or nursing home.

THIS TEMPLATE HAS BEEN DEPRECATED IN C-CDA R2 AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for deprecation:** This template has been replaced by the Nutrition Section (2.16.840.1.113883.10.20.22.2.57).

**Table 90: Discharge Diet Section (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.33:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7975</a>	
@root	1..1	SHALL	UID	<a href="#">1098-10455</a>	1.3.6.1.4.1.19376.1.5.3.1.3.33
@extension	1..1	SHALL		<a href="#">1098-32593</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15459</a>	
@code	1..1	SHALL		<a href="#">1098-15460</a>	42344-2
@codeSystem	1..1	SHALL		<a href="#">1098-31140</a>	
title	1..1	SHALL		<a href="#">1098-7977</a>	
text	1..1	SHALL		<a href="#">1098-7978</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7975) such that it
  - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.3.33" (CONF:1098-10455).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32593).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15459).
  - a. This code **SHALL** contain exactly one [1..1] @code="42344-2" Discharge Diet (CONF:1098-15460).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem (CONF:1098-31140).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7977).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7978).

### **3.15 Discharge Medications Section (entries optional) (V3)**

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.11:2015-08-01  
(open)]

**Table 91: Discharge Medications Section (entries optional) (V3) Contexts**

<b>Contained By:</b>	<b>Contains:</b>
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Discharge Medication (V3)</a> (optional)

This section contains the medications the patient is intended to take or stop after discharge. Current, active medications must be listed. The section may also include a patient's prescription history and indicate the source of the medication list.

**Table 92: Discharge Medications Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.11:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7816</a>	
@root	1..1	SHALL		<a href="#">1198-10396</a>	2.16.840.1.113883.10.20.22.2.11
@extension	1..1	SHALL		<a href="#">1198-32561</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15359</a>	
@code	1..1	SHALL		<a href="#">1198-15360</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 10183-2
@codeSystem	1..1	SHALL		<a href="#">1198-32480</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">1198-32854</a>	
@code	1..1	SHALL		<a href="#">1198-32855</a>	75311-1
@codeSystem	1..1	SHALL		<a href="#">1198-32856</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7818</a>	
text	1..1	SHALL		<a href="#">1198-7819</a>	
entry	0..*	SHOULD		<a href="#">1198-7820</a>	
act	1..1	SHALL		<a href="#">1198-15490</a>	<a href="#">Discharge Medication (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7816) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.11"** (CONF:1198-10396).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32561).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15359).
  - a. This code **SHALL** contain exactly one [1..1] **@code="10183-2"** Hospital Discharge medications (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-15360).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32480).

- c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32854) such that it
  - i. **SHALL** contain exactly one [1..1] @code="75311-1" Discharge medications (CONF:1198-32855).
  - ii. **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32856).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7818).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7819).
- 5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7820) such that it
  - a. **SHALL** contain exactly one [1..1] [Discharge Medication \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01) (CONF:1198-15490).

### 3.15.1 Discharge Medications Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.11.1:2015-08-01 (open) ]

**Table 93: Discharge Medications Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Discharge Medication (V3)</a> (required)

This section contains the medications the patient is intended to take or stop after discharge. Current, active medications must be listed. The section may also include a patient's prescription history and indicate the source of the medication list.

**Table 94: Discharge Medications Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.11.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32812</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-7822</a>	
@root	1..1	SHALL		<a href="#">1198-10397</a>	2.16.840.1.113883.10.20.22.2.11.1
@extension	1..1	SHALL		<a href="#">1198-32562</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15361</a>	
@code	1..1	SHALL		<a href="#">1198-15362</a>	10183-2
@codeSystem	1..1	SHALL		<a href="#">1198-32145</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">1198-32857</a>	
@code	1..1	SHALL		<a href="#">1198-32858</a>	75311-1
@codeSystem	1..1	SHALL		<a href="#">1198-32859</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7824</a>	
text	1..1	SHALL		<a href="#">1198-7825</a>	
entry	1..*	SHALL		<a href="#">1198-7826</a>	
act	1..1	SHALL		<a href="#">1198-15491</a>	<a href="#">Discharge Medication (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01)</a>

1. Conforms to [Discharge Medications Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.11.1:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32812).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-7822) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.11.1" (CONF:1198-10397).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32562).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-15361).

- a. This code **SHALL** contain exactly one [1..1] @code="10183-2" Hospital Discharge Medications (CONF:1198-15362).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32145).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32857) such that it
    - i. **SHALL** contain exactly one [1..1] @code="75311-1" Discharge Medications (CONF:1198-32858).
    - ii. **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32859).
5. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7824).
6. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7825).

If section/@nullFlavor is not present:

- 7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-7826) such that it
  - a. **SHALL** contain exactly one [1..1] [Discharge Medication \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01) (CONF:1198-15491).

**Figure 69: Discharge Medication Section (V3) (entries required) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.11.1" extension="2015-08-01" />
  <code code="10183-2" displayName="Hospital Discharge Medications"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC">
    <translation code="75311-1" displayName="Discharge Medications"
                codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC"></translation>
  </code>
  <title>Discharge Medications</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <!-- Discharge Medication Entry -->
      ...
      </act>
    </entry>
    ...
  </section>

```

### 3.16 Encounters Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01  
(open)]

**Table 95: Encounters Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional)	<a href="#">Encounter Activity (V3)</a> (optional)

This section lists and describes any healthcare encounters pertinent to the patient's current health status or historical health history. An encounter is an interaction, regardless of the setting, between a patient and a practitioner who is vested with primary responsibility for diagnosing, evaluating, or treating the patient's condition. It may include visits, appointments, or non-face-to-face interactions. It is also a contact between a patient and a practitioner who has primary responsibility (exercising independent judgment) for assessing and treating the patient at a given contact. This section may contain all encounters for the time period being summarized, but should include notable encounters.

**Table 96: Encounters Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7940</a>	
@root	1..1	SHALL		<a href="#">1198-10386</a>	2.16.840.1.113883.10.20.22.2.2
@extension	1..1	SHALL		<a href="#">1198-32547</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15461</a>	
@code	1..1	SHALL		<a href="#">1198-15462</a>	46240-8
@codeSystem	1..1	SHALL		<a href="#">1198-31136</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7942</a>	
text	1..1	SHALL		<a href="#">1198-7943</a>	
entry	0..*	SHOULD		<a href="#">1198-7951</a>	
encounter	1..1	SHALL		<a href="#">1198-15465</a>	<a href="#">Encounter Activity (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.49:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7940) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.22" (CONF:1198-10386).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32547).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15461).
- a. This code **SHALL** contain exactly one [1..1] @code="46240-8" Encounters (CONF:1198-15462).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31136).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7942).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7943).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7951) such that it
- a. **SHALL** contain exactly one [1..1] [Encounter Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:1198-15465).

### 3.16.1 Encounters Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01  
(open)]

**Table 97: Encounters Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Encounter Activity (V3)</a> (required)

This section lists and describes any healthcare encounters pertinent to the patient's current health status or historical health history. An encounter is an interaction, regardless of the setting, between a patient and a practitioner who is vested with primary responsibility for diagnosing, evaluating, or treating the patient's condition. It may include visits, appointments, as well as non-face-to-face interactions. It is also a contact between a patient and a practitioner who has primary responsibility (exercising independent judgment) for assessing and treating the patient at a given contact. This section may contain all encounters for the time period being summarized, but should include notable encounters.

**Table 98: Encounters Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32815</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-8705</a>	
@root	1..1	SHALL		<a href="#">1198-10387</a>	2.16.840.1.113883.10.20.22.2.2.1
@extension	1..1	SHALL		<a href="#">1198-32548</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15466</a>	
@code	1..1	SHALL		<a href="#">1198-15467</a>	46240-8
@codeSystem	1..1	SHALL		<a href="#">1198-31137</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8707</a>	
text	1..1	SHALL		<a href="#">1198-8708</a>	
entry	1..*	SHALL		<a href="#">1198-8709</a>	
encounter	1..1	SHALL		<a href="#">1198-15468</a>	<a href="#">Encounter Activity (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01)</a>

1. Conforms to [Encounters Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32815).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-8705) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.22.1" (CONF:1198-10387).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32548).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-15466).
  - a. This code **SHALL** contain exactly one [1..1] @code="46240-8" Encounters (CONF:1198-15467).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:1198-31137).
5. **SHALL** contain exactly one [1..1] title (CONF:1198-8707).
6. **SHALL** contain exactly one [1..1] text (CONF:1198-8708).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-8709) such that it
  - a. **SHALL** contain exactly one [1..1] [Encounter Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:1198-15468).

**Figure 70: Encounters Section (entries required) (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.22.1" extension="2015-08-01" />
  <!-- Encounters Section - Entries required -->
  <code code="46240-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="History of encounters" />
  <title>Encounters</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- Encounter Activities -->
      ...
      </encounter>
    </entry>
  </section>
```

### 3.17 Family History Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01  
(open)]

**Table 99: Family History Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Family History Organizer (V3)</a> (optional)

This section contains data defining the patient's genetic relatives in terms of possible or relevant health risk factors that have a potential impact on the patient's healthcare risk profile.

**Table 100: Family History Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.15:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7932</a>	
@root	1..1	SHALL		<a href="#">1198-10388</a>	2.16.840.1.113883.10.20.22.2.15
@extension	1..1	SHALL		<a href="#">1198-32607</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15469</a>	
@code	1..1	SHALL		<a href="#">1198-15470</a>	10157-6
@codeSystem	1..1	SHALL		<a href="#">1198-32481</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7934</a>	
text	1..1	SHALL		<a href="#">1198-7935</a>	
entry	0..*	MAY		<a href="#">1198-32430</a>	
organizer	1..1	SHALL		<a href="#">1198-32431</a>	<a href="#">Family History Organizer (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7932) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.15" (CONF:1198-10388).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32607).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15469).
  - a. This code **SHALL** contain exactly one [1..1] @code="10157-6" Family History (CONF:1198-15470).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32481).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7934).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7935).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-32430) such that it
  - a. **SHALL** contain exactly one [1..1] [Family History Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) (CONF:1198-32431).

**Figure 71: Family History Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.15" extension="2015-08-01" />
  <!-- Family history section template -->
  <code code="10157-6" codeSystem="2.16.840.1.113883.6.1" />
  <title>Family history</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <organizer moodCode="EVN" classCode="CLUSTER">
      <templateId root="2.16.840.1.113883.10.20.22.4.45" />
      <!-- Family history organizer template -->
      ...
      </organizer>
    </entry>
  </section>
```

### 3.18 Fetus Subject Context

[relatedSubject: identifier urn:oid:2.16.840.1.113883.10.20.6.2.3 (open) ]

**Table 101: Fetus Subject Context Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	

For reports on mothers and their fetus(es), information on a mother is mapped to recordTarget, PatientRole, and Patient. Information on the fetus is mapped to subject, relatedSubject, and SubjectPerson at the CDA section level. Both context information on the mother and fetus must be included in the document if observations on fetus(es) are contained in the document.

**Table 102: Fetus Subject Context Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
relatedSubject (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.3)					
templateId	1..1	SHALL		<a href="#">81-9189</a>	
@root	1..1	SHALL		<a href="#">81-10535</a>	2.16.840.1.113883.10.20.6.2.3
code	1..1	SHALL		<a href="#">81-9190</a>	
@code	1..1	SHALL		<a href="#">81-26455</a>	121026
@codeSystem	1..1	SHALL		<a href="#">81-26476</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
subject	1..1	SHALL		<a href="#">81-9191</a>	
name	1..1	SHALL		<a href="#">81-15347</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9189) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.3" (CONF:81-10535).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-9190).
  - a. This code **SHALL** contain exactly one [1..1] @code="121026" (CONF:81-26455).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="1.2.840.10008.2.16.4" (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26476).
3. **SHALL** contain exactly one [1..1] **subject** (CONF:81-9191).

The name element is used to store the DICOM fetus ID, typically a pseudonym such as fetus\_1.

- a. This subject **SHALL** contain exactly one [1..1] **name** (CONF:81-15347).

**Figure 72: Fetus Subject Context Example**

```
<relatedSubject>
  <templateId root="2.16.840.1.113883.10.20.6.2.3"/>
  <code code="121026"
    codeSystem="1.2.840.10008.2.16.4"
    displayName="Fetus"/>
  <subject>
    <name>fetus_1</name>
  </subject>
</relatedSubject>
```

### 3.19 Findings Section (DIR)

[section: identifier urn:oid:2.16.840.1.113883.10.20.6.1.2 (open) ]

**Table 103: Findings Section (DIR) Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (required)	

The Findings section contains the main narrative body of the report. While not an absolute requirement for transformed DICOM SR reports, it is suggested that Diagnostic Imaging Reports authored in CDA follow Term Info guidelines for the codes in the various observations and procedures recorded in this section.

**Table 104: Findings Section (DIR) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.6.1.2)					
templateId	1..1	SHALL		<a href="#">81-8531</a>	
@root	1..1	SHALL	UID	<a href="#">81-10456</a>	2.16.840.1.113883.10.20.6.1.2

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8531) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.1.2" (CONF:81-10456).
2. This section **SHOULD** contain only the direct observations in the report, with topics such as Reason for Study, History, and Impression placed in separate sections. However, in cases where the source of report content provides a single block of text not separated into these sections, that text **SHALL** be placed in the Findings section (CONF:81-8532).

**Figure 73: Findings Section (DIR) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.6.1.2"/>
  <code code="121070"
    codeSystem="1.2.840.10008.2.16.4"
    codeSystemName="DCM"
    displayName="Findings"/>
  <title>Findings</title>
  <text>
    <paragraph>
      <caption>Finding</caption>
      <content ID="Fndng2">The cardiome diastinum is . </content>
    </paragraph>
    <paragraph>
      <caption>Diameter</caption>
      <content ID="Diam2">45mm</content>
    </paragraph>
    ...
  </text>
  <entry>
    <templateId root="2.16.840.1.113883.10.20.6.2.12"/>
    ...
  </entry>
</section>

```

## 3.20 Functional Status Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09  
 (open)]

**Table 105: Functional Status Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Caregiver Characteristics</a> (optional) <a href="#">Assessment Scale Observation</a> (optional) <a href="#">Sensory Status</a> (optional) <a href="#">Self-Care Activities (ADL and IADL)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Functional Status Organizer (V2)</a> (optional) <a href="#">Pressure Ulcer Observation (DEPRECATED)</a> (optional) <a href="#">Cognitive Status Problem Observation (DEPRECATED)</a> (optional) <a href="#">Functional Status Problem Observation (DEPRECATED)</a> (optional)

The Functional Status Section contains observations and assessments of a patient's physical abilities. A patient's functional status may include information regarding the patient's ability to

perform Activities of Daily Living (ADLs) in areas such as Mobility (e.g., ambulation), Self-Care (e.g., bathing, dressing, feeding, grooming) or Instrumental Activities of Daily Living (IADLs) (e.g., shopping, using a telephone, balancing a check book). Problems that impact function (e.g., dyspnea, dysphagia) can be contained in the section.

**Table 106: Functional Status Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.14:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7920</a>	
@root	1..1	SHALL		<a href="#">1098-10389</a>	2.16.840.1.113883.10.20.22.2.14
@extension	1..1	SHALL		<a href="#">1098-32567</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-14578</a>	
@code	1..1	SHALL		<a href="#">1098-14579</a>	47420-5
@codeSystem	1..1	SHALL		<a href="#">1098-30866</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7922</a>	
text	1..1	SHALL		<a href="#">1098-7923</a>	
entry	0..*	MAY		<a href="#">1098-14414</a>	
organizer	1..1	SHALL		<a href="#">1098-14415</a>	<a href="#">Functional Status Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.66:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-14418</a>	
observation	1..1	SHALL		<a href="#">1098-14419</a>	<a href="#">Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-14426</a>	
observation	1..1	SHALL		<a href="#">1098-14427</a>	<a href="#">Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.2.02.4.72)</a>
entry	0..*	MAY		<a href="#">1098-14580</a>	
observation	1..1	SHALL		<a href="#">1098-14581</a>	<a href="#">Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.2.02.4.69)</a>
entry	0..*	MAY		<a href="#">1098-14582</a>	
supply	1..1	SHALL		<a href="#">1098-</a>	<a href="#">Non-Medicinal Supply Activity</a>

				<a href="#">30783</a>	<a href="#">(V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-32792</a>	
observation	1..1	SHALL		<a href="#">1098-31009</a>	<a href="#">Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128)</a>
entry	0..*	MAY		<a href="#">1098-16779</a>	
observation	1..1	SHALL		<a href="#">1098-31011</a>	<a href="#">Sensory Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127)</a>
entry	0..*	MAY		<a href="#">1098-14424</a>	
observation	1..1	SHALL		<a href="#">1098-14425</a>	<a href="#">Cognitive Status Problem Observation (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.73:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-14422</a>	
observation	1..1	SHALL		<a href="#">1098-14423</a>	<a href="#">Functional Status Problem Observation (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.68:2014-06-09)</a>
entry	0..*	MAY		<a href="#">1098-16777</a>	
observation	1..1	SHALL		<a href="#">1098-16778</a>	<a href="#">Pressure Ulcer Observation (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.70:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7920) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.14" (CONF:1098-10389).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32567).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-14578).
  - a. This code **SHALL** contain exactly one [1..1] @code="47420-5" Functional Status (CONF:1098-14579).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30866).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7922).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7923).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14414) such that it

- a. **SHALL** contain exactly one [1..1] [Functional Status Organizer \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.66:2014-06-09)  
(CONF:1098-14415).
- 6. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14418) such that it
  - a. **SHALL** contain exactly one [1..1] [Functional Status Observation \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)  
(CONF:1098-14419).
- 7. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14426) such that it
  - a. **SHALL** contain exactly one [1..1] [Caregiver Characteristics](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1098-14427).
- 8. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14580) such that it
  - a. **SHALL** contain exactly one [1..1] [Assessment Scale Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1098-14581).
- 9. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14582) such that it
  - a. **SHALL** contain exactly one [1..1] [Non-Medicinal Supply Activity \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)  
(CONF:1098-30783).
- 10. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-32792) such that it
  - a. **SHALL** contain exactly one [1..1] [Self-Care Activities \(ADL and IADL\)](#)  
(identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:1098-31009).
- 11. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-16779) such that it
  - a. **SHALL** contain exactly one [1..1] [Sensory Status](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127) (CONF:1098-31011).
- 12. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14424) such that it
  - a. **SHALL** contain exactly one [1..1] [Cognitive Status Problem Observation \(DEPRECATED\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.73:2014-06-09) (CONF:1098-14425).
- 13. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14422) such that it
  - a. **SHALL** contain exactly one [1..1] [Functional Status Problem Observation \(DEPRECATED\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.68:2014-06-09) (CONF:1098-14423).
- 14. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-16777) such that it
  - a. **SHALL** contain exactly one [1..1] [Pressure Ulcer Observation \(DEPRECATED\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.70:2014-06-09)  
(CONF:1098-16778).

**Figure 74: Functional Status Section (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.14" extension="2014-06-09" />
  <!-- Functional Status Section template V2-->
  <code code="47420-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Functional Status" />
  <title>FUNCTIONAL STATUS</title>
  <text>
    ...
  </text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Self Care Activities (NEW)-->
      <templateId root="2.16.840.1.113883.10.20.22.4.128" />
      ...
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Sensory and Speech Status(NEW)-->
      <templateId root="2.16.840.1.113883.10.20.22.4.127" />
      ...
    </observation>
  </entry>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- Functional Status Organizer V2-->
      <templateId root="2.16.840.1.113883.10.20.22.4.66" extension="2014-06-09" />
      ...
    </organizer>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Functional Status Observation V2-->
      <templateId root="2.16.840.1.113883.10.20.22.4.67" extension="2014-06-09" />
      ...
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- ** Caregiver characteristics ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.72" />
      ...
    </observation>
  </entry>
</section>
```

### 3.21 General Status Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.2.5 (open) ]

**Table 107: General Status Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional)	

The General Status section describes general observations and readily observable attributes of the patient, including affect and demeanor, apparent age compared to actual age, gender, ethnicity, nutritional status based on appearance, body build and habitus (e.g., muscular, cachectic, obese), developmental or other deformities, gait and mobility, personal hygiene, evidence of distress, and voice quality and speech.

**Table 108: General Status Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.2.5)					
templateId	1..1	SHALL		<a href="#">81-7985</a>	
@root	1..1	SHALL	UID	<a href="#">81-10457</a>	2.16.840.1.113883.10.20.2.5
code	1..1	SHALL		<a href="#">81-15472</a>	
@code	1..1	SHALL		<a href="#">81-15473</a>	10210-3
@codeSystem	1..1	SHALL		<a href="#">81-26477</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7987</a>	
text	1..1	SHALL		<a href="#">81-7988</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7985) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.2.5"** (CONF:81-10457).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15472).
  - a. This code **SHALL** contain exactly one [1..1] **@code="10210-3"** General Status (CONF:81-15473).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26477).

3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7987).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7988).

**Figure 75: General Status Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.2.5" />
  <code code="10210-3"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="GENERAL STATUS" />
  <title>GENERAL STATUS</title>
  <text>
    <paragraph>Alert and in good spirits, no acute distress.
    </paragraph>
  </text>
</section>
```

## 3.22 Goals Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.60 (open)]

**Table 109: Goals Section Contexts**

Contained By:	Contains:
<a href="#">Care Plan (V2)</a> (required)	<a href="#">Goal Observation</a> (required)

This template represents patient Goals. A goal is a defined outcome or condition to be achieved in the process of patient care. Goals include patient-defined over-arching goals (e.g., alleviation of health concerns, desired/intended positive outcomes from interventions, longevity, function, symptom management, comfort) and health concern-specific or intervention-specific goals to achieve desired outcomes.

**Table 110: Goals Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.60)					
@nullFlavor	0..1	MAY		<a href="#">1098-32819</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1098-29584</a>	
@root	1..1	SHALL		<a href="#">1098-29585</a>	2.16.840.1.113883.10.20.22.2.60
code	1..1	SHALL		<a href="#">1098-29586</a>	
@code	1..1	SHALL		<a href="#">1098-29587</a>	61146-7
@codeSystem	1..1	SHALL		<a href="#">1098-29588</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-30721</a>	
text	1..1	SHALL		<a href="#">1098-30722</a>	
entry	1..*	SHALL		<a href="#">1098-30719</a>	
observation	1..1	SHALL		<a href="#">1098-30720</a>	<a href="#">Goal Observation</a> (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121)

1. **MAY** contain zero or one [0..1] **@nullFlavor="NI"** No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-32819).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29584) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.60"** (CONF:1098-29585).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29586).
  - a. This code **SHALL** contain exactly one [1..1] **@code="61146-7"** Goals (CONF:1098-29587).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-29588).
4. **SHALL** contain exactly one [1..1] **title** (CONF:1098-30721).
5. **SHALL** contain exactly one [1..1] **text** (CONF:1098-30722).

If section/@nullFlavor is not present:

6. **SHALL** contain at least one [1..\*] **entry** (CONF:1098-30719) such that it
  - a. **SHALL** contain exactly one [1..1] [Goal Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:1098-30720).

**Figure 76: Goals Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.60" />
  <code code="61146-7" displayName="Goals" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" />
  <title>Goals Section</title>
  <text />
  <entry>
    <observation />
  </entry>
</section>
```

### 3.23 Health Concerns Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.58:2015-08-01  
(open)]

**Table 111: Health Concerns Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Care Plan (V2)</a> (required)	<a href="#">Health Status Observation (V2)</a> (optional) <a href="#">Health Concern Act (V2)</a> (required) <a href="#">Risk Concern Act (V2)</a> (optional)

This section contains data describing an interest or worry about a health state or process that could possibly require attention, intervention, or management. A Health Concern is a health related matter that is of interest, importance or worry to someone, who may be the patient, patient's family or patient's health care provider. Health concerns are derived from a variety of sources within an EHR (such as Problem List, Family History, Social History, Social Worker Note, etc.). Health concerns can be medical, surgical, nursing, allied health or patient-reported concerns.

Problem Concerns are a subset of Health Concerns that have risen to the level of importance that they typically would belong on a classic “Problem List”, such as “Diabetes Mellitus” or “Family History of Melanoma” or “Tobacco abuse”. These are of broad interest to multiple members of the care team. Examples of other Health Concerns that might not typically be considered a Problem Concern include “Risk of Hyperkalemia” for a patient taking an ACE-inhibitor medication, or “Transportation difficulties” for someone who doesn't drive and has trouble getting to appointments, or “Under-insured” for someone who doesn't have sufficient insurance to properly cover their medical needs such as medications. These are typically most important to just a limited number of care team members.

**Table 112: Health Concerns Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.58:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32802</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-28804</a>	
@root	1..1	SHALL		<a href="#">1198-28805</a>	2.16.840.1.113883.10.20.22.2.58
@extension	1..1	SHALL		<a href="#">1198-32862</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-28806</a>	
@code	1..1	SHALL		<a href="#">1198-28807</a>	75310-3
@codeSystem	1..1	SHALL		<a href="#">1198-28808</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-28809</a>	
text	1..1	SHALL		<a href="#">1198-28810</a>	
entry	0..*	SHOULD		<a href="#">1198-30483</a>	
observation	1..1	SHALL		<a href="#">1198-30484</a>	<a href="#">Health Status Observation (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09)</a>
entry	1..*	SHALL		<a href="#">1198-30768</a>	
act	1..1	SHALL		<a href="#">1198-30769</a>	<a href="#">Health Concern Act (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2015-08-01)</a>
entry	0..*	MAY		<a href="#">1198-32308</a>	
act	1..1	SHALL		<a href="#">1198-32309</a>	<a href="#">Risk Concern Act (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.136:2015-08-01)</a>

1. **MAY** contain zero or one [0..1] **@nullFlavor="NI"** No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32802).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28804) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.58"** (CONF:1198-28805).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32862).

3. **SHALL** contain exactly one [1..1] **code** (CONF:1198-28806).
  - a. This code **SHALL** contain exactly one [1..1] @code="75310-3" Health concerns document (CONF:1198-28807).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-28808).
4. **SHALL** contain exactly one [1..1] **title** (CONF:1198-28809).
5. **SHALL** contain exactly one [1..1] **text** (CONF:1198-28810).
6. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-30483) such that it
  - a. **SHALL** contain exactly one [1..1] [Health Status Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09) (CONF:1198-30484).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-30768) such that it
  - a. **SHALL** contain exactly one [1..1] [Health Concern Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2015-08-01) (CONF:1198-30769).
8. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-32308) such that it
  - a. **SHALL** contain exactly one [1..1] [Risk Concern Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.136:2015-08-01) (CONF:1198-32309).

**Figure 77: Health Concerns Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.58" />
  <code code="75310-3" displayName="Health Concerns Document"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <title>Health Concerns Section</title>
  <text>
    ...
  </text>
  <entry>
    <!-- Health Status Observation -->
  </entry>
  <entry>
    <!-- Health Concern Act -->
  </entry>
</section>
```

### 3.24 Health Status Evaluations and Outcomes Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.61 (open)]

**Table 113: Health Status Evaluations and Outcomes Section Contexts**

Contained By:	Contains:
<a href="#">Care Plan (V2)</a> (optional)	<a href="#">Outcome Observation</a> (required)

This template represents observations regarding the outcome of care from the interventions used to treat the patient. These observations represent status, at points in time, related to established care plan goals and/or interventions.

**Table 114: Health Status Evaluations and Outcomes Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.61)					
@nullFlavor	0..1	MAY		<a href="#">1098-32821</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1098-29578</a>	
@root	1..1	SHALL		<a href="#">1098-29579</a>	2.16.840.1.113883.10.20.22.2.61
code	1..1	SHALL		<a href="#">1098-29580</a>	
@code	1..1	SHALL		<a href="#">1098-29581</a>	11383-7
@codeSystem	1..1	SHALL		<a href="#">1098-29582</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-29589</a>	
text	1..1	SHALL		<a href="#">1098-29590</a>	
entry	1..*	SHALL		<a href="#">1098-31227</a>	
observation	1..1	SHALL		<a href="#">1098-31228</a>	<a href="#">Outcome Observation</a> (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.61 (CONF:1098-31228))

1. **MAY** contain zero or one [0..1] **@nullFlavor**="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-32821).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29578) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.61" (CONF:1098-29579).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29580).

- a. This code **SHALL** contain exactly one [1..1] @code="11383-7" Patient Problem Outcome (CONF:1098-29581).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-29582).
- 4. **SHALL** contain exactly one [1..1] **title** (CONF:1098-29589).
- 5. **SHALL** contain exactly one [1..1] **text** (CONF:1098-29590).

If section/@nullFlavor is not present:

- 6. **SHALL** contain at least one [1..\*] **entry** (CONF:1098-31227) such that it
  - a. **SHALL** contain exactly one [1..1] **Outcome Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.144) (CONF:1098-31228).

**Figure 78: Health Status Evaluations and Outcomes Section Example**

```

<section>
  <!-- Health Status Evaluations/Outcomes Section -->
  <templateId root="2.16.840.1.113883.10.20.22.2.61" />
  <code code="11383-7" displayName="Patient Problem Outcome"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <title>Health Status Evaluations/Outcomes Section</title>
  <text>
    <list>
      <item>
        <content styleCode="Bold">Pulse oximetry greater than 92% on room air</content>:
MET <list>
      <item>Evaluates Expected Outcome/Goal:
        <content styleCode="Bold">
          Pulse oximetry greater than 92% on room air
        </content>
      </item>
      <item>Supported by: Pulse oximetry 95% on room air (March 21, 2013 at
15:20)</item>
    </list>
  </item>
</list>
</text>
<entry>
  <!-- Outcome Observation -->
  <observation classCode="OBS" moodCode="EVN">
    ...
  </observation>
</entry>
<entry>
  <!-- Outcome Observation -->
  <observation classCode="OBS" moodCode="EVN">
    ...
  </observation>
</entry>
...
</section>

```

### 3.25 History of Past Illness Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01  
(open)]

**Table 115: History of Past Illness Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (optional)

This section contains a record of the patient's past complaints, problems, and diagnoses. It contains data from the patient's past up to the patient's current complaint or reason for seeking medical care.

**Table 116: History of Past Illness Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.20:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7828</a>	
@root	1..1	SHALL		<a href="#">1198-10390</a>	2.16.840.1.113883.10.20.22.2.20
@extension	1..1	SHALL		<a href="#">1198-32536</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15474</a>	
@code	1..1	SHALL		<a href="#">1198-15475</a>	11348-0
@codeSystem	1..1	SHALL		<a href="#">1198-30831</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7830</a>	
text	1..1	SHALL		<a href="#">1198-7831</a>	
entry	0..*	MAY		<a href="#">1198-8791</a>	
observation	1..1	SHALL		<a href="#">1198-15476</a>	<a href="#">Problem Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7828) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.20" (CONF:1198-10390).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32536).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15474).
- a. This code **SHALL** contain exactly one [1..1] @code="11348-0" History of Past Illness (CONF:1198-15475).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30831).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7830).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7831).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-8791) such that it
- a. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15476).

**Figure 79: History of Past Illness Section (V3) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.20" extension="2015-08-01" />
  <!-- ** History of Past Illness Section ** -->
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="11348-0"
displayName="HISTORY OF PAST ILLNESS" />
  <title>PAST MEDICAL HISTORY</title>
  <text>
    <paragraph>Patient has had ..... </paragraph>
  </text>
  <entry>
    <!-- Sample With Problem Observation. -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- Problem Observation -->
      ...
      </observation>
    </entry>
  </section>

```

### 3.26 History of Present Illness Section

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4 (open) ]

**Table 117: History of Present Illness Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (required) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

The History of Present Illness section describes the history related to the reason for the encounter. It contains the historical details leading up to and pertaining to the patient's current complaint or reason for seeking medical care.

**Table 118: History of Present Illness Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4)					
templateId	1..1	SHALL		<a href="#">81-7848</a>	
@root	1..1	SHALL	UID	<a href="#">81-10458</a>	1.3.6.1.4.1.19376.1.5.3.1.3.4
code	1..1	SHALL		<a href="#">81-15477</a>	
@code	1..1	SHALL		<a href="#">81-15478</a>	10164-2
@codeSystem	1..1	SHALL		<a href="#">81-26478</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7850</a>	
text	1..1	SHALL		<a href="#">81-7851</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7848) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="1.3.6.1.4.1.19376.1.5.3.1.3.4"** (CONF:81-10458).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15477).
  - a. This code **SHALL** contain exactly one [1..1] **@code="10164-2"** (CONF:81-15478).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:81-26478).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7850).

4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7851).

**Figure 80: History of Present Illness Section Example**

```

<section>
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.4.2"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
    code="10164-2"
    displayName="HISTORY OF PRESENT ILLNESS"/>
  <title>HISTORY OF PRESENT ILLNESS</title>
  <text>
    <paragraph>This patient was only recently discharged for a recurrent
    GI bleed as described below.</paragraph>
    <paragraph>He presented to the ER today c/o a dark stool yesterday
    but a normal brown stool today. On exam he was hypotensive in the
    80s resolved after .... .... .... </paragraph>
    <paragraph>Lab at discharge: Glucose 112, BUN 16, creatinine 1.1,
    electrolytes normal. H. pylori antibody pending. Admission
    hematocrit 16%, discharge hematocrit 29%. WBC 7300, platelet
    count 256,000. Urinalysis normal. Urine culture: No growth. INR
    1.1, PTT 40.</paragraph>
    <paragraph>He was transfused with 6 units of packed red blood cells
    with .... .... ....</paragraph>
    <paragraph>GI evaluation 12 September: Colonoscopy showed single red
    clot in .... .... ....</paragraph>
  </text>
</section>

```

### 3.27 Hospital Consultations Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.42 (open) ]

**Table 119: Hospital Consultations Section Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	

The Hospital Consultations Section records consultations that occurred during the admission.

**Table 120: Hospital Consultations Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.42)					
templateId	1..1	SHALL		<a href="#">81-9915</a>	
@root	1..1	SHALL		<a href="#">81-10393</a>	2.16.840.1.113883.10.20.22.2.4 2
code	1..1	SHALL		<a href="#">81-15485</a>	
@code	1..1	SHALL		<a href="#">81-15486</a>	18841-7
@codeSystem	1..1	SHALL		<a href="#">81-26479</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-9917</a>	
text	1..1	SHALL		<a href="#">81-9918</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9915) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.42" (CONF:81-10393).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15485).
  - a. This code **SHALL** contain exactly one [1..1] @code="18841-7" Hospital Consultations Section (CONF:81-15486).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26479).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-9917).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-9918).

**Figure 81: Hospital Consultations Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.42"/>
  <code code="18841-7" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Hospital Consultations Section"/>
  <title>HOSPITAL CONSULTATIONS</title>
  <text>
    <list listType="ordered">
      <item>Gastroenterology</item>
      <item>Cardiology</item>
      <item>Dietitian</item>
    </list>
  </text>
</section>

```

### 3.28 Hospital Course Section

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.5 (open) ]

**Table 121: Hospital Course Section Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (required)	

The Hospital Course Section describes the sequence of events from admission to discharge in a hospital facility.

**Table 122: Hospital Course Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.5)					
templateId	1..1	SHALL		<a href="#">81-7852</a>	
@root	1..1	SHALL	UID	<a href="#">81-10459</a>	1.3.6.1.4.1.19376.1.5.3.1.3.5
code	1..1	SHALL		<a href="#">81-15487</a>	
@code	1..1	SHALL		<a href="#">81-15488</a>	8648-8
@codeSystem	1..1	SHALL		<a href="#">81-26480</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7854</a>	
text	1..1	SHALL		<a href="#">81-7855</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7852) such that it
  - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.3.5" (CONF:81-10459).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15487).
  - a. This code **SHALL** contain exactly one [1..1] @code="8648-8" Hospital Course (CONF:81-15488).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26480).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7854).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7855).

**Figure 82: Hospital Course Section Example**

```
<section>
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.5"/>
  <code code="8648-8"
    displayName="HOSPITAL COURSE"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <title>Hospital Course</title>
  <text> The patient was admitted and started on Lovenox and
    nitroglycerin paste. The patient had ... </text>
</section>
```

### 3.29 Hospital Discharge Instructions Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.41 (open)]

**Table 123: Hospital Discharge Instructions Section Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	

The Hospital Discharge Instructions Section records instructions at discharge.

**Table 124: Hospital Discharge Instructions Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.41)					
templateId	1..1	SHALL		<a href="#">81-9919</a>	
@root	1..1	SHALL		<a href="#">81-10395</a>	2.16.840.1.113883.10.20.22.2.41
code	1..1	SHALL		<a href="#">81-15357</a>	
@code	1..1	SHALL		<a href="#">81-15358</a>	8653-8
@codeSystem	1..1	SHALL		<a href="#">81-26481</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-9921</a>	
text	1..1	SHALL		<a href="#">81-9922</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9919) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.41" (CONF:81-10395).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15357).
  - a. This code **SHALL** contain exactly one [1..1] @code="8653-8" Hospital Discharge Instructions (CONF:81-15358).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26481).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-9921).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-9922).

**Figure 83: Hospital Discharge Instructions Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.41"/>
  <code code="8653-8" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="HOSPITAL DISCHARGE INSTRUCTIONS"/>
  <title>HOSPITAL DISCHARGE INSTRUCTIONS</title>
  <text>
    <list listType="ordered">
      <item>Take all of your prescription medication as directed.</item>
      <item>Make an appointment with your doctor to be seen two weeks from the date of your procedure.</item>
      <item>You may feel slightly bloated after the procedure because of air that was introduced during the examination.</item>
      <item>Call your physician if you notice:
        <br/>
        Bleeding or black stools.
        <br/>
        Abdominal pain.
        <br/>
        Fever or chills.
        <br/>
        Nausea or vomiting.
        <br/>
        Any unusual pain or problem.
        <br/>
        Pain or redness at the site where the intravenous needle was placed.
        <br/>
      </item>
      <item>Do not drink alcohol for 24 hours. Alcohol amplifies the effect of the sedatives given.</item>
      <item>Do not drive or operate machinery for 24 hours.</item>
    </list>
  </text>
</section>
```

### 3.30 Hospital Discharge Physical Section

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.26 (open) ]

**Table 125: Hospital Discharge Physical Section Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	

The Hospital Discharge Physical Section records a narrative description of the patient's physical findings.

**Table 126: Hospital Discharge Physical Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.26)					
templateId	1..1	SHALL		<a href="#">81-7971</a>	
@root	1..1	SHALL	UID	<a href="#">81-10460</a>	1.3.6.1.4.1.19376.1.5.3.1.3.26
code	1..1	SHALL		<a href="#">81-15363</a>	
@code	1..1	SHALL		<a href="#">81-15364</a>	10184-0
@codeSystem	1..1	SHALL		<a href="#">81-26482</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7973</a>	
text	1..1	SHALL		<a href="#">81-7974</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7971) such that it
  - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.3.26" (CONF:81-10460).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15363).
  - a. This code **SHALL** contain exactly one [1..1] @code="10184-0" Hospital Discharge Physical (CONF:81-15364).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26482).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7973).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7974).

**Figure 84: Hospital Discharge Physical Section Example**

```
<section>
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.26"/>
  <code code="10184-0"
    displayName="HOSPITAL DISCHARGE PHYSICAL"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <title>Hospital Discharge Physical</title>
  <text>GENERAL: Well-developed, slightly obese man.
    <br/>
    NECK: Supple, with no jugular venous distension.
    <br/>
    HEART: Intermittent tachycardia without murmurs or gallops.
    <br/>
    PULMONARY: Decreased breath sounds, but no clear-cut rales or wheezes.
    <br/>
    EXTREMITIES: Free of edema.
  </text>
</section>
```

### 3.31 Hospital Discharge Studies Summary Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.16 (open) ]

**Table 127: Hospital Discharge Studies Summary Section Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	

This section records the results of observations generated by laboratories, imaging procedures, and other procedures. The scope includes hematology, chemistry, serology, virology, toxicology, microbiology, plain x-ray, ultrasound, CT, MRI, angiography, echocardiography, nuclear medicine, pathology, and procedure observations. This section often includes notable results such as abnormal values or relevant trends, and could record all results for the period of time being documented.

Laboratory results are typically generated by laboratories providing analytic services in areas such as chemistry, hematology, serology, histology, cytology, anatomic pathology, microbiology, and/or virology. These observations are based on analysis of specimens obtained from the patient and submitted to the laboratory.

Imaging results are typically generated by a clinician reviewing the output of an imaging procedure, such as when a cardiologist reports the left ventricular ejection fraction based on the review of an echocardiogram.

Procedure results are typically generated by a clinician wanting to provide more granular information about component observations made during the performance of a procedure, such as when a gastroenterologist reports the size of a polyp observed during a colonoscopy.

Note that there are discrepancies between CCD and the lab domain model, such as the effectiveTime in specimen collection.

**Table 128: Hospital Discharge Studies Summary Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.16)					
templateId	1..1	SHALL		<a href="#">81-7910</a>	
@root	1..1	SHALL		<a href="#">81-10398</a>	2.16.840.1.113883.10.20.22.2.16
code	1..1	SHALL		<a href="#">81-15365</a>	
@code	1..1	SHALL		<a href="#">81-15366</a>	11493-4
@codeSystem	1..1	SHALL		<a href="#">81-26483</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7912</a>	
text	1..1	SHALL		<a href="#">81-7913</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7910) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.16" (CONF:81-10398).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15365).
  - a. This code **SHALL** contain exactly one [1..1] @code="11493-4" Hospital Discharge Studies Summary (CONF:81-15366).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26483).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7912).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7913).

**Figure 85: Hospital Discharge Studies Summary Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.16"/>
  <code code="11493-4"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="HOSPITAL DISCHARGE STUDIES SUMMARY"/>
  <title>Hospital Discharge Studies Summary</title>
  <text>
    ...
  </text>
</section>
```

### 3.32 Immunizations Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01  
(open)]

**Table 129: Immunizations Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Immunization Activity (V3)</a> (optional)

The Immunizations Section defines a patient's current immunization status and pertinent immunization history. The primary use case for the Immunization Section is to enable communication of a patient's immunization status. The section should include current immunization status, and may contain the entire immunization history that is relevant to the period of time being summarized.

**Table 130: Immunizations Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7965</a>	
@root	1..1	SHALL		<a href="#">1198-10399</a>	2.16.840.1.113883.10.20.22.2.2
@extension	1..1	SHALL		<a href="#">1198-32529</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15367</a>	
@code	1..1	SHALL		<a href="#">1198-15368</a>	11369-6
@codeSystem	1..1	SHALL		<a href="#">1198-32146</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7967</a>	
text	1..1	SHALL		<a href="#">1198-7968</a>	
entry	0..*	SHOULD		<a href="#">1198-7969</a>	
substanceAdministration	1..1	SHALL		<a href="#">1198-15494</a>	<a href="#">Immunization Activity (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.52:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7965) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.2" (CONF:1198-10399).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32529).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15367).
  - a. This code **SHALL** contain exactly one [1..1] @code="11369-6" Immunizations (CONF:1198-15368).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32146).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7967).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7968).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7969) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01) (CONF:1198-15494).

### 3.32.1 Immunizations Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.2.1:2015-08-01  
(open)]

**Table 131: Immunizations Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Immunization Activity (V3)</a> (required)

The Immunizations Section defines a patient's current immunization status and pertinent immunization history. The primary use case for the Immunization Section is to enable communication of a patient's immunization status. The section should include current immunization status, and may contain the entire immunization history that is relevant to the period of time being summarized.

**Table 132: Immunizations Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32833</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-9015</a>	
@root	1..1	SHALL		<a href="#">1198-10400</a>	2.16.840.1.113883.10.20.22.2.2.1
@extension	1..1	SHALL		<a href="#">1198-32530</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15369</a>	
@code	1..1	SHALL		<a href="#">1198-15370</a>	11369-6
@codeSystem	1..1	SHALL		<a href="#">1198-32147</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-9017</a>	
text	1..1	SHALL		<a href="#">1198-9018</a>	
entry	1..*	SHALL		<a href="#">1198-9019</a>	
substanceAdministration	1..1	SHALL		<a href="#">1198-15495</a>	<a href="#">Immunization Activity (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01)

1. Conforms to [Immunizations Section \(entries optional\) \(v3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.2:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32833).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-9015) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.2.1" (CONF:1198-10400).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32530).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15369).
  - a. This code **SHALL** contain exactly one [1..1] @code="11369-6" Immunizations (CONF:1198-15370).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32147).
5. **SHALL** contain exactly one [1..1] **title** (CONF:1198-9017).
6. **SHALL** contain exactly one [1..1] **text** (CONF:1198-9018).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-9019) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Activity \(v3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01) (CONF:1198-15495).

**Figure 86: Immunizations Section (entries required) (V3) Example**

```

<section>
    <templateId root="2.16.840.1.113883.10.20.22.2.1" extension="2015-08-01" />
    <!-- ***** Immunizations section template ***** -->
    <code code="11369-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="History of immunizations" />
    <title>Immunizations</title>
    <text>
        <table border="1" width="100%">
            <thead>
                <tr>
                    <th>Vaccine</th>
                    <th>Date</th>
                    <th>Status</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td>
                        <content ID="immun1" />Influenza virus vaccine, IM
                    </td>
                    <td>Nov 1999</td>
                    <td>Completed</td>
                </tr>
                <tr>
                    <td>
                        <content ID="immun2" />Influenza virus vaccine, IM
                    </td>
                    <td>Dec 1998</td>
                    <td>Completed</td>
                </tr>
                <tr>
                    <td>
                        <content ID="immun3" />
                        Pneumococcal polysaccharide vaccine, IM
                    </td>
                    <td>Dec 1998</td>
                    <td>Completed</td>
                </tr>
                <tr>
                    <td>
                        <content ID="immun4" />Tetanus and diphtheria toxoids, IM
                    </td>
                    <td>1997</td>
                    <td>Refused</td>
                </tr>
            </tbody>
        </table>
    </text>
    <entry typeCode="DRIV">
        <substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
            <templateId root="2.16.840.1.113883.10.20.22.4.52" />

```

```

<!-- **** Immunization activity template **** -->
...
</substanceAdministration>
</entry>
...
</section>

```

### 3.33 Implants Section (DEPRECATED)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.33:2014-06-09  
(open)]

THIS TEMPLATE HAS BEEN DEPRECATED IN C-CDA R2 AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for Deprecation:** Replaced by the Procedure Implants Section (2.16.840.1.113883.10.20.22.2.40)

**Table 133: Implants Section (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.33:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8042</a>	
@root	1..1	SHALL		<a href="#">1098-32608</a>	2.16.840.1.113883.10.20.22.2.33
@extension	1..1	SHALL		<a href="#">1098-32609</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15371</a>	
@code	1..1	SHALL		<a href="#">1098-15372</a>	55122-6
@codeSystem	1..1	SHALL		<a href="#">1098-26471</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8044</a>	
text	1..1	SHALL		<a href="#">1098-8045</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8042) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.33" (CONF:1098-32608).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32609).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15371).

- a. This code **SHALL** contain exactly one [1..1] @code="55122-6" Implants (CONF:1098-15372).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-26471).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8044).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8045).

### 3.34 Instructions Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09  
(open)]

**Table 134: Instructions Section (V2) Contexts**

Contained By:	Contains:
<a href="#">History and Physical (V3)</a> (optional) <a href="#">Progress Note (V3)</a> (optional)	<a href="#">Instruction (V2)</a> (required)

The Instructions Section records instructions given to a patient. List patient decision aids here.

**Table 135: Instructions Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.45:2014-06-09)					
@nullFlavor	0..1	MAY		<a href="#">1098-32835</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1098-10112</a>	
@root	1..1	SHALL		<a href="#">1098-31384</a>	2.16.840.1.113883.10.20.22.2.45
@extension	1..1	SHALL		<a href="#">1098-32599</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15375</a>	
@code	1..1	SHALL		<a href="#">1098-15376</a>	69730-0
@codeSystem	1..1	SHALL		<a href="#">1098-32148</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-10114</a>	
text	1..1	SHALL		<a href="#">1098-10115</a>	
entry	1..*	SHALL		<a href="#">1098-10116</a>	
act	1..1	SHALL		<a href="#">1098-31398</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **MAY** contain zero or one [0..1] **@nullFlavor="NI"** No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-32835).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-10112) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.2.45"** (CONF:1098-31384).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32599).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15375).
  - a. This code **SHALL** contain exactly one [1..1] **@code="69730-0"** Instructions (CONF:1098-15376).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32148).
4. **SHALL** contain exactly one [1..1] **title** (CONF:1098-10114).
5. **SHALL** contain exactly one [1..1] **text** (CONF:1098-10115).

If section/@nullFlavor is not present:

6. **SHALL** contain at least one [1..\*] **entry** (CONF:1098-10116) such that it

- a. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31398).

**Figure 87: Instructions Section (V2) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.21.2.45"
    extension="2014-06-09" />
  <code code="69730-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="INSTRUCTIONS" />
  <title>INSTRUCTIONS</title>
  <text>
    Patient may have low grade fever, mild joint pain and injection area
    tenderness
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20" />
      <!-- *** Instructions template *** -->
      ...
      </act>
    </entry>
  </section>

```

### 3.35 Interventions Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.21.2.3:2015-08-01  
(open)]

**Table 136: Interventions Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Care Plan (V2)</a> (optional)	<a href="#">Handoff Communication Participants</a> (optional)
<a href="#">Progress Note (V3)</a> (optional)	<a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)

This template represents Interventions. Interventions are actions taken to maximize the prospects of the goals of care for the patient, including the removal of barriers to success. Interventions can be planned, ordered, historical, etc.

Interventions include actions that may be ongoing (e.g., maintenance medications that the patient is taking, or monitoring the patient's health status or the status of an intervention).

Instructions are nested within interventions and may include self-care instructions. Instructions are information or directions to the patient and other providers including how to care for the individual's condition, what to do at home, when to call for help, any additional appointments, testing, and changes to the medication list or medication instructions, clinical guidelines and a summary of best practice.

Instructions are information or directions to the patient. Use the Instructions Section when instructions are included as part of a document that is not a Care Plan. Use the Interventions Section, containing the Intervention Act containing the Instruction entry, when instructions are part of a structured care plan.

**Table 137: Interventions Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.21.2.3:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8680</a>	
@root	1..1	SHALL	UID	<a href="#">1198-10461</a>	2.16.840.1.113883.10.20.21.2.3
@extension	1..1	SHALL		<a href="#">1198-32559</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15377</a>	
@code	1..1	SHALL		<a href="#">1198-15378</a>	62387-6
@codeSystem	1..1	SHALL		<a href="#">1198-30864</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8682</a>	
text	1..1	SHALL		<a href="#">1198-8683</a>	
entry	0..*	SHOULD		<a href="#">1198-30996</a>	
act	1..1	SHALL		<a href="#">1198-30997</a>	<a href="#">Intervention Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01</a>
entry	0..*	SHOULD		<a href="#">1198-32730</a>	
act	1..1	SHALL		<a href="#">1198-32731</a>	<a href="#">Planned Intervention Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01</a>
entry	0..*	MAY	Entry	<a href="#">1198-32402</a>	
act	1..1	SHALL		<a href="#">1198-32403</a>	<a href="#">Handoff Communication Participants (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.141</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8680) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.21.2.3" (CONF:1198-10461).

- b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32559).
- 2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15377).
  - a. This code **SHALL** contain exactly one [1..1] @code="62387-6" Interventions Provided (CONF:1198-15378).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30864).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8682).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-8683).
- 5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-30996) such that it
  - a. **SHALL** contain exactly one [1..1] **Intervention Act (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01) (CONF:1198-30997).
- 6. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-32730) such that it
  - a. **SHALL** contain exactly one [1..1] **Planned Intervention Act (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01) (CONF:1198-32731).
- 7. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-32402) such that it
  - a. **SHALL** contain exactly one [1..1] **Handoff Communication Participants** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141) (CONF:1198-32403).

**Figure 88: Interventions Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.21.2.3" extension="2015-08-01" />
  <code code="62387-6" displayName="Interventions Provided"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <title>Interventions Section</title>
  <text />
  <entry>
    <act />
  </entry>
</section>
```

### 3.36 Medical (General) History Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.39 (open) ]

**Table 138: Medical (General) History Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	

The Medical History Section describes all aspects of the medical history of the patient even if not pertinent to the current procedure, and may include chief complaint, past medical history, social history, family history, surgical or procedure history, medication history, and other

history information. The history may be limited to information pertinent to the current procedure or may be more comprehensive. The history may be reported as a collection of random clinical statements or it may be reported categorically. Categorical report formats may be divided into multiple subsections including Past Medical History, Social History.

**Table 139: Medical (General) History Section Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.39)					
templateId	1..1	SHALL		<a href="#">81-8160</a>	
@root	1..1	SHALL		<a href="#">81-10403</a>	2.16.840.1.113883.10.20.22.2.39
code	1..1	SHALL		<a href="#">81-15379</a>	
@code	1..1	SHALL		<a href="#">81-15380</a>	11329-0
@codeSystem	1..1	SHALL		<a href="#">81-26484</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8162</a>	
text	1..1	SHALL		<a href="#">81-8163</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8160) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.39" (CONF:81-10403).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15379).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="11329-0" Medical (General) History (CONF:81-15380).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26484).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8162).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8163).

### 3.37 Medical Equipment Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09  
(open)]

**Table 140: Medical Equipment Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Medical Equipment Organizer</a> (optional)

This section defines a patient's implanted and external health and medical devices and equipment. This section lists any pertinent durable medical equipment (DME) used to help maintain the patient's health status. All equipment relevant to the diagnosis, care, or treatment of a patient should be included.

Devices applied to, or placed in, the patient are represented with the Procedure Activity Procedure (V2) template. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity V2 template.

These devices may be grouped together within a Medical Equipment Organizer. The organizer would probably not be used with devices applied in or on the patient but rather to organize a group of medical supplies the patient has been supplied with.

**Table 141: Medical Equipment Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.23:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7944</a>	
@root	1..1	SHALL		<a href="#">1098-10404</a>	2.16.840.1.113883.10.20.22.2.23
@extension	1..1	SHALL		<a href="#">1098-32523</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15381</a>	
@code	1..1	SHALL		<a href="#">1098-15382</a>	46264-8
@codeSystem	1..1	SHALL		<a href="#">1098-30828</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7946</a>	
text	1..1	SHALL		<a href="#">1098-7947</a>	
entry	0..*	MAY		<a href="#">1098-7948</a>	
organizer	1..1	SHALL		<a href="#">1098-30351</a>	<a href="#">Medical Equipment Organizer (identifier: urn:oid:2.16.840.1.113883.10.2.22.4.135)</a>
entry	0..*	SHOULD		<a href="#">1098-31125</a>	
supply	1..1	SHALL		<a href="#">1098-31861</a>	<a href="#">Non-Medicinal Supply Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)</a>
entry	0..*	SHOULD		<a href="#">1098-31885</a>	
procedure	1..1	SHALL		<a href="#">1098-31886</a>	<a href="#">Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7944) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.23" (CONF:1098-10404).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32523).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15381).
  - a. This code **SHALL** contain exactly one [1..1] @code="46264-8" Medical Equipment (CONF:1098-15382).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30828).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7946).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7947).
- 5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-7948) such that it
  - a. **SHALL** contain exactly one [1..1] Medical Equipment Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.135) (CONF:1098-30351).
- 6. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1098-31125) such that it
  - a. **SHALL** contain exactly one [1..1] Non-Medicinal Supply Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09) (CONF:1098-31861).
- 7. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1098-31885) such that it
  - a. **SHALL** contain exactly one [1..1] Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-31886).

**Figure 89: Medical Equipment Section (V2) Example**

```

<component>
  <section>
    <!-- Medical equipment section -->
    <templateId root="2.16.840.1.113883.10.20.22.2.23" extension="2014-06-09" />
    <code code="46264-8" codeSystem="2.16.840.1.113883.6.1" />
    <title>MEDICAL EQUIPMENT</title>
    <text>
      <content styleCode="Bold">Medical Equipment</content>
      <list>
        <item>Implanted Devices: Cardiac Pacemaker July 3, 2013</item>
        <item>Implanted Devices: Upper GI Prosthesis, January 3, 2013</item>
        <item>Cane, February 2, 2003</item>
        <item>Biliary Stent, May 5, 2013</item>
      </list>
    </text>
    <entry>
      <organizer classCode="CLUSTER" moodCode="EVN">
        <!-- Medical Equipment Organizer template -->
        <templateId root="2.16.840.1.113883.10.20.22.4.135" />
        ...
      </organizer>
    </entry>
    <entry>
      <supply classCode="SPLY" moodCode="EVN">
        <!-- Non-medicinal supply activity V2 template ***** -->
        <templateId root="2.16.840.1.113883.10.20.22.4.50" extension="2014-06-09" />
        ...
      </supply>
    </entry>
    <entry>
      <procedure classCode="PROC" moodCode="EVN">
        <!-- Procedure Activity Procedure V2-->
        <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
        ...
      </procedure>
    </entry>
  </section>
</component>

```

### 3.38 Medications Administered Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09  
(open)]

**Table 142: Medications Administered Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional)

The Medications Administered Section usually resides inside a Procedure Note describing a procedure. This section defines medications and fluids administered during the procedure, its related encounter, or other procedure related activity excluding anesthetic medications. Anesthesia medications should be documented as described in the Anesthesia Section templateId 2.16.840.1.113883.10.20.22.2.25.

**Table 143: Medications Administered Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8152</a>	
@root	1..1	SHALL		<a href="#">1098-10405</a>	2.16.840.1.113883.10.20.22.2.38
@extension	1..1	SHALL		<a href="#">1098-32525</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15383</a>	
@code	1..1	SHALL		<a href="#">1098-15384</a>	29549-3
@codeSystem	1..1	SHALL		<a href="#">1098-30829</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8154</a>	
text	1..1	SHALL		<a href="#">1098-8155</a>	
entry	0..*	MAY		<a href="#">1098-8156</a>	
substanceAdministration	1..1	SHALL		<a href="#">1098-15499</a>	<a href="#">Medication Activity (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8152) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.38" (CONF:1098-10405).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32525).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15383).
  - a. This code **SHALL** contain exactly one [1..1] @code="29549-3" Medications Administered (CONF:1098-15384).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30829).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8154).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8155).

5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8156).

- a. The entry, if present, **SHALL** contain exactly one [1..1] **Medication Activity (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15499).

**Figure 90: Medications Administered Section (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.38" extension="2014-06-09" />
  <code code="29549-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="MEDICATIONS ADMINISTERED" />
  <title>MEDICATIONS ADMINISTERED</title>
  <text>
    <table border="1" width="100%">
      <thead>
        <tr>
          <th>Medication</th>
          <th>Directions</th>
          <th>Start Date</th>
          <th>Status</th>
          <th>Indications</th>
          <th>Fill Instructions</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>
            <content ID="MedAdministered_1">
              Proventil 0.09 MG/ACTUAT inhalant solution
            </content>
          </td>
          <td>0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN wheezing</td>
          <td>20070103</td>
          <td>Active</td>
          <td>Pneumonia (233604007 SNOMED CT)</td>
          <td>Generic Substitution Allowed</td>
        </tr>
      </tbody>
    </table>
  </text>
  <entry typeCode="DRIV">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
      <!-- ** MEDICATION ACTIVITY V2 ** -->
      ...
    </substanceAdministration>
  </entry>
</section>
```

### 3.39 Medications Section (entries optional) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09  
(open)]

**Table 144: Medications Section (entries optional) (V2) Contexts**

Contained By:	Contains:
<a href="#">History and Physical (V3)</a> (required) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional)

The Medications Section contains a patient's current medications and pertinent medication history. At a minimum, the currently active medications are listed. An entire medication history is an option. The section can describe a patient's prescription and dispense history and information about intended drug monitoring.

**Table 145: Medications Section (entries optional) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7791</a>	
@root	1..1	SHALL		<a href="#">1098-10432</a>	2.16.840.1.113883.10.20.22.2.1
@extension	1..1	SHALL		<a href="#">1098-32500</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15385</a>	
@code	1..1	SHALL		<a href="#">1098-15386</a>	10160-0
@codeSystem	1..1	SHALL		<a href="#">1098-30824</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7793</a>	
text	1..1	SHALL		<a href="#">1098-7794</a>	
entry	0..*	SHOULD		<a href="#">1098-7795</a>	
substanceAdministration	1..1	SHALL		<a href="#">1098-10076</a>	<a href="#">Medication Activity (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.16:2014-06-09)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7791) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.1" (CONF:1098-10432).

- b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32500).
- 2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15385).
  - a. This code **SHALL** contain exactly one [1..1] @code="10160-0" History of medication use (CONF:1098-15386).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30824).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7793).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7794).
- 5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1098-7795) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-10076).

### 3.39.1 Medications Section (entries required) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09  
(open)]

**Table 146: Medications Section (entries required) (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (required) <a href="#">Referral Note (V2)</a> (required)	<a href="#">Medication Activity (V2)</a> (required)

The Medications Section contains a patient's current medications and pertinent medication history. At a minimum, the currently active medications are listed. An entire medication history is an option. The section can describe a patient's prescription and dispense history and information about intended drug monitoring.

This section requires either an entry indicating the subject is not known to be on any medications or entries summarizing the subject's medications.

**Table 147: Medications Section (entries required) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09)					
@nullFlavor	0..1	MAY		<a href="#">1098-32845</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1098-7568</a>	
@root	1..1	SHALL		<a href="#">1098-10433</a>	2.16.840.1.113883.10.20.22.2.1.1
@extension	1..1	SHALL		<a href="#">1098-32499</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15387</a>	
@code	1..1	SHALL		<a href="#">1098-15388</a>	10160-0
@codeSystem	1..1	SHALL		<a href="#">1098-30825</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7570</a>	
text	1..1	SHALL		<a href="#">1098-7571</a>	
entry	1..*	SHALL		<a href="#">1098-7572</a>	
substanceAdministration	1..1	SHALL		<a href="#">1098-10077</a>	<a href="#">Medication Activity (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>

1. Conforms to [Medications Section \(entries optional\) \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.1.1:2014-06-09).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-32845).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7568) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.1.1" (CONF:1098-10433).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32499).
4. **SHALL** contain exactly one [1..1] code (CONF:1098-15387).
  - a. This code **SHALL** contain exactly one [1..1] @code="10160-0" History of medication use (CONF:1098-15388).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30825).
5. **SHALL** contain exactly one [1..1] title (CONF:1098-7570).
6. **SHALL** contain exactly one [1..1] text (CONF:1098-7571).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1098-7572) such that it
  - a. **SHALL** contain exactly one [1..1] **Medication Activity (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-10077).

**Figure 91: Medications Section (entries required) (V2) Example**

```
<section>
    <!--***MEDICATION SECTION (coded entries required) ** -->
    <templateId root="2.16.840.1.113883.10.20.22.2.1.1" extension="2014-06-09" />
    <!-- Medications Section (entries optional) -->
    <templateId root="2.16.840.1.113883.10.20.22.2.1" extension="2014-06-09" />

    <code code="10160-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HISTORY OF MEDICATION USE" />
    <title>MEDICATIONS</title>
    <text>
        Narrative Text
    </text>

    <entry>
        <substanceAdministration classCode="SBADM" moodCode="EVN">
            <!--***MEDICATION ACTIVITY V2 ** -->
            <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
            ....
        </substanceAdministration>
    </entry>
</section>
```

### 3.40 Mental Status Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01  
(open)]

**Table 148: Mental Status Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional)	<a href="#">Assessment Scale Observation</a> (optional)
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional)	<a href="#">Mental Status Organizer (V3)</a> (optional)
<a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Mental Status Observation (V3)</a> (optional)
<a href="#">Referral Note (V2)</a> (optional)	

The Mental Status Section contains observations and evaluations related to a patient's psychological and mental competency and deficits including, but not limited to any of the following types of information:

- Appearance (e.g., unusual grooming, clothing or body modifications)
- Attitude (e.g., cooperative, guarded, hostile)

- Behavior/psychomotor (e.g., abnormal movements, eye contact, tics)
- Mood and affect (e.g., anxious, angry, euphoric)
- Speech and Language (e.g., pressured speech, perseveration)
- Thought process (e.g., logic, coherence)
- Thought content (e.g., delusions, phobias)
- Perception (e.g., voices, hallucinations)
- Cognition (e.g., memory, alertness/consciousness, attention, orientation) – which were included in Cognitive Status Observation in earlier publications of C-CDA.
- Insight and judgment (e.g., understanding of condition, decision making)

**Table 149: Mental Status Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.56:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-28293</a>	
@root	1..1	SHALL		<a href="#">1198-28294</a>	2.16.840.1.113883.10.20.22.2.56
@extension	1..1	SHALL		<a href="#">1198-32793</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-28295</a>	
@code	1..1	SHALL		<a href="#">1198-28296</a>	10190-7
@codeSystem	1..1	SHALL		<a href="#">1198-30826</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-28297</a>	
text	1..1	SHALL		<a href="#">1198-28298</a>	
entry	0..*	MAY		<a href="#">1198-28301</a>	
organizer	1..1	SHALL		<a href="#">1198-28302</a>	<a href="#">Mental Status Organizer (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.75:2015-08-01)
entry	0..*	MAY		<a href="#">1198-28305</a>	
observation	1..1	SHALL		<a href="#">1198-28306</a>	<a href="#">Mental Status Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.74:2015-08-01)
entry	0..*	MAY		<a href="#">1198-28313</a>	
observation	1..1	SHALL		<a href="#">1198-28314</a>	<a href="#">Assessment Scale Observation</a> (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.69)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28293) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.56" (CONF:1198-28294).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32793).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-28295).
  - a. This code **SHALL** contain exactly one [1..1] @code="10190-7" Mental Status (CONF:1198-28296).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30826).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-28297).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-28298).
- 5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28301) such that it
  - a. **SHALL** contain exactly one [1..1] Mental Status Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.75:2015-08-01) (CONF:1198-28302).
- 6. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28305) such that it
  - a. **SHALL** contain exactly one [1..1] Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:1198-28306).
- 7. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28313) such that it
  - a. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1198-28314).

### **Figure 92: Mental Status Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.14" extension="2015-08-01" />
  <!-- Mental Status Section -->
  <code code="10190-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="MENTAL STATUS" />
  <title>MENTAL STATUS</title>
  <text>
    ...
  </text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Mental Status Observation template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.125" extension="2015-08-01" />
      ...
      ...
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Mental Status Observation V2 -->
      <templateId root="2.16.840.1.113883.10.20.22.4.74" extension="2015-08-01" />
      ...
      ...
    </observation>
  </entry>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- Mental Status Organizer V2-->
      <templateId root="2.16.840.1.113883.10.20.22.4.75" extension="2015-08-01" />
      <id root="a7bc1062-8649-42a0-833d-ekd65bd013c9" />
      ...
      ...
    </organizer>
  </entry>
</section>
```

### 3.41 Nutrition Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.57 (open) ]

**Table 150: Nutrition Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Progress Note (V3)</a> (optional)	<a href="#">Nutritional Status Observation</a> (optional)

The Nutrition Section represents diet and nutrition information including special diet requirements and restrictions (e.g., texture modified diet, liquids only, enteral feeding). It also represents the overall nutritional status of the patient and nutrition assessment findings.

**Table 151: Nutrition Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.57)					
templateId	1..1	SHALL		<a href="#">1098-30477</a>	
@root	1..1	SHALL	UID	<a href="#">1098-30478</a>	2.16.840.1.113883.10.20.22.2.57
code	1..1	SHALL		<a href="#">1098-30318</a>	
@code	1..1	SHALL		<a href="#">1098-30319</a>	61144-2
@codeSystem	1..1	SHALL		<a href="#">1098-30320</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-31042</a>	
text	1..1	SHALL		<a href="#">1098-31043</a>	
entry	0..*	SHOULD		<a href="#">1098-30321</a>	
observation	1..1	SHALL		<a href="#">1098-30322</a>	<a href="#">Nutritional Status Observation</a> (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.124)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30477) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.57" (CONF:1098-30478).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-30318).

- a. This code **SHALL** contain exactly one [1..1] @code="61144-2" Diet and nutrition (CONF:1098-30319).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30320).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-31042).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-31043).
- 5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1098-30321) such that it
  - a. **SHALL** contain exactly one [1..1] [Nutritional Status Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124) (CONF:1098-30322).

**Figure 93: Nutrition Section Example**

```

<section>
  <!-- Nutrition Section -->
  <templateId root="2.16.840.1.113883.10.20.22.2.57" />
  <code code="61144-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Diet and Nutrition" />
  <title>NUTRITION SECTION</title>
  <text>
    <paragraph>Nutritional Status: well nourished</paragraph>
    <paragraph>Nutrition Assessment: Dietary Requirements; low sodium diet, Dietary
Intake, high carbohydrate diet; BMI 25-29 overweight </paragraph>
    <paragraph>Nutritional Recommendations: BMI 22; Nutrition Education "Lean
Meats"</paragraph>
  </text>
  <entry>
    <!-- SHOULD HAVE Nutritional Status Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- contains NUTRITIONAL STATUS Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.124" />
      ...
      <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN">
          <!-- ** Nutritional Assessment observation** -->
          <templateId root="2.16.840.1.113883.10.20.22.4.138" />
          <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
          ...
        </observation>
      </entryRelationship>
    </observation>
  </entry>
</section>

```

## 3.42 Objective Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.21.2.1 (open) ]

**Table 152: Objective Section Contexts**

Contained By:	Contains:
<a href="#">Progress Note (V3)</a> (optional)	

The Objective Section contains data about the patient gathered through tests, measures, or observations that produce a quantified or categorized result. It includes important and relevant positive and negative test results, physical findings, review of systems, and other measurements and observations.

**Table 153: Objective Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.21.2.1)					
templateId	1..1	SHALL		<a href="#">81-7869</a>	
@root	1..1	SHALL	UID	<a href="#">81-10462</a>	2.16.840.1.113883.10.20.21.2.1
code	1..1	SHALL		<a href="#">81-15389</a>	
@code	1..1	SHALL		<a href="#">81-15390</a>	61149-1
@codeSystem	1..1	SHALL		<a href="#">81-26485</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7871</a>	
text	1..1	SHALL		<a href="#">81-7872</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7869) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.21.2.1" (CONF:81-10462).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15389).
  - a. This code **SHALL** contain exactly one [1..1] @code="61149-1" Objective (CONF:81-15390).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26485).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7871).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7872).

**Figure 94: Objective Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.21.2.1"/>
  <code code="61149-1 " codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="OBJECTIVE DATA "/>
  <title>OBJECTIVE DATA</title>
  <text>
    <list listType="ordered">
      <item>Chest: clear to ausc. No rales, normal breath sounds</item>
      <item>Heart: RR, PMI in normal location and no heave or evidence of
        cardiomegaly,normal heart sounds, no murmur or gallop</item>
    </list>
  </text>
</section>

```

### 3.43 Observer Context

[assignedAuthor: identifier urn:oid:2.16.840.1.113883.10.20.6.2.4 (open) ]

**Table 154: Observer Context Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	

The Observer Context is used to override the author specified in the CDA Header. It is valid as a direct child element of a section.

**Table 155: Observer Context Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
assignedAuthor (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.4)					
templateId	1..1	SHALL		<a href="#">81-9194</a>	
@root	1..1	SHALL		<a href="#">81-10536</a>	2.16.840.1.113883.10.20.6.2.4
id	1..*	SHALL		<a href="#">81-9196</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9194) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.4" (CONF:81-10536).

The id element contains the author's id or the DICOM device observer UID

2. **SHALL** contain at least one [1..\*] **id** (CONF:81-9196).
3. Either assignedPerson or assignedAuthoringDevice **SHALL** be present (CONF:81-9198).

**Figure 95: Observer Context Example**

```

<assignedAuthor>
  <templateId root="2.16.840.1.113883.10.20.6.2.4"/>
  <id extension="121008" root="2.16.840.1.113883.19.5"/>
  <assignedPerson>
    <name>
      <given>Richard</given>
      <family>Blitz</family>
      <suffix>MD</suffix>
    </name>
  </assignedPerson>
</assignedAuthor>

```

### 3.44 Operative Note Fluids Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.7.12 (open) ]

**Table 156: Operative Note Fluids Section Contexts**

Contained By:	Contains:
<a href="#">Operative Note (V3)</a> (optional)	

The Operative Note Fluids Section may be used to record fluids administered during the surgical procedure.

**Table 157: Operative Note Fluids Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.7.12)					
templateId	1..1	SHALL		<a href="#">81-8030</a>	
@root	1..1	SHALL	UID	<a href="#">81-10463</a>	2.16.840.1.113883.10.20.7.12
code	1..1	SHALL		<a href="#">81-15391</a>	
@code	1..1	SHALL		<a href="#">81-15392</a>	10216-0
@codeSystem	1..1	SHALL		<a href="#">81-26486</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8032</a>	
text	1..1	SHALL		<a href="#">81-8033</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8030) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.7.12" (CONF:81-10463).
- 2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15391).
  - a. This code **SHALL** contain exactly one [1..1] @code="10216-0" Operative Note Fluids (CONF:81-15392).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26486).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8032).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8033).
- 5. If the Operative Note Fluids section is present, there **SHALL** be a statement providing details of the fluids administered or **SHALL** explicitly state there were no fluids administered (CONF:81-8052).

**Figure 96: Operative Note Fluids Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.7.12"/>
  <code code="10216-0"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="OPERATIVE NOTE FLUIDS"/>
  <title>Operative Note Fluids</title>
  <text>250 ML Ringers Lactate</text>
</section>
```

### 3.45 Operative Note Surgical Procedure Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.7.14 (open) ]

**Table 158: Operative Note Surgical Procedure Section Contexts**

Contained By:	Contains:
<a href="#">Operative Note (V3)</a> (optional)	

The Operative Note Surgical Procedure Section can be used to restate the procedures performed if appropriate for an enterprise workflow. The procedure(s) performed associated with the Operative Note are formally modeled in the header using serviceEvent.

**Table 159: Operative Note Surgical Procedure Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.7.14)					
templateId	1..1	SHALL		<a href="#">81-8034</a>	
@root	1..1	SHALL	UID	<a href="#">81-10464</a>	2.16.840.1.113883.10.20.7.14
code	1..1	SHALL		<a href="#">81-15393</a>	
@code	1..1	SHALL		<a href="#">81-15394</a>	10223-6
@codeSystem	1..1	SHALL		<a href="#">81-26487</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8036</a>	
text	1..1	SHALL		<a href="#">81-8037</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8034) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.7.14"` (CONF:81-10464).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15393).
  - a. This code **SHALL** contain exactly one [1..1] `@code="10223-6"` Operative Note Surgical Procedure (CONF:81-15394).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26487).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8036).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8037).
5. If the surgical procedure section is present there **SHALL** be text indicating the procedure performed (CONF:81-8054).

**Figure 97: Operative Note Surgical Procedure Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.7.14"/>
  <code code="10223-6"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="OPERATIVE NOTE SURGICAL PROCEDURE"/>
  <title>Surgical Procedure</title>
  <text>Laparoscopic Appendectomy</text>
</section>
```

### 3.46 Payers Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.18:2015-08-01  
(open)]

**Table 160: Payers Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Coverage Activity (V3)</a> (optional)

The Payers Section contains data on the patient's payers, whether "third party" insurance, self-pay, other payer or guarantor, or some combination of payers, and is used to define which entity is the responsible fiduciary for the financial aspects of a patient's care.

Each unique instance of a payer and all the pertinent data needed to contact, bill to, and collect from that payer should be included. Authorization information that can be used to define pertinent referral, authorization tracking number, procedure, therapy, intervention, device, or similar authorizations for the patient or provider, or both should be included. At a minimum, the patient's pertinent current payment sources should be listed.

The sources of payment are represented as a Coverage Activity, which identifies all of the insurance policies or government or other programs that cover some or all of the patient's healthcare expenses. The policies or programs are sequenced by preference. The Coverage Activity has a sequence number that represents the preference order. Each policy or program identifies the covered party with respect to the payer, so that the identifiers can be recorded.

**Table 161: Payers Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.18:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7924</a>	
@root	1..1	SHALL		<a href="#">1198-10434</a>	2.16.840.1.113883.10.20.22.2.18
@extension	1..1	SHALL		<a href="#">1198-32597</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15395</a>	
@code	1..1	SHALL		<a href="#">1198-15396</a>	48768-6
@codeSystem	1..1	SHALL		<a href="#">1198-32149</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7926</a>	
text	1..1	SHALL		<a href="#">1198-7927</a>	
entry	0..*	SHOULD		<a href="#">1198-7959</a>	
act	1..1	SHALL		<a href="#">1198-15501</a>	<a href="#">Coverage Activity (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7924) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.18" (CONF:1198-10434).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32597).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15395).
  - a. This code **SHALL** contain exactly one [1..1] @code="48768-6" Payers (CONF:1198-15396).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32149).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7926).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7927).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7959) such that it
  - a. **SHALL** contain exactly one [1..1] [Coverage Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2015-08-01) (CONF:1198-15501).

**Figure 98: Payers Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.18" extension="2015-08-01" />
  <!-- ***** Payers section template ***** -->
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Payers" />
  <title>Insurance Providers</title>
  <text>
    . . .
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="DEF">
      <templateId root="2.16.840.1.113883.10.20.22.4.60" extension="2015-08-01" />
      <!-- **** Coverage entry template **** -->
    ...
    </act>
  </entry>
</section>
```

### 3.47 Physical Exam Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01  
(open)]

**Table 162: Physical Exam Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)

The section includes direct observations made by a clinician. The examination may include the use of simple instruments and may also describe simple maneuvers performed directly on the patient's body.

It also includes observations made by the examining clinician using only inspection, palpation, auscultation, and percussion. It does not include laboratory or imaging findings.

The exam may be limited to pertinent body systems based on the patient's chief complaint or it may include a comprehensive examination. The examination may be reported as a collection of random clinical statements or it may be reported categorically.

The Physical Exam Section may contain multiple nested subsections.

**Table 163: Physical Exam Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.2.10:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7806</a>	
@root	1..1	SHALL	UID	<a href="#">1198-10465</a>	2.16.840.1.113883.10.20.2.10
@extension	1..1	SHALL		<a href="#">1198-32587</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15397</a>	
@code	1..1	SHALL		<a href="#">1198-15398</a>	29545-1
@codeSystem	1..1	SHALL		<a href="#">1198-30931</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7808</a>	
text	1..1	SHALL		<a href="#">1198-7809</a>	
entry	0..*	MAY		<a href="#">1198-31926</a>	
observation	1..1	SHALL		<a href="#">1198-31927</a>	<a href="#">Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01)</a>
component	0..*	MAY		<a href="#">1198-32434</a>	
section	1..1	SHALL		<a href="#">1198-32435</a>	
code	1..1	SHALL		<a href="#">1198-32436</a>	urn:oid:2.16.840.1.113883.11.2 0.9.65 (Physical Exam Type)
title	1..1	SHALL		<a href="#">1198-32437</a>	
text	1..1	SHALL		<a href="#">1198-32438</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7806) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.2.10"** (CONF:1198-10465).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32587).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15397).
  - a. This code **SHALL** contain exactly one [1..1] **@code="29545-1"** Physical Findings (CONF:1198-15398).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30931).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7808).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7809).
- 5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-31926) such that it
  - a. **SHALL** contain exactly one [1..1] **Longitudinal Care Wound Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01) (CONF:1198-31927).
- 6. **MAY** contain zero or more [0..\*] **component** (CONF:1198-32434) such that it
  - a. **SHALL** contain exactly one [1..1] **section** (CONF:1198-32435).
    - i. This section **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet **Physical Exam Type** urn:oid:2.16.840.1.113883.11.20.9.65 **STATIC** (CONF:1198-32436).
    - ii. This section **SHALL** contain exactly one [1..1] **title** (CONF:1198-32437).
    - iii. This section **SHALL** contain exactly one [1..1] **text** (CONF:1198-32438).

**Table 164: Physical Exam Type**

Value Set: Physical Exam Type urn:oid:2.16.840.1.113883.11.20.9.65 Additional section types that may be used under the Physical Examination section. Value Set Source: <a href="http://www.search.loinc.org">http://www.search.loinc.org</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
10199-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Head, physical findings
10197-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Eye, physical findings
10195-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Ear, physical Findings
10203-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Nose, physical findings
11393-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Ears & nose & mouth & throat, physical findings
10201-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Mouth & throat & teeth, physical findings
51850-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Head & ears & eyes & nose & throat, physical findings
11411-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Neck, physical findings
10207-9	LOINC	urn:oid:2.16.840.1.113883.6.1	Thorax & lungs, physical findings
11391-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Chest, physical findings
...			

**Figure 99: Physical Exam Section (V3) Example**

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.2.10" extension="2015-08-01" />
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="29545-1"
displayName="Physical Findings" />
    <title>Physical Examination</title>
    <!--**10.4.1 Physical Exam at Transfer -->
    <text>
      <list listType="ordered">
        <item>Recurrent GI bleed of unknown etiology; hypotension perhaps
          secondary to this but as likely secondary to polypharmacy.</item>
        <item>Acute on chronic anemia secondary to #1.</item>
        <item>Azotemia, acute renal failure with volume loss secondary to
          #1.</item>
        <item>Hyperkalemia secondary to #3 and on ACE and K+ supplement.</item>
        <item>Other chronic diagnoses as noted above, currently stable.</item>
      </list>
    </text>
    ...
  </section>
</component>
```

### 3.48 Plan of Treatment Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09  
(open)]

**Table 165: Plan of Treatment Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional)	<a href="#">Goal Observation</a> (optional)
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional)	<a href="#">Nutrition Recommendation</a> (optional)
<a href="#">Discharge Summary (V3)</a> (required)	<a href="#">Planned Act (V2)</a> (optional)
<a href="#">History and Physical (V3)</a> (optional)	<a href="#">Planned Encounter (V2)</a> (optional)
<a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Planned Procedure (V2)</a> (optional)
<a href="#">Referral Note (V2)</a> (optional)	<a href="#">Planned Observation (V2)</a> (optional)
<a href="#">Progress Note (V3)</a> (optional)	<a href="#">Planned Supply (V2)</a> (optional)
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Planned Medication Activity (V2)</a> (optional)
<a href="#">Operative Note (V3)</a> (optional)	<a href="#">Handoff Communication Participants</a> (optional)
	<a href="#">Instruction (V2)</a> (optional)
	<a href="#">Planned Immunization Activity</a> (optional)

This section, formerly known as "Plan of Care", contains data that define pending orders, interventions, encounters, services, and procedures for the patient. It is limited to prospective, unfulfilled, or incomplete orders and requests only. These are indicated by the @moodCode of the entries within this section. All active, incomplete, or pending orders, appointments, referrals, procedures, services, or any other pending event of clinical significance to the current care of the patient should be listed.

Clinical reminders are placed here to provide prompts for disease prevention and management, patient safety, and healthcare quality improvements, including widely accepted performance measures.

The plan may also indicate that patient education will be provided.

When used in a document that includes a Goals Section, all the goals (whether narrative only, or structured Goal Observation entries) should be recorded in the Goals Section, rather than in the Plan of Treatment Section, to avoid confusion as to “which/whose goals should be in which section?”

When used in a document that does not include a Goals Section, the Plan of Treatment section may also contain information about care team members’ goals, including the patient’s values, beliefs, preferences, care expectations, and overarching care goals. Values may include the importance of quality of life over longevity. These values are taken into account when prioritizing all problems and their treatments. Beliefs may include comfort with dying or the refusal of blood transfusions because of the patient’s religious convictions. Preferences may include liquid medicines over tablets, or treatment via secure email instead of in person. Care expectations may range from being treated only by female clinicians, to expecting all calls to be returned within 24 hours. Overarching goals described in this section are not tied to a specific condition, problem, health concern, or intervention. Examples of overarching goals could be to minimize pain or dependence on others, or to walk a daughter down the aisle for her marriage.

**Table 166: Plan of Treatment Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7723</a>	
@root	1..1	SHALL		<a href="#">1098-10435</a>	2.16.840.1.113883.10.20.22.2.10
@extension	1..1	SHALL		<a href="#">1098-32501</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-14749</a>	
@code	1..1	SHALL		<a href="#">1098-14750</a>	18776-5
@codeSystem	1..1	SHALL		<a href="#">1098-30813</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-16986</a>	
text	1..1	SHALL		<a href="#">1098-7725</a>	
entry	0..*	MAY		<a href="#">1098-7726</a>	
observation	1..1	SHALL		<a href="#">1098-14751</a>	<a href="#">Planned Observation (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.44:2014-06-09)
entry	0..*	MAY		<a href="#">1098-8805</a>	
encounter	1..1	SHALL		<a href="#">1098-30472</a>	<a href="#">Planned Encounter (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.40:2014-06-09)
entry	0..*	MAY		<a href="#">1098-8807</a>	
act	1..1	SHALL		<a href="#">1098-30473</a>	<a href="#">Planned Act (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.39:2014-06-09)
entry	0..*	MAY		<a href="#">1098-8809</a>	
procedure	1..1	SHALL		<a href="#">1098-30474</a>	<a href="#">Planned Procedure (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.41:2014-06-09)
entry	0..*	MAY		<a href="#">1098-8811</a>	
substanceAdministration	1..1	SHALL		<a href="#">1098-30475</a>	<a href="#">Planned Medication Activity (V2)</a> (identifier:

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09</a>
entry	0..*	MAY	<a href="#">1098-8813</a>	
supply	1..1	SHALL	<a href="#">1098-30476</a>	<a href="#">Planned Supply (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09)</a>
entry	0..*	MAY	<a href="#">1098-14695</a>	
act	1..1	SHALL	<a href="#">1098-31397</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entry	0..*	MAY	<a href="#">1098-29621</a>	
act	1..1	SHALL	<a href="#">1098-30868</a>	<a href="#">Handoff Communication Participants (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141)</a>
entry	0..*	MAY	<a href="#">1098-31841</a>	
act	1..1	SHALL	<a href="#">1098-31864</a>	<a href="#">Nutrition Recommendation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130)</a>
entry	0..*	MAY	<a href="#">1098-32353</a>	
substanceAdministration	1..1	SHALL	<a href="#">1098-32354</a>	<a href="#">Planned Immunization Activity (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120)</a>
entry	0..*	MAY	<a href="#">1098-32887</a>	
observation	1..1	SHALL	<a href="#">1098-32888</a>	<a href="#">Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7723) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.10" (CONF:1098-10435).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32501).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-14749).
  - a. This code **SHALL** contain exactly one [1..1] @code="18776-5" Plan of Treatment (CONF:1098-14750).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30813).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-16986).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7725).

5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-7726) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09) (CONF:1098-14751).
6. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8805) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Encounter \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09) (CONF:1098-30472).
7. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8807) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09) (CONF:1098-30473).
8. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8809) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09) (CONF:1098-30474).
9. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8811) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09) (CONF:1098-30475).
10. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8813) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Supply \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09) (CONF:1098-30476).
11. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-14695) such that it
  - a. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31397).
12. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-29621) such that it
  - a. **SHALL** contain exactly one [1..1] [Handoff Communication Participants](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141) (CONF:1098-30868).
13. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-31841) such that it
  - a. **SHALL** contain exactly one [1..1] [Nutrition Recommendation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130) (CONF:1098-31864).
14. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-32353) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Immunization Activity](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120) (CONF:1098-32354).
15. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-32887) such that it
  - a. **SHALL** contain exactly one [1..1] [Goal Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:1098-32888).

**Figure 100: Plan of Treatment Section (V2) Example**

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.22.2.10" extension="2014-06-09" />
    <!-- **** Plan of Treatment Section V2 template **** -->
    <code code="18776-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Treatment plan" />
    <title>TREATMENT PLAN</title>
    <text>
      ...
    </text>
    <entry>
      <act classCode="ACT" moodCode="EVN">
        <!-- Handoff Communication template -->
        <templateId root="2.16.840.1.113883.10.20.22.4.141" />
        ...
      </act>
    </entry>
    <entry>
      <encounter moodCode="INT" classCode="ENC">
        <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"
/>
        <!-- Plan Activity Encounter V2 template -->
        ...
      </encounter>
    </entry>
  </section>
</component>
```

### 3.49 Planned Procedure Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.30:2014-06-09  
(open)]

**Table 167: Planned Procedure Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Planned Procedure (V2)</a> (optional)
<a href="#">Operative Note (V3)</a> (optional)	

This section contains the procedure(s) that a clinician planned based on the preoperative assessment.

**Table 168: Planned Procedure Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.30:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8082</a>	
@root	1..1	SHALL		<a href="#">1098-10436</a>	2.16.840.1.113883.10.20.22.2.30
@extension	1..1	SHALL		<a href="#">1098-32590</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15399</a>	
@code	1..1	SHALL		<a href="#">1098-15400</a>	59772-4
@codeSystem	1..1	SHALL		<a href="#">1098-32151</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8084</a>	
text	1..1	SHALL		<a href="#">1098-8085</a>	
entry	0..*	MAY		<a href="#">1098-8744</a>	
procedure	1..1	SHALL		<a href="#">1098-15502</a>	<a href="#">Planned Procedure (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.41:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8082) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.30" (CONF:1098-10436).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32590).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15399).
  - a. This code **SHALL** contain exactly one [1..1] @code="59772-4" Planned Procedure (CONF:1098-15400).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32151).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8084).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8085).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8744) such that it
  - a. **SHALL** contain exactly one [1..1] [Planned Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09) (CONF:1098-15502).

**Figure 101: Planned Procedure Section (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.30" extension="2014-06-09" />
  <code code="59772-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="Planned Procedure" />
  <title>Planned Procedure</title>
  <text>
    ...
  </text>
  <entry>
    <procedure moodCode="RQO" classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />
      <!-- ** Planned Procedure ** -->
      ...
    </procedure>
  </entry>
</section>
```

### 3.50 Postoperative Diagnosis Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.35 (open) ]

**Table 169: Postoperative Diagnosis Section Contexts**

Contained By:	Contains:
<a href="#">Operative Note (V3)</a> (required)	

The Postoperative Diagnosis Section records the diagnosis or diagnoses discovered or confirmed during the surgery. Often it is the same as the preoperative diagnosis.

**Table 170: Postoperative Diagnosis Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.35)					
templateId	1..1	SHALL		<a href="#">81-8101</a>	
@root	1..1	SHALL		<a href="#">81-10437</a>	2.16.840.1.113883.10.20.22.2.35
code	1..1	SHALL		<a href="#">81-15401</a>	
@code	1..1	SHALL		<a href="#">81-15402</a>	10218-6
@codeSystem	1..1	SHALL		<a href="#">81-26488</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8103</a>	
text	1..1	SHALL		<a href="#">81-8104</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8101) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.35" (CONF:81-10437).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15401).
  - a. This code **SHALL** contain exactly one [1..1] @code="10218-6" Postoperative Diagnosis (CONF:81-15402).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26488).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8103).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8104).

**Figure 102: Postoperative Diagnosis Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.35"/>
  <code code="10218-6"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="POSTOPERATIVE DIAGNOSIS"/>
  <title>Postoperative Diagnosis</title>
  <text>Appendicitis with periappendiceal abscess</text>
</section>
```

### 3.51 Postprocedure Diagnosis Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.36:2015-08-01  
(open)]

**Table 171: Postprocedure Diagnosis Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (required)	<a href="#">Postprocedure Diagnosis (V3)</a> (optional)

The Postprocedure Diagnosis Section records the diagnosis or diagnoses discovered or confirmed during the procedure. Often it is the same as the preprocedure diagnosis or indication.

**Table 172: Postprocedure Diagnosis Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.36:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8167</a>	
@root	1..1	SHALL		<a href="#">1198-10438</a>	2.16.840.1.113883.10.20.22.2.36
@extension	1..1	SHALL		<a href="#">1198-32550</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15403</a>	
@code	1..1	SHALL		<a href="#">1198-15404</a>	59769-0
@codeSystem	1..1	SHALL		<a href="#">1198-30862</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8170</a>	
text	1..1	SHALL		<a href="#">1198-8171</a>	
entry	0..1	SHOULD		<a href="#">1198-8762</a>	
act	1..1	SHALL		<a href="#">1198-15503</a>	<a href="#">Postprocedure Diagnosis (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8167) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.36" (CONF:1198-10438).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32550).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15403).

- a. This code **SHALL** contain exactly one [1..1] @code="59769-0" Postprocedure Diagnosis (CONF:1198-15404).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30862).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8170).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-8171).
- 5. **SHOULD** contain zero or one [0..1] **entry** (CONF:1198-8762) such that it
  - a. **SHALL** contain exactly one [1..1] [Postprocedure Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01) (CONF:1198-15503).

**Figure 103: Postprocedure Diagnosis Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.36" extension="2015-08-01" />
  <code code="59769-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="POSTPROCEDURE DIAGNOSIS" />
  <title>Postprocedure Diagnosis</title>
  <text>
    ...
  </text>
  <entry>
    <act moodCode="EVN" classCode="ACT">
      <templateId root="2.16.840.1.113883.10.20.22.4.51" extension="2014-06-09" />
      <!-- ** Postprocedure Diagnosis ** -->
      ...
      </act>
    </entry>
  </section>
```

### 3.52 Preoperative Diagnosis Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.34:2015-08-01  
(open)]

**Table 173: Preoperative Diagnosis Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Operative Note (V3)</a> (required)	<a href="#">Preoperative Diagnosis (V3)</a> (optional)

The Preoperative Diagnosis Section records the surgical diagnoses assigned to the patient before the surgical procedure which are the reason for the surgery. The preoperative diagnosis is, in the surgeon's opinion, the diagnosis that will be confirmed during surgery.

**Table 174: Preoperative Diagnosis Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.34:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8097</a>	
@root	1..1	SHALL		<a href="#">1198-10439</a>	2.16.840.1.113883.10.20.22.2.34
@extension	1..1	SHALL		<a href="#">1198-32551</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15405</a>	
@code	1..1	SHALL		<a href="#">1198-15406</a>	10219-4
@codeSystem	1..1	SHALL		<a href="#">1198-30863</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8099</a>	
text	1..1	SHALL		<a href="#">1198-8100</a>	
entry	0..1	SHOULD		<a href="#">1198-10096</a>	
act	1..1	SHALL		<a href="#">1198-15504</a>	<a href="#">Preoperative Diagnosis (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.65:2015-08-01</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8097) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.34" (CONF:1198-10439).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32551).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15405).
  - a. This code **SHALL** contain exactly one [1..1] @code="10219-4" Preoperative Diagnosis (CONF:1198-15406).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30863).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8099).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-8100).
5. **SHOULD** contain zero or one [0..1] **entry** (CONF:1198-10096) such that it
  - a. **SHALL** contain exactly one [1..1] [Preoperative Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01) (CONF:1198-15504).

**Figure 104: Preoperative Diagnosis Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.34" extension="2015-08-01" />
  <code code="10219-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName=" PREOPERATIVE DIAGNOSIS" />
  <title>Preoperative Diagnosis</title>
  <text>Appendicitis</text>
  <entry>
    <act moodCode="EVN" classCode="ACT">
      <templateId root="2.16.840.1.113883.10.20.22.4.65" extension="2015-08-01" />
      <!-- ** Preoperative Diagnosis ** -->
      ...
    </act>
  </entry>
</section>
```

### 3.53 Problem Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01  
(open)]

**Table 175: Problem Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Progress Note (V3)</a> (optional)	<a href="#">Health Status Observation (V2)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional)

This section lists and describes all relevant clinical problems at the time the document is generated. At a minimum, all pertinent current and historical problems should be listed. Overall health status may be represented in this section.

**Table 176: Problem Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7877</a>	
@root	1..1	SHALL		<a href="#">1198-10440</a>	2.16.840.1.113883.10.20.22.2.5
@extension	1..1	SHALL		<a href="#">1198-32511</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15407</a>	
@code	1..1	SHALL		<a href="#">1198-15408</a>	11450-4
@codeSystem	1..1	SHALL		<a href="#">1198-31141</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7879</a>	
text	1..1	SHALL		<a href="#">1198-7880</a>	
entry	0..*	SHOULD		<a href="#">1198-7881</a>	
act	1..1	SHALL		<a href="#">1198-15505</a>	<a href="#">Problem Concern Act (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.3:2015-08-01)
entry	0..1	MAY		<a href="#">1198-30481</a>	
observation	1..1	SHALL		<a href="#">1198-30482</a>	<a href="#">Health Status Observation (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.5:2014-06-09)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7877) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.5" (CONF:1198-10440).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32511).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15407).
  - a. This code **SHALL** contain exactly one [1..1] @code="11450-4" Problem List (CONF:1198-15408).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31141).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7879).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7880).

5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7881) such that it
  - a. **SHALL** contain exactly one [1..1] [Problem Concern Act \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) (CONF:1198-15505).
6. **MAY** contain zero or one [0..1] **entry** (CONF:1198-30481) such that it
  - a. **SHALL** contain exactly one [1..1] [Health Status Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09) (CONF:1198-30482).

### 3.53.1 Problem Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01  
(open) ]

**Table 177: Problem Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (required)	<a href="#">Health Status Observation (V2)</a> (optional)
<a href="#">Continuity of Care Document (CCD) (V3)</a> (required)	<a href="#">Problem Concern Act (V3)</a> (required)
<a href="#">Transfer Summary (V2)</a> (required)	
<a href="#">Referral Note (V2)</a> (required)	

This section lists and describes all relevant clinical problems at the time the document is generated. At a minimum, all pertinent current and historical problems should be listed. Overall health status may be represented in this section.

**Table 178: Problem Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32864</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-9179</a>	
@root	1..1	SHALL		<a href="#">1198-10441</a>	2.16.840.1.113883.10.20.22.2.5.1
@extension	1..1	SHALL		<a href="#">1198-32510</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15409</a>	
@code	1..1	SHALL		<a href="#">1198-15410</a>	11450-4
@codeSystem	1..1	SHALL		<a href="#">1198-31142</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-9181</a>	
text	1..1	SHALL		<a href="#">1198-9182</a>	
entry	1..*	SHALL		<a href="#">1198-9183</a>	
act	1..1	SHALL		<a href="#">1198-15506</a>	<a href="#">Problem Concern Act (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01)
entry	0..1	MAY		<a href="#">1198-30479</a>	
observation	1..1	SHALL		<a href="#">1198-30480</a>	<a href="#">Health Status Observation (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09)

1. Conforms to [Problem Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32864).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-9179) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.5.1" (CONF:1198-10441).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32510).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-15409).

- a. This code **SHALL** contain exactly one [1..1] @code="11450-4" Problem List (CONF:1198-15410).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31142).
- 5. **SHALL** contain exactly one [1..1] **title** (CONF:1198-9181).
- 6. **SHALL** contain exactly one [1..1] **text** (CONF:1198-9182).

If section/@nullFlavor is not present:

- 7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-9183) such that it
  - a. **SHALL** contain exactly one [1..1] **Problem Concern Act (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) (CONF:1198-15506).
- 8. **MAY** contain zero or one [0..1] **entry** (CONF:1198-30479) such that it
  - a. **SHALL** contain exactly one [1..1] **Health Status Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09) (CONF:1198-30480).

**Figure 105: Problem Section (entries required) (V3) Example**

```
<section>
  <!-- [C-CDA R2.1] Problem Section (entries optional) -->
  <templateId root="2.16.840.1.113883.10.20.22.2.5" extension="2015-08-01" />
  <!-- [C-CDA R2.1] Problem Section (entries required) -->
  <templateId root="2.16.840.1.113883.10.20.22.2.5.1" extension="2015-08-01" />
  <code code="11450-4"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="PROBLEM LIST" />
  <title>PROBLEMS</title>
  <text>
    <list listType="ordered">
      <item>Pneumonia: Resolved in March 1998</item>
      <item>...</item>
    </list>
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <!-- [C-CDA R2.1] Problem Concern Act (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01" />
      ...
      </act>
    </entry>
  </section>
```

**Figure 106: No Known Problems Section Example**

```

<section>
  <!-- [C-CDA R2.1] Problem Section (entries optional) -->
  <templateId root="2.16.840.1.113883.10.20.22.2.5" extension="2015-08-01" />
  <!-- [C-CDA R2.1] Problem Section (entries required) -->
  <templateId root="2.16.840.1.113883.10.20.22.2.5.1" extension="2015-08-01" />
  <code code="11450-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Problem List" />
  <title>PROBLEMS</title>
  <text ID="Concern_1">
    Problem Concern:
    <br />
    Concern Tracker Start Date: 06/07/2013 16:05:06
    <br />
    Concern Tracker End Date:
    <br />
    Concern Status: Active
    <br />
    <content ID="problems1">No known
      <content ID="problemType1">problems.</content>
    </content>
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <!-- [C-CDA R2.1] Problem Concern Act (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01" />
      <id root="36e3e930-7b14-11db-9fe1-0800200c9a66" />
      <!-- SDWG supports 48765-2 or CONC in the code element -->
      <code code="CONC" codeSystem="2.16.840.1.113883.5.6" />
      <text>
        <reference value="#Concern_1" />
      </text>
      <statusCode code="active" />
      <!-- The concern is not active, in terms of there being an active condition
          to be managed.-->
      <effectiveTime>
        <low value="20130607160506" />
        <!-- Time at which THIS "concern" began being tracked.-->
      </effectiveTime>
      <!-- status is active so high is not applicable. If high is present it
          should have nullFlavor of NA-->
      <!-- Optional Author Element-->
      <author>
        <!-- [C-CDA R2] Author Participation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        <time value="20130607160506" />
        <assignedAuthor>
          ...
        </assignedAuthor>
      </author>
      <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN" negationInd="true">
          <!-- Model of Meaning for No Problems -->
          <!-- This is more consistent with how we did no known allergies.
              The use of negationInd corresponds with the newer
              Observation.ValueNegationInd.

```

```

The negationInd = true negates the value element. -->
<!-- [C-CDA R2.1] Problem Observation (V3) -->
<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
<id root="4adc1021-7b14-11db-9fe1-0800200c9a67" />
<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
<text>
  <reference value="#problems1" />
</text>
<statusCode code="completed" />
<effectiveTime>
  <low value="20130607160506" />
</effectiveTime>
<!-- The time when this was biologically relevant ie True
for the patient. As a minimum time interval over which
this is true, populate the effectiveTime/low with the
current time.
It would be equally valid to have a longer range of
time over which this statement was represented as
being true. As a maximum, you would never indicate
an effectiveTime/high that was greater than the
current point in time. This idea assumes that the
value element could come from the Problem value set,
or when negationInd was true, is could also come from
the ProblemType value set (and code would be ASSERTION). -->
<value xsi:type="CD"
  code="55607006"
  displayName="Problem"
  codeSystem="2.16.840.1.113883.6.96"
  codeSystemName="SNOMED CT">
<originalText>
  <reference value="#problemType1" />
</originalText>
</value>
</observation>
</entryRelationship>
</act>
</entry>
</section>

```

### 3.54 Procedure Description Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.27 (open)]

**Table 179: Procedure Description Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (required)	
<a href="#">Operative Note (V3)</a> (required)	

The Procedure Description section records the particulars of the procedure and may include procedure site preparation, surgical site preparation, pertinent details related to sedation/anesthesia, pertinent details related to measurements and markings, procedure times, medications administered, estimated blood loss, specimens removed, implants,

instrumentation, sponge counts, tissue manipulation, wound closure, sutures used, vital signs and other monitoring data. Local practice often identifies the level and type of detail required based on the procedure or specialty.

**Table 180: Procedure Description Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.27)					
templateId	1..1	SHALL		<a href="#">81-8062</a>	
@root	1..1	SHALL		<a href="#">81-10442</a>	2.16.840.1.113883.10.20.22.2.27
code	1..1	SHALL		<a href="#">81-15411</a>	
@code	1..1	SHALL		<a href="#">81-15412</a>	29554-3
@codeSystem	1..1	SHALL		<a href="#">81-26489</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8064</a>	
text	1..1	SHALL		<a href="#">81-8065</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8062) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.27" (CONF:81-10442).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15411).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="29554-3" Procedure Description (CONF:81-15412).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26489).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8064).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8065).

**Figure 107: Procedure Description Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.27"/>
  <code code="29554-3"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="PROCEDURE DESCRIPTION"/>
  <title>Procedure Description</title>
  <text>The patient was taken to the endoscopy suite where ... </text>
</section>
```

### 3.55 Procedure Disposition Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.18.2.12 (open) ]

**Table 181: Procedure Disposition Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional) <a href="#">Operative Note (V3)</a> (optional)	

The Procedure Disposition Section records the status and condition of the patient at the completion of the procedure or surgery. It often also states where the patient was transferred to for the next level of care.

**Table 182: Procedure Disposition Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.18.2.12)					
templateId	1..1	SHALL		<a href="#">81-8070</a>	
@root	1..1	SHALL	UID	<a href="#">81-10466</a>	2.16.840.1.113883.10.20.18.2.12
code	1..1	SHALL		<a href="#">81-15413</a>	
@code	1..1	SHALL		<a href="#">81-15414</a>	59775-7
@codeSystem	1..1	SHALL		<a href="#">81-26490</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8072</a>	
text	1..1	SHALL		<a href="#">81-8073</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8070) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.18.2.12" (CONF:81-10466).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15413).
  - a. This code **SHALL** contain exactly one [1..1] @code="59775-7" Procedure Disposition (CONF:81-15414).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26490).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8072).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8073).

**Figure 108: Procedure Disposition Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.18.2.12"/>
  <code code="59775-7" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="PROCEDURE DISPOSITION"/>
  <title>PROCEDURE DISPOSITION</title>
  <text>The patient was taken to the Endoscopy Recovery Unit in stable
    condition.</text>
</section>

```

### 3.56 Procedure Estimated Blood Loss Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.18.2.9 (open) ]

**Table 183: Procedure Estimated Blood Loss Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	
<a href="#">Operative Note (V3)</a> (required)	

The Procedure Estimated Blood Loss Section may be a subsection of another section such as the Procedure Description Section. The Procedure Estimated Blood Loss Section records the approximate amount of blood that the patient lost during the procedure or surgery. It may be an accurate quantitative amount, e.g., 250 milliliters, or it may be descriptive, e.g., “minimal” or “none”.

**Table 184: Procedure Estimated Blood Loss Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.18.2.9)					
templateId	1..1	SHALL		<a href="#">81-8074</a>	
@root	1..1	SHALL	UID	<a href="#">81-10467</a>	2.16.840.1.113883.10.20.18.2.9
code	1..1	SHALL		<a href="#">81-15415</a>	
@code	1..1	SHALL		<a href="#">81-15416</a>	59770-8
@codeSystem	1..1	SHALL		<a href="#">81-26491</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8076</a>	
text	1..1	SHALL		<a href="#">81-8077</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8074) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.18.2.9" (CONF:81-10467).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15415).
  - a. This code **SHALL** contain exactly one [1..1] @code="59770-8" Procedure Estimated Blood Loss (CONF:81-15416).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26491).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8076).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8077).
5. The Estimated Blood Loss section **SHALL** include a statement providing an estimate of the amount of blood lost during the procedure, even if the estimate is text, such as "minimal" or "none" (CONF:81-8741).

**Figure 109: Procedure Estimated Blood Loss Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.18.2.9"/>
  <code code="59770-8" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="PROCEDURE ESTIMATED BLOOD LOSS"/>
  <title>Procedure Estimated Blood Loss</title>
  <text>Minimal</text>
</section>
```

### 3.57 Procedure Findings Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01  
(open)]

**Table 185: Procedure Findings Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (optional)
<a href="#">Operative Note (V3)</a> (required)	

The Procedure Findings Section records clinically significant observations confirmed or discovered during a procedure or surgery.

**Table 186: Procedure Findings Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-8078</a>	
@root	1..1	SHALL		<a href="#">1198-10443</a>	2.16.840.1.113883.10.20.22.2.28
@extension	1..1	SHALL		<a href="#">1198-32537</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15417</a>	
@code	1..1	SHALL		<a href="#">1198-15418</a>	59776-5
@codeSystem	1..1	SHALL		<a href="#">1198-30859</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8080</a>	
text	1..1	SHALL		<a href="#">1198-8081</a>	
entry	0..*	MAY		<a href="#">1198-8090</a>	
observation	1..1	SHALL		<a href="#">1198-15507</a>	<a href="#">Problem Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8078) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.28" (CONF:1198-10443).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32537).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15417).
  - a. This code **SHALL** contain exactly one [1..1] @code="59776-5" Procedure Findings (CONF:1198-15418).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30859).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8080).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-8081).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-8090) such that it
  - a. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15507).

**Figure 110: Procedure Findings Section (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.28" extension="2015-08-01" />
  <code code="59776-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="PROCEDURE FINDINGS" />
  <title>Procedure Findings</title>
  <text>A 6 mm sessile polyp was found in the ascending colon and removed by snare, no
cautery. Bleeding was controlled. Moderate diverticulosis and hemorrhoids were
incidentally noted.</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2014-06-09" />
      <!-- Problem Observation -->
      ...
    </observation>
  </entry>
</section>
```

### 3.58 Procedure Implants Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.40 (open) ]

**Table 187: Procedure Implants Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	
<a href="#">Operative Note (V3)</a> (optional)	

The Procedure Implants Section records any materials placed during the procedure including stents, tubes, and drains.

**Table 188: Procedure Implants Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.40)					
templateId	1..1	SHALL		<a href="#">81-8178</a>	
@root	1..1	SHALL		<a href="#">81-10444</a>	2.16.840.1.113883.10.20.22.2.40
code	1..1	SHALL		<a href="#">81-15373</a>	
@code	1..1	SHALL		<a href="#">81-15374</a>	59771-6
@codeSystem	1..1	SHALL		<a href="#">81-26492</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8180</a>	
text	1..1	SHALL		<a href="#">81-8181</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8178) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.40" (CONF:81-10444).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15373).
  - a. This code **SHALL** contain exactly one [1..1] @code="59771-6" Procedure Implants (CONF:81-15374).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26492).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8180).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8181).
5. The Procedure Implants section **SHALL** include a statement providing details of the implants placed, or assert no implants were placed (CONF:81-8769).

**Figure 111: Procedure Implants Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.40"/>
  <code code="59771-6" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="PROCEDURE IMPLANTS"/>
  <title>Procedure Implants</title>
  <text>No implants were placed.</text>
</section>
```

### 3.59 Procedure Indications Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09  
(open)]

**Table 189: Procedure Indications Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (required) <a href="#">Operative Note (V3)</a> (optional)	<a href="#">Indication (V2)</a> (optional)

This section contains the reason(s) for the procedure or surgery. This section may include the preprocedure diagnoses as well as symptoms contributing to the reason for the procedure.

**Table 190: Procedure Indications Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8058</a>	
@root	1..1	SHALL		<a href="#">1098-10445</a>	2.16.840.1.113883.10.20.22.2.29
@extension	1..1	SHALL		<a href="#">1098-32572</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15419</a>	
@code	1..1	SHALL		<a href="#">1098-15420</a>	59768-2
@codeSystem	1..1	SHALL		<a href="#">1098-30827</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8060</a>	
text	1..1	SHALL		<a href="#">1098-8061</a>	
entry	0..*	MAY		<a href="#">1098-8743</a>	
observation	1..1	SHALL		<a href="#">1098-15508</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8058) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.29" (CONF:1098-10445).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32572).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15419).

- a. This code **SHALL** contain exactly one [1..1] @code="59768-2" Procedure Indications (CONF:1098-15420).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30827).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8060).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8061).
- 5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8743) such that it
  - a. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15508).

**Figure 112: Procedure Indications Section (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.29" extension="2014-06-09" />
  <code code="59768-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="PROCEDURE INDICATIONS" />
  <title>Procedure Indications</title>
  <text>The procedure is performed for screening in a low risk individual.
  </text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Indication Entry -->
      <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
      ...
      </observation>
    </entry>
  </section>
```

## 3.60 Procedure Specimens Taken Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.31 (open)]

**Table 191: Procedure Specimens Taken Section Contexts**

Contained By:	Contains:
<a href="#">Procedure Note (V3)</a> (optional)	
<a href="#">Operative Note (V3)</a> (required)	

The Procedure Specimens Taken Section records the tissues, objects, or samples taken from the patient during the procedure including biopsies, aspiration fluid, or other samples sent for pathological analysis. The narrative may include a description of the specimens.

**Table 192: Procedure Specimens Taken Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.31)					
templateId	1..1	SHALL		<a href="#">81-8086</a>	
@root	1..1	SHALL		<a href="#">81-10446</a>	2.16.840.1.113883.10.20.22.2.31
code	1..1	SHALL		<a href="#">81-15421</a>	
@code	1..1	SHALL		<a href="#">81-15422</a>	59773-2
@codeSystem	1..1	SHALL		<a href="#">81-26493</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8088</a>	
text	1..1	SHALL		<a href="#">81-8089</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8086) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.31" (CONF:81-10446).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15421).
  - a. This code **SHALL** contain exactly one [1..1] @code="59773-2" Procedure Specimens Taken (CONF:81-15422).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26493).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8088).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8089).
5. The Procedure Specimens Taken section **SHALL** list all specimens removed or **SHALL** explicitly state that no specimens were taken (CONF:81-8742).

**Figure 113: Procedure Specimens Taken Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.31"/>
  <code code="59773-2"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="PROCEDURE SPECIMENS TAKEN"/>
  <title>Procedure Specimens Taken</title>
  <text>Ascending colon polyp</text>
</section>
```

### **3.61 Procedures Section (entries optional) (V2)**

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09  
(open)]

**Table 193: Procedures Section (entries optional) (V2) Contexts**

<b>Contained By:</b>	<b>Contains:</b>
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional)

This section describes all interventional, surgical, diagnostic, or therapeutic procedures or treatments pertinent to the patient historically at the time the document is generated. The section should include notable procedures, but can contain all procedures for the period of time being summarized. The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM), therefore this section contains procedure templates represented with three RIM classes: Act, Observation, and Procedure. Procedure Activity Procedure (V2) is for procedures that alter the physical condition of a patient (e.g., splenectomy). Procedure Activity Observation (V2) is for procedures that result in new information about a patient but do not cause physical alteration (e.g., EEG). Procedure Activity Act (V2) is for all other types of procedures (e.g., dressing change).

**Table 194: Procedures Section (entries optional) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-6270</a>	
@root	1..1	SHALL		<a href="#">1098-6271</a>	2.16.840.1.113883.10.20.22.2.7
@extension	1..1	SHALL		<a href="#">1098-32532</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15423</a>	
@code	1..1	SHALL		<a href="#">1098-15424</a>	47519-4
@codeSystem	1..1	SHALL		<a href="#">1098-31139</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
title	1..1	SHALL		<a href="#">1098-17184</a>	
text	1..1	SHALL		<a href="#">1098-6273</a>	
entry	0..*	MAY		<a href="#">1098-6274</a>	
procedure	1..1	SHALL		<a href="#">1098-15509</a>	<a href="#">Procedure Activity Procedure (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.14:2014-06-09)
entry	0..*	MAY		<a href="#">1098-6278</a>	
observation	1..1	SHALL		<a href="#">1098-15510</a>	<a href="#">Procedure Activity Observation (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.13:2014-06-09)
entry	0..*	MAY		<a href="#">1098-8533</a>	
act	1..1	SHALL		<a href="#">1098-15511</a>	<a href="#">Procedure Activity Act (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.12:2014-06-09)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-6270) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.7" (CONF:1098-6271).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32532).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15423).
  - a. This code **SHALL** contain exactly one [1..1] @code="47519-4" History of Procedures (CONF:1098-15424).

- b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31139).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-17184).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-6273).
- 5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-6274) such that it
  - a. **SHALL** contain exactly one [1..1] [\*\*Procedure Activity Procedure \(V2\)\*\*](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-15509).
- 6. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-6278) such that it
  - a. **SHALL** contain exactly one [1..1] [\*\*Procedure Activity Observation \(V2\)\*\*](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09) (CONF:1098-15510).
- 7. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-8533) such that it
  - a. **SHALL** contain exactly one [1..1] [\*\*Procedure Activity Act \(V2\)\*\*](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09) (CONF:1098-15511).

### 3.61.1 Procedures Section (entries required) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09 (open)]

**Table 195: Procedures Section (entries required) (V2) Contexts**

Contained By:	Contains:
<a href="#">Continuity of Care Document (CCD) (V3)</a> (optional) <a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional)

This section describes all interventional, surgical, diagnostic, or therapeutic procedures or treatments pertinent to the patient historically at the time the document is generated. The section should include notable procedures, but can contain all procedures for the period of time being summarized. The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM), therefore this section contains procedure templates represented with three RIM classes: Act, Observation, and Procedure. Procedure act is for procedures that alter the physical condition of a patient (e.g., splenectomy). Observation act is for procedures that result in new information about a patient but do not cause physical alteration (e.g., EEG). Act is for all other types of procedures (e.g., dressing change).

**Table 196: Procedures Section (entries required) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09)					
@nullFlavor	0..1	MAY		<a href="#">1098-32876</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1098-7891</a>	
@root	1..1	SHALL		<a href="#">1098-10447</a>	2.16.840.1.113883.10.20.22.2.7.1
@extension	1..1	SHALL		<a href="#">1098-32533</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15425</a>	
@code	1..1	SHALL		<a href="#">1098-15426</a>	47519-4
@codeSystem	1..1	SHALL		<a href="#">1098-31138</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7893</a>	
text	1..1	SHALL		<a href="#">1098-7894</a>	
entry	1..*	SHALL		<a href="#">1098-7895</a>	
act	0..1	MAY		<a href="#">1098-32877</a>	<a href="#">Procedure Activity Act (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09)
observation	0..1	MAY		<a href="#">1098-32878</a>	<a href="#">Procedure Activity Observation (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09)
procedure	0..1	MAY		<a href="#">1098-15512</a>	<a href="#">Procedure Activity Procedure (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)

1. Conforms to [Procedures Section \(entries optional\) \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-32876).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7891) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.7.1" (CONF:1098-10447).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32533).
4. **SHALL** contain exactly one [1..1] code (CONF:1098-15425).

- a. This code **SHALL** contain exactly one [1..1] @code="47519-4" History of Procedures (CONF:1098-15426).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31138).
- 5. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7893).
- 6. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7894).

If section/@nullFlavor is not present there **SHALL** be at least one entry conformant to Procedure Activity Act (V2) (templateId 2.16.840.1.113883.10.20.22.4.12:2014-06-09) **OR** Procedure Activity Observation (V2) (templateId: 2.16.840.1.113883.10.20.22.4.13:2014-06-09) **OR** Procedure Activity Procedure (V2) (templateId: 2.16.840.1.113883.10.20.22.4.14:2014-06-09)

- 7. **SHALL** contain at least one [1..\*] **entry** (CONF:1098-7895) such that it
  - a. **MAY** contain zero or one [0..1] [Procedure Activity Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09) (CONF:1098-32877).
  - b. **MAY** contain zero or one [0..1] [Procedure Activity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09) (CONF:1098-32878).
  - c. **MAY** contain zero or one [0..1] [Procedure Activity Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-15512).

**Figure 114: Procedures Section (entries required) (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.7" extension="2014-06-09" />
  <!-- Procedures section template -->
  <code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="PROCEDURES" />
  <title>Procedures</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- Procedure Activity Procedure template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
      ...
    </procedure>
  </entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09" />
    <!-- Procedure Activity Observation template -->
    ...
  </observation>
  <entry>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09" />
      <!-- Procedure Activity Act template -->
      ...
    </act>
  </entry>
</section>
```

### 3.62 Reason for Referral Section (V2)

[section: identifier urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.1:2014-06-09  
(open)]

**Table 197: Reason for Referral Section (V2) Contexts**

Contained By:	Contains:
<a href="#">Transfer Summary (V2)</a> (required) <a href="#">Referral Note (V2)</a> (required)	<a href="#">Patient Referral Act</a> (optional)

This section describes the clinical reason why a provider is sending a patient to another provider for care. The reason for referral may become the reason for visit documented by the receiving provider.

**Table 198: Reason for Referral Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.1:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7844</a>	
@root	1..1	SHALL	UID	<a href="#">1098-10468</a>	1.3.6.1.4.1.19376.1.5.3.1.3.1
@extension	1..1	SHALL		<a href="#">1098-32571</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15427</a>	
@code	1..1	SHALL		<a href="#">1098-15428</a>	42349-1
@codeSystem	1..1	SHALL		<a href="#">1098-30867</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-7846</a>	
text	1..1	SHALL		<a href="#">1098-7847</a>	
entry	0..*	MAY		<a href="#">1098-30808</a>	
observation	1..1	SHALL		<a href="#">1098-30897</a>	<a href="#">Patient Referral Act</a> (identifier: urn:oid:2.16.840.1.113883.10.22.4.140)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7844) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.1" (CONF:1098-10468).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32571).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15427).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="42349-1" Reason for Referral (CONF:1098-15428).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30867).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-7846).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-7847).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1098-30808) such that it
  - a. **SHALL** contain exactly one [1..1] [Patient Referral Act](#) (identifier: urn:oid:2.16.840.1.113883.10.22.4.140) (CONF:1098-30897).

**Figure 115: Reason for Referral Section (V2) Example**

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.1" extension="2014-06-09" />
    <code code="42349-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Reason for Referral " />
    <title>REASON FOR REFERRAL</title>
    <text>Request for Patient referral for consultation.</text>
    <entry>
      <observation classCode="OBS" moodCode="INT">
        <!-- Patient Referral Activity Observation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.140" />
        ...
      </observation>
    </entry>
  </section>
</component>
```

### 3.63 Reason for Visit Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.12 (open) ]

**Table 199: Reason for Visit Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

This section records the patient's reason for the patient's visit (as documented by the provider). Local policy determines whether Reason for Visit and Chief Complaint are in separate or combined sections.

**Table 200: Reason for Visit Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12)					
templateId	1..1	SHALL		<a href="#">81-7836</a>	
@root	1..1	SHALL		<a href="#">81-10448</a>	2.16.840.1.113883.10.20.22.2.12
code	1..1	SHALL		<a href="#">81-15429</a>	
@code	1..1	SHALL		<a href="#">81-15430</a>	29299-5
@codeSystem	1..1	SHALL		<a href="#">81-26494</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7838</a>	
text	1..1	SHALL		<a href="#">81-7839</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7836) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.12" (CONF:81-10448).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15429).
  - a. This code **SHALL** contain exactly one [1..1] @code="29299-5" Reason for Visit (CONF:81-15430).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26494).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7838).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7839).

**Figure 116: Reason for Visit Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.12"/>
  <code code="29299-5"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="REASON FOR VISIT"/>
  <title>REASON FOR VISIT</title>
  <text>
    <paragraph>Dark stools.</paragraph>
  </text>
</section>

```

### 3.64 Results Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01  
(open)]

**Table 201: Results Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">History and Physical (V3)</a> (required) <a href="#">Progress Note (V3)</a> (optional)	<a href="#">Result Organizer (V3)</a> (optional)

This section contains the results of observations generated by laboratories, imaging and other procedures. The scope includes observations of hematology, chemistry, serology, virology, toxicology, microbiology, plain x-ray, ultrasound, CT, MRI, angiography, echocardiography, nuclear medicine, pathology, and procedure observations.

This section often includes notable results such as abnormal values or relevant trends. It can contain all results for the period of time being documented.

Laboratory results are typically generated by laboratories providing analytic services in areas such as chemistry, hematology, serology, histology, cytology, anatomic pathology, microbiology, and/or virology. These observations are based on analysis of specimens obtained from the patient and submitted to the laboratory.

Imaging results are typically generated by a clinician reviewing the output of an imaging procedure, such as where a cardiologist reports the left ventricular ejection fraction based on the review of a cardiac echocardiogram.

Procedure results are typically generated by a clinician to provide more granular information about component observations made during a procedure, such as where a gastroenterologist reports the size of a polyp observed during a colonoscopy.

**Table 202: Results Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7116</a>	
@root	1..1	SHALL		<a href="#">1198-9136</a>	2.16.840.1.113883.10.20.22.2.3
@extension	1..1	SHALL		<a href="#">1198-32591</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15431</a>	
@code	1..1	SHALL		<a href="#">1198-15432</a>	30954-2
@codeSystem	1..1	SHALL		<a href="#">1198-31041</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8891</a>	
text	1..1	SHALL		<a href="#">1198-7118</a>	
entry	0..*	SHOULD		<a href="#">1198-7119</a>	
organizer	1..1	SHALL		<a href="#">1198-15515</a>	<a href="#">Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.1:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7116) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.3" (CONF:1198-9136).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32591).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15431).
  - a. This code **SHALL** contain exactly one [1..1] @code="30954-2" Relevant diagnostic tests and/or laboratory data (CONF:1198-15432).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31041).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8891).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7118).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7119) such that it
  - a. **SHALL** contain exactly one [1..1] [Result Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:1198-15515).

### 3.64.1 Results Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01  
(open)]

**Table 203: Results Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (required) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Result Organizer (V3)</a> (required)

The Results Section contains observations of results generated by laboratories, imaging procedures, and other procedures. These coded result observations are contained within a Results Organizer in the Results Section. The scope includes observations such as hematology, chemistry, serology, virology, toxicology, microbiology, plain x-ray, ultrasound, CT, MRI, angiography, echocardiography, nuclear medicine, pathology, and procedure observations. The section often includes notable results such as abnormal values or relevant trends, and could contain all results for the period of time being documented.

Laboratory results are typically generated by laboratories providing analytic services in areas such as chemistry, hematology, serology, histology, cytology, anatomic pathology, microbiology, and/or virology. These observations are based on analysis of specimens obtained from the patient and submitted to the laboratory.

Imaging results are typically generated by a clinician reviewing the output of an imaging procedure, such as where a cardiologist reports the left ventricular ejection fraction based on the review of a cardiac echocardiogram.

Procedure results are typically generated by a clinician to provide more granular information about component observations made during a procedure, such as where a gastroenterologist reports the size of a polyp observed during a colonoscopy.

**Table 204: Results Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32875</a>	urn:oid:2.16.840.1.113883.5.10 08 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-7108</a>	
@root	1..1	SHALL		<a href="#">1198-9137</a>	2.16.840.1.113883.10.20.22.2.3 .1
@extension	1..1	SHALL		<a href="#">1198-32592</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15433</a>	
@code	1..1	SHALL		<a href="#">1198-15434</a>	30954-2
@codeSystem	1..1	SHALL		<a href="#">1198-31040</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-8892</a>	
text	1..1	SHALL		<a href="#">1198-7111</a>	
entry	1..*	SHALL		<a href="#">1198-7112</a>	
organizer	1..1	SHALL		<a href="#">1198-15516</a>	<a href="#">Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.1:2015-08-01)</a>

1. Conforms to [Results Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32875).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7108) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.3.1" (CONF:1198-9137).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32592).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15433).
  - a. This code **SHALL** contain exactly one [1..1] @code="30954-2" Relevant diagnostic tests and/or laboratory data (CONF:1198-15434).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31040).
5. **SHALL** contain exactly one [1..1] **title** (CONF:1198-8892).
6. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7111).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-7112) such that it

  - a. **SHALL** contain exactly one [1..1] **Result Organizer (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:1198-15516).

**Figure 117: Results Section (entries required) (V3) Example**

### **3.65 Review of Systems Section**

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18 (open)]

**Table 205: Review of Systems Section Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Discharge Summary (V3)</a> (optional) <a href="#">History and Physical (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (optional) <a href="#">Referral Note (V2)</a> (optional) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Procedure Note (V3)</a> (optional)	

The Review of Systems Section contains a relevant collection of symptoms and functions systematically gathered by a clinician. It includes symptoms the patient is currently experiencing, some of which were not elicited during the history of present illness, as well as a potentially large number of pertinent negatives, for example, symptoms that the patient denied experiencing.

**Table 206: Review of Systems Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18)					
templateId	1..1	SHALL		<a href="#">81-7812</a>	
@root	1..1	SHALL	UID	<a href="#">81-10469</a>	1.3.6.1.4.1.19376.1.5.3.1.3.18
code	1..1	SHALL		<a href="#">81-15435</a>	
@code	1..1	SHALL		<a href="#">81-15436</a>	10187-3
@codeSystem	1..1	SHALL		<a href="#">81-26495</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7814</a>	
text	1..1	SHALL		<a href="#">81-7815</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7812) such that it
  - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.3.18" (CONF:81-10469).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15435).
  - a. This code **SHALL** contain exactly one [1..1] @code="10187-3" Review of Systems (CONF:81-15436).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26495).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7814).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7815).

**Figure 118: Review of Systems Section Example**

```
<section>
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"/>
  <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="REVIEW OF SYSTEMS"/>
  <title>REVIEW OF SYSTEMS</title>
  <text>
    <paragraph>
      Patient denies recent history of fever or malaise. Positive
      For weakness and shortness of breath. One episode of melena. No recent
      headaches. Positive for osteoarthritis in hips, knees and hands.
    </paragraph>
  </text>
</section>
```

### 3.66 Social History Section (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01  
(open) ]

**Table 207: Social History Section (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional)	<a href="#">Pregnancy Observation</a> (optional)
<a href="#">Continuity of Care Document (CCD) (V3)</a> (required)	<a href="#">Caregiver Characteristics</a> (optional)
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Characteristics of Home Environment</a> (optional)
<a href="#">History and Physical (V3)</a> (required)	<a href="#">Cultural and Religious Observation</a> (optional)
<a href="#">Transfer Summary (V2)</a> (optional)	<a href="#">Smoking Status - Meaningful Use (V2)</a> (optional)
<a href="#">Referral Note (V2)</a> (optional)	<a href="#">Tobacco Use (V2)</a> (optional)
<a href="#">Procedure Note (V3)</a> (optional)	<a href="#">Social History Observation (V3)</a> (optional)

This section contains social history data that influence a patient's physical, psychological or emotional health (e.g., smoking status, pregnancy). Demographic data, such as marital status, race, ethnicity, and religious affiliation, is captured in the header.

**Table 208: Social History Section (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7936</a>	
@root	1..1	SHALL		<a href="#">1198-10449</a>	2.16.840.1.113883.10.20.22.2.17
@extension	1..1	SHALL		<a href="#">1198-32494</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-14819</a>	
@code	1..1	SHALL		<a href="#">1198-14820</a>	29762-2
@codeSystem	1..1	SHALL		<a href="#">1198-30814</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-7938</a>	
text	1..1	SHALL		<a href="#">1198-7939</a>	
entry	0..*	MAY		<a href="#">1198-7953</a>	
observation	1..1	SHALL		<a href="#">1198-14821</a>	<a href="#">Social History Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.38:2015-08-01)
entry	0..*	MAY		<a href="#">1198-9132</a>	
observation	1..1	SHALL		<a href="#">1198-14822</a>	<a href="#">Pregnancy Observation</a> (identifier: urn:oid:2.16.840.1.113883.10. 0.15.3.8)
entry	0..*	SHOULD		<a href="#">1198-14823</a>	
observation	1..1	SHALL		<a href="#">1198-14824</a>	<a href="#">Smoking Status - Meaningful</a> <a href="#">Use (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.78:2014-06-09)
entry	0..*	MAY		<a href="#">1198-16816</a>	
observation	1..1	SHALL		<a href="#">1198-16817</a>	<a href="#">Tobacco Use (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.85:2014-06-09)
entry	0..*	MAY		<a href="#">1198-28361</a>	
observation	1..1	SHALL		<a href="#">1198-28362</a>	<a href="#">Caregiver Characteristics</a> (identifier:

				<a href="#">urn:oid:2.16.840.1.113883.10.2 0.22.4.72</a>
entry	0..*	MAY		<a href="#">1198- 28366</a>
observation	1..1	SHALL		<a href="#">1198- 28367</a> <a href="#">Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.111</a>
entry	0..*	MAY		<a href="#">1198- 28825</a>
observation	1..1	SHALL		<a href="#">1198- 28826</a> <a href="#">Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.109</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7936) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.17" (CONF:1198-10449).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32494).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14819).
  - a. This code **SHALL** contain exactly one [1..1] @code="29762-2" Social History (CONF:1198-14820).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30814).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-7938).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7939).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-7953) such that it
  - a. **SHALL** contain exactly one [1..1] [Social History Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01) (CONF:1198-14821).
6. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-9132) such that it
  - a. **SHALL** contain exactly one [1..1] [Pregnancy Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8) (CONF:1198-14822).
7. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-14823) such that it
  - a. **SHALL** contain exactly one [1..1] [Smoking Status - Meaningful Use \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:1198-14824).
8. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-16816) such that it
  - a. **SHALL** contain exactly one [1..1] [Tobacco Use \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:1198-16817).
9. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28361) such that it
  - a. **SHALL** contain exactly one [1..1] [Caregiver Characteristics](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1198-28362).
10. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28366) such that it

- a. **SHALL** contain exactly one [1..1] [Cultural and Religious Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:1198-28367).
- 11. **MAY** contain zero or more [0..\*] **entry** (CONF:1198-28825) such that it
  - a. **SHALL** contain exactly one [1..1] [Characteristics of Home Environment](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:1198-28826).

**Figure 119: Social History Section (V3) Example**

```

        </observation>
    </entry>
</section>
</component>

```

### 3.67 Subjective Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.21.2.2 (open) ]

**Table 209: Subjective Section Contexts**

Contained By:	Contains:
<a href="#">Progress Note (V3)</a> (optional)	

The Subjective Section describes in a narrative format the patient's current condition and/or interval changes as reported by the patient or by the patient's guardian or another informant.

**Table 210: Subjective Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.21.2.2)					
templateId	1..1	SHALL		<a href="#">81-7873</a>	
@root	1..1	SHALL	UID	<a href="#">81-10470</a>	2.16.840.1.113883.10.20.21.2.2
code	1..1	SHALL		<a href="#">81-15437</a>	
@code	1..1	SHALL		<a href="#">81-15438</a>	61150-9
@codeSystem	1..1	SHALL		<a href="#">81-26496</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-7875</a>	
text	1..1	SHALL		<a href="#">81-7876</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7873) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.21.2.2" (CONF:81-10470).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15437).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="61150-9" Subjective (CONF:81-15438).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26496).
- 3. **SHALL** contain exactly one [1..1] **title** (CONF:81-7875).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:81-7876).

**Figure 120: Subjective Section Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.21.2.2"/>
  <code code="61150-9" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="SUBJECTIVE"/>
  <title>SUBJECTIVE DATA</title>
  <text>
    <paragraph>
      I have used the peripheral nerve stimulator in my back for five days.
      While using it I found that I was able to do physical activity
      without pain. However, afterwards for one day, I would feel pain but
      then it would go away. I also noticed that I didn't have to take the
      Vicodin as much. I took 2 less Vicodin per day and 2 less tramadol
      everyday. I have not lain in my bed in a year and a half. I sleep in
      a recliner.
    </paragraph>
  </text>
</section>

```

### 3.68 Surgery Description Section (DEPRECATED)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.26:2014-06-09  
(open)]

THIS TEMPLATE HAS BEEN DEPRECATED IN C-CDA R2 AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for deprecation:** This template has been replaced by the Procedure Description Section (2.16.840.1.113883.10.20.22.2.27).

**Table 211: Surgery Description Section (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.26:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-8022</a>	
@root	1..1	SHALL		<a href="#">1098-10450</a>	2.16.840.1.113883.10.20.22.2.6
@extension	1..1	SHALL		<a href="#">1098-32893</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15439</a>	
@code	1..1	SHALL		<a href="#">1098-15440</a>	29554-3
@codeSystem	1..1	SHALL		<a href="#">1098-26497</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1098-8024</a>	
text	1..1	SHALL		<a href="#">1098-8025</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8022) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.26" (CONF:1098-10450).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32893).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15439).
  - a. This code **SHALL** contain exactly one [1..1] @code="29554-3" Surgery Description (CONF:1098-15440).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-26497).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1098-8024).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1098-8025).

## 3.69 Surgical Drains Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.7.13 (open) ]

**Table 212: Surgical Drains Section Contexts**

Contained By:	Contains:
<a href="#">Operative Note (V3)</a> (optional)	

The Surgical Drains Section may be used to record drains placed during the surgical procedure. Optionally, surgical drain placement may be represented with a text element in the Procedure Description Section.

**Table 213: Surgical Drains Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.7.13)					
templateId	1..1	SHALL		<a href="#">81-8038</a>	
@root	1..1	SHALL	UID	<a href="#">81-10473</a>	2.16.840.1.113883.10.20.7.13
code	1..1	SHALL		<a href="#">81-15441</a>	
@code	1..1	SHALL		<a href="#">81-15442</a>	11537-8
@codeSystem	1..1	SHALL		<a href="#">81-26498</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">81-8040</a>	
text	1..1	SHALL		<a href="#">81-8041</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8038) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.7.13" (CONF:81-10473).
2. **SHALL** contain exactly one [1..1] **code** (CONF:81-15441).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="11537-8" Surgical Drains (CONF:81-15442).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26498).
3. **SHALL** contain exactly one [1..1] **title** (CONF:81-8040).
4. **SHALL** contain exactly one [1..1] **text** (CONF:81-8041).
5. If the Surgical Drains section is present, there **SHALL** be a statement providing details of the drains placed or **SHALL** explicitly state there were no drains placed (CONF:81-8056).

**Figure 121: Surgical Drains Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.7.13"/>
  <code code="11537-8"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="SURGICAL DRAINS"/>
  <title>Surgical Drains</title>
  <text>Penrose drain placed</text>
</section>
```

### 3.70 Vital Signs Section (entries optional) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01  
(open)]

**Table 214: Vital Signs Section (entries optional) (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Summary (V3)</a> (optional)	<a href="#">Vital Signs Organizer (V3)</a> (optional)
<a href="#">History and Physical (V3)</a> (required)	
<a href="#">Progress Note (V3)</a> (optional)	

The Vital Signs Section contains relevant vital signs for the context and use case of the document type, such as blood pressure, heart rate, respiratory rate, height, weight, body mass index, head circumference, pulse oximetry, temperature, and body surface area. The section should include notable vital signs such as the most recent, maximum and/or minimum, baseline, or relevant trends.

Vital signs are represented in the same way as other results, but are aggregated into their own section to follow clinical conventions.

**Table 215: Vital Signs Section (entries optional) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01)					
templateId	1..1	SHALL		<a href="#">1198-7268</a>	
@root	1..1	SHALL		<a href="#">1198-10451</a>	2.16.840.1.113883.10.20.22.2.4
@extension	1..1	SHALL		<a href="#">1198-32584</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15242</a>	
@code	1..1	SHALL		<a href="#">1198-15243</a>	8716-3
@codeSystem	1..1	SHALL		<a href="#">1198-30902</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-9966</a>	
text	1..1	SHALL		<a href="#">1198-7270</a>	
entry	0..*	SHOULD		<a href="#">1198-7271</a>	
organizer	1..1	SHALL		<a href="#">1198-15517</a>	<a href="#">Vital Signs Organizer (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.26:2015-08-01)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7268) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.4" (CONF:1198-10451).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32584).
2. **SHALL** contain exactly one [1..1] **code** (CONF:1198-15242).
  - a. This code **SHALL** contain exactly one [1..1] @code="8716-3" Vital Signs (CONF:1198-15243).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30902).
3. **SHALL** contain exactly one [1..1] **title** (CONF:1198-9966).
4. **SHALL** contain exactly one [1..1] **text** (CONF:1198-7270).
5. **SHOULD** contain zero or more [0..\*] **entry** (CONF:1198-7271) such that it
  - a. **SHALL** contain exactly one [1..1] [Vital Signs Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01) (CONF:1198-15517).

### 3.70.1 Vital Signs Section (entries required) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01  
(open)]

**Table 216: Vital Signs Section (entries required) (V3) Contexts**

Contained By:	Contains:
<a href="#">Consultation Note (V3)</a> (optional) <a href="#">Continuity of Care Document (CCD) (V3)</a> (required) <a href="#">Transfer Summary (V2)</a> (required) <a href="#">Referral Note (V2)</a> (optional)	<a href="#">Vital Signs Organizer (V3)</a> (required)

The Vital Signs Section contains relevant vital signs for the context and use case of the document type, such as blood pressure, heart rate, respiratory rate, height, weight, body mass index, head circumference, pulse oximetry, temperature, and body surface area. The section should include notable vital signs such as the most recent, maximum and/or minimum, baseline, or relevant trends.

Vital signs are represented in the same way as other results, but are aggregated into their own section to follow clinical conventions.

**Table 217: Vital Signs Section (entries required) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01)					
@nullFlavor	0..1	MAY		<a href="#">1198-32874</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
templateId	1..1	SHALL		<a href="#">1198-7273</a>	
@root	1..1	SHALL		<a href="#">1198-10452</a>	2.16.840.1.113883.10.20.22.2.4.1
@extension	1..1	SHALL		<a href="#">1198-32585</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-15962</a>	
@code	1..1	SHALL		<a href="#">1198-15963</a>	8716-3
@codeSystem	1..1	SHALL		<a href="#">1198-30903</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">1198-9967</a>	
text	1..1	SHALL		<a href="#">1198-7275</a>	
entry	1..*	SHALL		<a href="#">1198-7276</a>	
organizer	1..1	SHALL		<a href="#">1198-15964</a>	<a href="#">Vital Signs Organizer (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01)</a>

1. Conforms to [Vital Signs Section \(entries optional\) \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01).
2. **MAY** contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32874).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-7273) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.4.1" (CONF:1198-10452).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32585).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-15962).
  - a. This code **SHALL** contain exactly one [1..1] @code="8716-3" Vital Signs (CONF:1198-15963).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30903).
5. **SHALL** contain exactly one [1..1] title (CONF:1198-9967).
6. **SHALL** contain exactly one [1..1] text (CONF:1198-7275).

If section/@nullFlavor is not present:

7. **SHALL** contain at least one [1..\*] **entry** (CONF:1198-7276) such that it

a. **SHALL** contain exactly one [1..1] **Vital Signs Organizer (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01) (CONF:1198-15964).

**Figure 122: Vital Signs Section (entries required) (V3) Example**

```
<component>
  <section>
    <!-- ** Vital Signs section with entries required -->
    <templateId root="2.16.840.1.113883.10.20.22.2.4.1" extension="2015-08-01" />
    <code code="8716-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="VITAL SIGNS" />
    <title>VITAL SIGNS</title>
    <text>
      . . .
    </text>
    <entry typeCode="DRIX">
      <organizer classCode="CLUSTER" moodCode="EVN">
        <!-- ** Vital signs organizer -->
        <templateId root="2.16.840.1.113883.10.20.22.4.26" extension="2015-08-01"
/>
      . . .

      </organizer>
    </entry>
  </section>
</component>
```

## 4 ENTRY-LEVEL TEMPLATES

This chapter describes the clinical statement entry templates used within the sections of the document types of this consolidated guide. Entry templates contain constraints that are required for conformance.

Entry-level templates are always in sections.

Each entry-level template description contains the following information:

- Key template metadata (e.g., template identifier, etc.)
- Description and explanatory narrative.
- Required CDA acts, participants and vocabularies.
- Optional CDA acts, participants and vocabularies.

Several entry-level templates require an effectiveTime:

The effectiveTime of an observation is the time interval over which the observation is known to be true. The low and high values should be as precise as possible, but no more precise than known. While CDA has multiple mechanisms to record this time interval (e.g., by low and high values, low and width, high and width, or center point and width), this guide constrains most to use only the low/high form. The low value is the earliest point for which the condition is known to have existed. The high value, when present, indicates the time at which the observation was no longer known to be true. The full description of effectiveTime and time intervals is contained in the CDA R2 normative edition.

Provenance in entry templates:

In this version of Consolidated CDA (C-CDA), we have added a “SHOULD” Author constraint on several entry-level templates. Authorship and Author timestamps must be explicitly asserted in these cases, unless the values propagated from the document header hold true.

ID in entry templates:

Entry-level templates may also describe an id element, which is an identifier for that entry. This id may be referenced within the document, or by the system receiving the document. The id assigned must be globally unique.

### 4.1 Admission Medication (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.36:2014-06-09 (open) ]

**Table 218: Admission Medication (V2) Contexts**

Contained By:	Contains:
<a href="#">Admission Medications Section (entries optional) (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (required)

This template represents the medications taken by the patient prior to and at the time of admission.

**Table 219: Admission Medication (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.36:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7698</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-7699</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-16758</a>	
@root	1..1	SHALL		<a href="#">1098-16759</a>	2.16.840.1.113883.10.20.22.4.36
@extension	1..1	SHALL		<a href="#">1098-32524</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-15518</a>	
@code	1..1	SHALL		<a href="#">1098-15519</a>	42346-7
@codeSystem	1..1	SHALL		<a href="#">1098-32152</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1098-7701</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7702</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
substanceAdministration	1..1	SHALL		<a href="#">1098-15520</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7698).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7699).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-16758) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.36"** (CONF:1098-16759).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32524).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1098-15518).
  - a. This code **SHALL** contain exactly one [1..1] **@code="42346-7"** Medications on Admission (CONF:1098-15519).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32152).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1098-7701) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7702).
- b. **SHALL** contain exactly one [1..1] **Medication Activity (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15520).

**Figure 123: Admission Medication (V2) Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.36" extension="2014-06-09" />
  <code code="42346-7" />
  <entryRelationship typeCode="SUBJ">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <!-- ** MEDICATION ACTIVITY V2 ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
      ...
    </substanceAdministration>
  </entryRelationship>
</act>
```

## 4.2 Advance Directive Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01 (open)]

**Table 220: Advance Directive Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Advance Directives Section (entries optional) (V3)</a> (optional) <a href="#">Advance Directives Section (entries required) (V3)</a> (optional)	<a href="#">US Realm Address (AD.US.FIELDDED)</a> (optional) <a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (optional) <a href="#">Author Participation</a> (optional)

This clinical statement represents Advance Directive Observation findings (e.g., “resuscitation status is Full Code”) rather than orders. It should not be considered a legal document or a substitute for the actual Advance Directive document. The related legal documents are referenced using the reference/externalReference element.

The Advance Directive Observation describes the patient’s directives, including but not limited to:

- Medications
- Transfer of Care to Hospital
- Treatment
- Procedures
- Intubation and Ventilation

- Diagnostic Tests
- Tests

The observation/value element contains the detailed patient directive which may be coded or text. For example, a category directive may be antibiotics, and the details would be intravenous antibiotics only.

**Table 221: Advance Directive Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8648</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-8649</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8655</a>	
@root	1..1	SHALL		<a href="#">1198-10485</a>	2.16.840.1.113883.10.20.22.4.48
@extension	1..1	SHALL		<a href="#">1198-32496</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8654</a>	
code	1..1	SHALL		<a href="#">1198-8651</a>	urn:oid:2.16.840.1.113883.1.11.20.2 (AdvanceDirectiveTypeCode)
translation	1..1	SHALL		<a href="#">1198-32842</a>	
@code	1..1	SHALL		<a href="#">1198-32843</a>	75320-2
@codeSystem	1..1	SHALL		<a href="#">1198-32844</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-8652</a>	
@code	1..1	SHALL		<a href="#">1198-19082</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-8656</a>	
low	1..1	SHALL		<a href="#">1198-28719</a>	
high	1..1	SHALL		<a href="#">1198-15521</a>	
value	1..1	SHALL		<a href="#">1198-30804</a>	
author	0..*	SHOULD		<a href="#">1198-32406</a>	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)
participant	0..*	SHOULD		<a href="#">1198-8662</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8663</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VRF
templateId	1..1	SHALL		<a href="#">1198-8664</a>	

@root	1..1	SHALL		<a href="#">1198-10486</a>	2.16.840.1.113883.10.20.1.58
time	0..1	SHOULD		<a href="#">1198-8665</a>	
participantRole	1..1	SHALL		<a href="#">1198-8825</a>	
code	0..1	SHOULD		<a href="#">1198-28446</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
addr	0..*	MAY		<a href="#">1198-28451</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2)</a>
playingEntity	0..1	MAY		<a href="#">1198-28428</a>	
name	0..*	MAY		<a href="#">1198-28454</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1)</a>
participant	0..*	SHOULD		<a href="#">1198-8667</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8668</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CST
participantRole	1..1	SHALL		<a href="#">1198-8669</a>	
@classCode	1..1	SHALL		<a href="#">1198-8670</a>	urn:oid:2.16.840.1.113883.5.11.0 (HL7RoleClass) = AGNT
code	0..1	SHOULD		<a href="#">1198-28440</a>	urn:oid:2.16.840.1.113883.11.2.0.12.1 (Personal And Legal Relationship Role Type)
addr	0..1	SHOULD		<a href="#">1198-8671</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2)</a>
telecom	0..*	SHOULD		<a href="#">1198-8672</a>	
playingEntity	1..1	SHALL		<a href="#">1198-8824</a>	
code	0..1	SHOULD		<a href="#">1198-28444</a>	urn:oid:2.16.840.1.113883.11.2.0.9.51 (Healthcare Agent Qualifier)
name	1..1	SHALL		<a href="#">1198-8673</a>	
reference	1..*	SHOULD		<a href="#">1198-8692</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8694</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1198-</a>	

				<a href="#">8693</a>	
id	1..*	SHALL		<a href="#">1198-8695</a>	
text	0..1	MAY		<a href="#">1198-8696</a>	
reference	0..1	MAY		<a href="#">1198-8697</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8648).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8649).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8655) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.48"** (CONF:1198-10485).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32496).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8654).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [AdvanceDirectiveTypeCode](#) urn:oid:2.16.840.1.113883.1.11.20.2 **STATIC** 2015-08-01 (CONF:1198-8651).
  - a. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32842) such that it
    - i. **SHALL** contain exactly one [1..1] **@code="75320-2"** Advance directive (CONF:1198-32843).
    - ii. **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32844).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8652).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19082).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8656).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-28719).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1198-15521).
    - i. If the Advance Directive does not have a specified ending time, the <high> element **SHALL** have the nullFlavor attribute set to **NA** (CONF:1198-32449).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1198-30804) such that it
  - a. If type CD, then value will be SNOMED-CT 2.16.840.1.113883.6.96 (CONF:1198-32493).
9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-32406).

The participant "VRF" represents the clinician(s) who verified the patient advance directive observation.

10. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-8662) such that it
- SHALL** contain exactly one [1..1] @typeCode="VRF" Verifier (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8663).
  - SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8664) such that it
    - SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.1.58" (CONF:1198-10486).
  - SHOULD** contain zero or one [0..1] **time** (CONF:1198-8665).
    - The data type of Observation/participant/time in a verification **SHALL** be **TS** (time stamp) (CONF:1198-8666).
  - SHALL** contain exactly one [1..1] **participantRole** (CONF:1198-8825).
    - This participantRole **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-28446).
    - This participantRole **MAY** contain zero or more [0..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-28451).
    - This participantRole **MAY** contain zero or one [0..1] **playingEntity** (CONF:1198-28428).
      - The playingEntity, if present, **MAY** contain zero or more [0..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-28454).

This custodian (CST) participant identifies a legal representative for the patient's advance directive. Examples of such individuals are called health care agents, substitute decision makers and/or health care proxies. If there is more than one legal representative, a qualifier may be used to designate the legal representative as primary or secondary.

11. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-8667) such that it
- SHALL** contain exactly one [1..1] @typeCode="CST" Custodian (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8668).
  - SHALL** contain exactly one [1..1] **participantRole** (CONF:1198-8669).
    - This participantRole **SHALL** contain exactly one [1..1] @classCode="AGNT" Agent (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1198-8670).
    - This participantRole **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Personal And Legal Relationship Role Type](#) urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-28440).
    - This participantRole **SHOULD** contain zero or one [0..1] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-8671).
    - This participantRole **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-8672).

- v. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1198-8824).
  - 1. This playingEntity **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Agent Qualifier](#) urn:oid:2.16.840.1.113883.11.20.9.51 **DYNAMIC** (CONF:1198-28444).

Record the name of the agent who can provide a copy of the Advance Directive in the name element.

- 2. This playingEntity **SHALL** contain exactly one [1..1] **name** (CONF:1198-8673).
12. **SHOULD** contain at least one [1..\*] **reference** (CONF:1198-8692) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8694).
  - b. **SHALL** contain exactly one [1..1] **externalDocument** (CONF:1198-8693).
    - i. This externalDocument **SHALL** contain at least one [1..\*] **id** (CONF:1198-8695).
    - ii. This externalDocument **MAY** contain zero or one [0..1] **text** (CONF:1198-8696).
      - 1. The text, if present, **MAY** contain zero or one [0..1] **reference** (CONF:1198-8697).
        - a. The URL of a referenced advance directive document **MAY** be present, and **SHALL** be represented in Observation/reference/ExternalDocument/text/reference (CONF:1198-8698).
        - b. If a URL is referenced, then it **SHOULD** have a corresponding linkHTML element in narrative block (CONF:1198-8699).

**Table 222: AdvanceDirectiveTypeCode**

Value Set: AdvanceDirectiveTypeCode urn:oid:2.16.840.1.113883.1.11.20.2 A value set of SNOMED-CT codes that represent general categories of advance directives. Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
52765003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Intubation
61420007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Tube Feedings
78823007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Life Support
89666000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Cardiopulmonary resuscitation
281789004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Antibiotics
304251008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Resuscitation
14152002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Intravenous infusion
40617009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Artificial respiration
18629005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Administration of medication
5447007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Transfusion
...			

**Table 223: Healthcare Agent Qualifier**

Value Set: Healthcare Agent Qualifier urn:oid:2.16.840.1.113883.11.20.9.51 A value set SNOMED-CT qualifier codes for representing principal and secondary. Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
63161005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Principal
2603003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Secondary

**Figure 124: Advance Directive Observation (V3) Example**

```

<entry>
    <observation classCode="OBS" moodCode="EVN">
        <!-- ** Advance Directive Observation** -->
        <templateId root="2.16.840.1.113883.10.20.22.4.48"
        extension="2015-08-01" />
        <id root="9b54c3c9-1673-49c7-aef9-b037ed72ed27" />
        <code code="304251008" displayName="Resuscitation"
              codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT">
            <translation code="75320-2"
                        displayName="Advance Directive"
                        codeSystem="2.16.840.1.113883.6.1"
                        codeSystemName="LOINC"></translation>
        </code>
        <statusCode code="completed" />
        <effectiveTime>
            <low value="20110213" />
            <high nullFlavor="NA" />
        </effectiveTime>
        <value xsi:type="CD"
              code="304253006"
              codeSystem="2.16.840.1.113883.6.96"
              codeSystemName="SNOMED-CT"
              displayName="Not for resuscitation">
            <originalText>Do not resuscitate</originalText>
        </value>
        <author>
            <templateId root="2.16.840.1.113883.10.20.22.4.119" />
            <time value="201308011235-0800" />
            <assignedAuthor>
                <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                <code code="163W00000X"
                      displayName="Registered nurse"
                      codeSystem="2.16.840.1.113883.6.101"
                      codeSystemName="Health Care Provider Taxonomy (HIPAA)" />
                <assignedPerson>
                    <name>
                        <given>Nurse</given>
                        <family>Nightingale</family>
                        <suffix>RN</suffix>
                    </name>
                </assignedPerson>
                <representedOrganization classCode="ORG">
                    <id root="2.16.840.1.113883.19.5" />
                    <name>Good Health Hospital</name>
                </representedOrganization>
            </assignedAuthor>
        </author>
        <participant typeCode="VRF">
            <templateId root="2.16.840.1.113883.10.20.1.58" />
            <time value="201302013" />
            <participantRole>
                <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                <code code="163W00000X"
                      codeSystem="2.16.840.1.113883.6.101" />
            </participantRole>
        </participant>
    </observation>
</entry>

```

```

        codeSystemName="Health Care Provider Taxonomy (HIPAA)"
        displayName="Registered nurse" />
        <addr>
        ...
    </addr>
    <telecom value="tel:(995)555-1006" use="WP" />
    <playingEntity>
        <code code="63161005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Principal" />
        <name>
            <given>Nurse</given>
            <family>Florence</family>
            <suffix>RN</suffix>
        </name>
        </playingEntity>
    </participantRole>
</participant>
<participant typeCode="CST">
    <participantRole classCode="AGNT">
        <code code="MTH" codeSystem="2.16.840.1.113883.5.111" displayName="Mother"
/>
        <addr>
        ...
    </addr>
    <telecom value="tel:(999)555-1212" use="WP" />
    <playingEntity>
        <code code="63161005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Principal" />
        <name>
            <prefix>Mrs.</prefix>
            <given>Martha</given>
            <family>Jones</family>
        </name>
        </playingEntity>
    </participantRole>
</participant>
<reference typeCode="REFR">
    <externalDocument>
        <id root="b50b7910-7ffb-4f4c-bbe4-177ed68cbbf3" />
        <text mediaType="application/pdf">
            <reference value="AdvanceDirective.b50b7910-7ffb-4f4c-bbe4-
177ed68cbbf3.pdf" />
        </text>
        <versionNumber value="1" />
    </externalDocument>
</reference>
</observation>
</entry>

```

## 4.3 Advance Directive Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01  
(open)]

**Table 224: Advance Directive Organizer (V2) Contexts**

Contained By:	Contains:
<a href="#">Advance Directives Section (entries optional) (V3)</a> (optional) <a href="#">Advance Directives Section (entries required) (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This clinical statement groups a set of advance directive observations.

**Table 225: Advance Directive Organizer (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-28410</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1198-28411</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-28412</a>	
@root	1..1	SHALL		<a href="#">1198-28413</a>	2.16.840.1.113883.10.20.22.4.108
@extension	1..1	SHALL		<a href="#">1198-32876</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-28414</a>	
code	1..1	SHALL		<a href="#">1198-28415</a>	
@code	1..1	SHALL		<a href="#">1198-31230</a>	45473-6
@codeSystem	1..1	SHALL		<a href="#">1198-31231</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-28418</a>	
@code	1..1	SHALL		<a href="#">1198-31346</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
author	0..*	SHOULD		<a href="#">1198-32407</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
component	1..*	SHALL		<a href="#">1198-28420</a>	
observation	1..1	SHALL		<a href="#">1198-28421</a>	Advance Directive Observation (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2017-05-01)

1. **SHALL** contain exactly one [1..1] **@classCode="CLUSTER"** Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-28410).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-28411).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-28412) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.108"** (CONF:1198-28413).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32876).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-28414).

5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-28415).
  - a. This code **SHALL** contain exactly one [1..1] `@code="45473-6"` Advance directive - living will (CONF:1198-31230).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-31231).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-28418).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1198-31346).
7. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-32407).
8. **SHALL** contain at least one [1..\*] **component** (CONF:1198-28420) such that it
  - a. **SHALL** contain exactly one [1..1] Advance Directive Observation (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2017-05-01) (CONF:1198-28421).

**Figure 125: Advance Directive Organizer (V2) Example**

```
<entry>
  <!-- *** Advance Directive Organizer (V3) template -->
  <organizer classCode="CLUSTER" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.108" extension="2017-05-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.108" extension="2015-08-01"/>
    <id root="631F0E95-F055-4FA2-AF10-3AE036CAD2EC" extension="10.1.1"/>
    <code code="45473-6" displayName="advance directive - living will"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">
<originalText><reference value="#ADO1"></reference></originalText>
</code>
<statusCode code="completed"/>
<author>
  <templateId root="2.16.840.1.113883.10.20.22.4.119"/>
  <time value="20130807150000-0500"/>
  <assignedAuthor>
    <id extension="5555555551" root="2.16.840.1.113883.4.6"/>
    <code code="163W00000X" displayName="Registered nurse"
codeSystem="2.16.840.1.113883.6.101" codeSystemName="Healthcare Provider Taxonomy
(HIPAA)"/>
    <assignedPerson>
      <name>
        <given>Nurse</given>
        <family>Nightingale</family>
        <suffix>RN</suffix>
      </name>
    </assignedPerson>
    <representedOrganization classCode="ORG">
      <id root="2.16.840.1.113883.19.5"/>
      <name>Good Health Hospital</name>
    </representedOrganization>
  </assignedAuthor>
</author>
<component>
  <!-- ** Advance Directive Observation (V4) ** -->
  ...
</component>
<component>
  <!-- ** Advance Directive Observation (V4) ** -->
  ...
</component>
<component>
  <!-- ** Advance Directive Observation (V4) ** -->
  ...
</component>
</organizer>
</entry>
```

## 4.4 Age Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.31 (open) ]

**Table 226: Age Observation Contexts**

Contained By:	Contains:
<a href="#">Family History Observation (V3)</a> (optional) <a href="#">Problem Observation (V3)</a> (optional)	

This Age Observation represents the subject's age at onset of an event or observation. The age of a relative in a Family History Observation at the time of that observation could also be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime. However, a common scenario is that a patient will know the age of a relative when the relative had a certain condition or when the relative died, but will not know the actual year (e.g., "grandpa died of a heart attack at the age of 50"). Often times, neither precise dates nor ages are known (e.g., "cousin died of congenital heart disease as an infant").

**Table 227: Age Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31)					
@classCode	1..1	SHALL		<a href="#">81-7613</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-7614</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-7899</a>	
@root	1..1	SHALL		<a href="#">81-10487</a>	2.16.840.1.113883.10.20.22.4.3 1
code	1..1	SHALL		<a href="#">81-7615</a>	
@code	1..1	SHALL		<a href="#">81-16776</a>	445518008
@codeSystem	1..1	SHALL		<a href="#">81-26499</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">81-15965</a>	
@code	1..1	SHALL		<a href="#">81-15966</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	PQ	<a href="#">81-7617</a>	
@unit	1..1	SHALL	CS	<a href="#">81-7618</a>	urn:oid:2.16.840.1.113883.11.2 0.9.21 (AgePQ_UCUM)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-7613).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-7614).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-7899) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.31" (CONF:81-10487).
4. **SHALL** contain exactly one [1..1] code (CONF:81-7615).
  - a. This code **SHALL** contain exactly one [1..1] @code="445518008" Age At Onset (CONF:81-16776).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26499).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:81-15965).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-15966).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:81-7617).
  - a. This value **SHALL** contain exactly one [1..1] @unit, which **SHALL** be selected from ValueSet [AgePQ\\_UCUM](#) urn:oid:2.16.840.1.113883.11.20.9.21 **DYNAMIC** (CONF:81-7618).

**Table 228: AgePQ\_UCUM**

Value Set: AgePQ_UCUM urn:oid:2.16.840.1.113883.11.20.9.21 A value set of UCUM codes for representing age value units. Value Set Source: <a href="http://unitsofmeasure.org/ucum.html">http://unitsofmeasure.org/ucum.html</a>			
Code	Code System	Code System OID	Print Name
min	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Minute
h	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Hour
d	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Day
wk	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Week
mo	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Month
a	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Year

**Figure 126: Age Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.31" />
  <!-- Age observation -->
  <code code="445518008"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Age At Onset" />
  <statusCode code="completed" />
  <value xsi:type="PQ" value="57" unit="a" />
</observation>
```

## 4.5 Allergy Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01 (open)]

**Table 229: Allergy Concern Act (V3) Contexts**

Contained By:	Contains:
<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a> (optional) <a href="#">Allergies and Intolerances Section (entries required) (V3)</a> (required)	<a href="#">Allergy - Intolerance Observation (V2)</a> (required) <a href="#">Author Participation</a> (optional)

This template reflects an ongoing concern on behalf of the provider that placed the allergy on a patient's allergy list. As long as the underlying condition is of concern to the provider (i.e., as long as the allergy, whether active or resolved, is of ongoing concern and interest to the provider), the statusCode is "active". Only when the underlying allergy is no longer of concern is the statusCode set to "completed". The effectiveTime reflects the time that the underlying allergy was felt to be a concern.

The statusCode of the Allergy Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Allergy - Intolerance Observation is the definitive indication of whether or not the underlying allergy is resolved.

The effectiveTime/low of the Allergy Concern Act asserts when the concern became active. This equates to the time the concern was authored in the patient's chart. The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

**Table 230: Allergy Concern Act (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7469</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-7470</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7471</a>	
@root	1..1	SHALL		<a href="#">1198-10489</a>	2.16.840.1.113883.10.20.22.4.30
@extension	1..1	SHALL		<a href="#">1198-32543</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-7472</a>	
code	1..1	SHALL		<a href="#">1198-7477</a>	
@code	1..1	SHALL		<a href="#">1198-19158</a>	CONC
@codeSystem	1..1	SHALL		<a href="#">1198-32154</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6
statusCode	1..1	SHALL		<a href="#">1198-7485</a>	
@code	1..1	SHALL		<a href="#">1198-19086</a>	urn:oid:2.16.840.1.113883.11.20.9.19 (ProblemAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1198-7498</a>	
author	0..*	SHOULD		<a href="#">1198-31145</a>	<a href="#">Author Participation</a> ( <a href="#">identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119</a> )
entryRelationship	1..*	SHALL		<a href="#">1198-7509</a>	
@typeCode	1..1	SHALL		<a href="#">1198-7915</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-14925</a>	<a href="#">Allergy - Intolerance Observation (V2)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09</a> )

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7469).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7470).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7471) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.30" (CONF:1198-10489).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32543).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-7472).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-7477).
- a. This code **SHALL** contain exactly one [1..1] @code="CONC" Concern (CONF:1198-19158).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32154).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7485).
- a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet **ProblemAct statusCode** urn:oid:2.16.840.1.113883.11.20.9.19 **STATIC** (CONF:1198-19086).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-7498).
- a. If statusCode/@code="active" Active, then effectiveTime **SHALL** contain [1..1] low (CONF:1198-7504).
  - b. If statusCode/@code="completed" Completed, then effectiveTime **SHALL** contain [1..1] high (CONF:1198-10085).
8. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31145).
9. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-7509) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-7915).
  - b. **SHALL** contain exactly one [1..1] **Allergy - Intolerance Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09) (CONF:1198-14925).

**Table 231: ProblemAct statusCode**

Value Set: ProblemAct statusCode urn:oid:2.16.840.1.113883.11.20.9.19 A ValueSet of HL7 actStatus codes for use on the concern act Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>			
Code	Code System	Code System OID	Print Name
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Completed
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Active
suspended	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Suspended

**Figure 127: Allergy Concern Act (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
    <!-- ** Allergy Concern Act -->
    <templateId root="2.16.840.1.113883.10.20.22.4.30" extension="2015-08-01" />
    <id root="36e3e930-7b14-11db-9fe1-0800200c9a66" />
    <code code="CONC" codeSystem="2.16.840.1.113883.5.6" />
    <!-- The statusCode represents the need to continue tracking the allergy -->
    <!-- This is of ongoing concern to the provider -->
    <statusCode code="active" />
    <effectiveTime>
        <!-- The low value represents when the allergy was first recorded in the
            patient's chart -->
        <!-- Concern started being tracked as an active issue on May 1, 1998 -->
        <low value="199805011145-0800" />
    </effectiveTime>
    <author typeCode="AUT">
        <!-- Same as Concern effectiveTime/low -->
        <time value="199805011145-0800" />
        <assignedAuthor>
            <id extension="555555555" root="1.1.1.1.1.1.2" />
        </assignedAuthor>
    </author>
    <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Allergy observation -->
            <templateId root="2.16.840.1.113883.10.20.22.4.7" extension="2014-06-09" />
            <id root="4adc1020-7b14-11db-9fe1-0800200c9a66" />
            <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
            <!-- Observation statusCode represents the status of the act of observing -->
            <statusCode code="completed" />
            <effectiveTime>
                <!-- The low value reflects the date of onset of the allergy -->
                <!-- Based on patient symptoms, presumed onset is May 1, 1998 -->
                <low value="19980501" />
                <!-- The high value reflects when the allergy was known to be resolved
                    (and will generally be absent) -->
            </effectiveTime>
            <value xsi:type="CD" code="419199007" displayName="Allergy to substance"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
            <author typeCode="AUT">
                <time value="199805011145-0800" />
                <assignedAuthor>
                    <id extension="222223333" root="1.1.1.1.1.1.3" />
                </assignedAuthor>
            </author>
            <participant typeCode="CSM">
                <participantRole classCode="MANU">
                    <playingEntity classCode="MMAT">
                        <code code="70618" displayName="Penicillin"
codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />
                        </playingEntity>
                    </participantRole>
                </participant>
                <entryRelationship typeCode="MFST" inversionInd="true">
                    <observation classCode="OBS" moodCode="EVN">
                        <!-- ** Reaction observation -->

```

```

<templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09" />
<id root="4adc1020-7b14-11db-9fe1-0800200c9a64" />
<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
<statusCode code="completed" />
<effectiveTime>
    <low value="200802260800-0800" />
    <high value="2008022801200-0800" />
</effectiveTime>
<value xsi:type="CD" code="422587007" codeSystem="2.16.840.1.113883.6.96" displayName="Nausea" />
</observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

## 4.6 Allergy Status Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.28 (open) ]

**Table 232: Allergy Status Observation Contexts**

Contained By:	Contains:
<a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional)	

This template represents the status of the allergy indicating whether it is active, no longer active, or is an historic allergy. There can be only one allergy status observation per alert observation.

**Table 233: Allergy Status Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28)					
@classCode	1..1	SHALL		<a href="#">81-7318</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-7319</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-7317</a>	
@root	1..1	SHALL		<a href="#">81-10490</a>	2.16.840.1.113883.10.20.22.4.28
code	1..1	SHALL		<a href="#">81-7320</a>	
@code	1..1	SHALL		<a href="#">81-19131</a>	33999-4
@codeSystem	1..1	SHALL		<a href="#">81-26500</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">81-7321</a>	
@code	1..1	SHALL		<a href="#">81-19087</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CE	<a href="#">81-7322</a>	urn:oid:2.16.840.1.113883.3.88.12.80.68 (Problem Status)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-7318).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-7319).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7317) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.28"** (CONF:81-10490).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-7320).
  - a. This code **SHALL** contain exactly one [1..1] **@code="33999-4"** Status (CONF:81-19131).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26500).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-7321).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19087).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CE", where the code **SHALL** be selected from ValueSet [Problem Status](#) urn:oid:2.16.840.1.113883.3.88.12.80.68 **DYNAMIC** (CONF:81-7322).

**Table 234: Problem Status**

Value Set: Problem Status urn:oid:2.16.840.1.113883.3.88.12.80.68 A value set of SNOMED-CT codes reflecting state of existence. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
55561003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Active
73425007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Inactive
413322009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Resolved

**Figure 128: Allergy Status Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.28" />
  <!-- Allergy status observation template -->
  <code code="33999-4"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Status" />
  <statusCode code="completed" />
  <value xsi:type="CE" code="55561003"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Active" />
</observation>
```

## 4.7 Assessment Scale Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.69 (open) ]

**Table 235: Assessment Scale Observation Contexts**

Contained By:	Contains:
<a href="#">Sensory Status</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Mental Status Observation (V3)</a> (optional) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Assessment Scale Supporting Observation</a> (optional)

An assessment scale is a collection of observations that together yield a summary evaluation of a particular condition. Examples include the Braden Scale (assesses pressure ulcer risk), APACHE Score (estimates mortality in critically ill patients), Mini-Mental Status Exam (assesses cognitive function), APGAR Score (assesses the health of a newborn), and Glasgow Coma Scale (assesses coma and impaired consciousness).

**Table 236: Assessment Scale Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69)					
@classCode	1..1	SHALL		<a href="#">81-14434</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-14435</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-14436</a>	
@root	1..1	SHALL		<a href="#">81-14437</a>	2.16.840.1.113883.10.20.22.4.69
id	1..*	SHALL		<a href="#">81-14438</a>	
code	1..1	SHALL		<a href="#">81-14439</a>	
derivationExpr	0..1	MAY		<a href="#">81-14637</a>	
statusCode	1..1	SHALL		<a href="#">81-14444</a>	
@code	1..1	SHALL		<a href="#">81-19088</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">81-14445</a>	
value	1..1	SHALL		<a href="#">81-14450</a>	
interpretationCode	0..*	MAY		<a href="#">81-14459</a>	
translation	0..*	MAY		<a href="#">81-14888</a>	
author	0..*	MAY		<a href="#">81-14460</a>	
entryRelationship	0..*	SHOULD		<a href="#">81-14451</a>	
@typeCode	1..1	SHALL		<a href="#">81-16741</a>	COMP
observation	1..1	SHALL		<a href="#">81-16742</a>	<a href="#">Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.86)</a>
referenceRange	0..*	MAY		<a href="#">81-16799</a>	
observationRange	1..1	SHALL		<a href="#">81-16800</a>	
text	0..1	SHOULD		<a href="#">81-16801</a>	
reference	0..1	SHOULD		<a href="#">81-</a>	

				<a href="#">16802</a>	
@value	0..1	MAY		<a href="#">81-16803</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-14434).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-14435).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-14436) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.69"** (CONF:81-14437).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-14438).
5. **SHALL** contain exactly one [1..1] **code** (CONF:81-14439).
  - a. SHOULD be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) identifying the assessment scale (CONF:81-14440).

Such derivation expression can contain a text calculation of how the components total up to the summed score

6. **MAY** contain zero or one [0..1] **derivationExpr** (CONF:81-14637).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-14444).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19088).

Represents clinically effective time of the measurement, which may be when the measurement was performed (e.g., a BP measurement), or may be when sample was taken (and measured some time afterwards)

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:81-14445).
9. **SHALL** contain exactly one [1..1] **value** (CONF:81-14450).
10. **MAY** contain zero or more [0..\*] **interpretationCode** (CONF:81-14459).
  - a. The interpretationCode, if present, **MAY** contain zero or more [0..\*] **translation** (CONF:81-14888).
11. **MAY** contain zero or more [0..\*] **author** (CONF:81-14460).
12. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:81-14451) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** has component (CONF:81-16741).
  - b. **SHALL** contain exactly one [1..1] **Assessment Scale Supporting Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86) (CONF:81-16742).

The referenceRange/observationRange/text, if present, MAY contain a description of the scale (e.g., for a Pain Scale 1 to 10: 1 to 3 = little pain, 4 to 7= moderate pain, 8 to 10 = severe pain)

13. **MAY** contain zero or more [0..\*] **referenceRange** (CONF:81-16799).
  - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:81-16800).

The text may contain a description of the scale (e.g., for a Pain Scale 1 to 10: 1 to 3 = little pain, 4 to 7= moderate pain, 8 to 10 = severe pain)

- i. This observationRange **SHOULD** contain zero or one [0..1] **text** (CONF:81-16801).
  1. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:81-16802).
    - a. The reference, if present, **MAY** contain zero or one [0..1] **@value** (CONF:81-16803).
      - i. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-16804).

**Figure 129: Assessment Scale Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.69"/>
  <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>
  <code code="54614-3"
    displayName="Brief Interview for Mental Status"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <derivationExpr>Text description of the calculation</derivationExpr>
  <statusCode code="completed"/>
  <effectiveTime value="20120214"/>
  <!-- Summed score of the component values -->
  <value xsi:type="INT" value="7"/>
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
      . . .
    </observation>
  </entryRelationship>
</observation>
```

## 4.8 Assessment Scale Supporting Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.86 (open)]

**Table 237: Assessment Scale Supporting Observation Contexts**

Contained By:	Contains:
<a href="#">Assessment Scale Observation</a> (optional)	

An Assessment Scale Supporting Observation represents the components of a scale used in an Assessment Scale Observation. The individual parts that make up the component may be a group of cognitive or functional status observations.

**Table 238: Assessment Scale Supporting Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86)					
@classCode	1..1	SHALL		<a href="#">81-16715</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-16716</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-16722</a>	
@root	1..1	SHALL		<a href="#">81-16723</a>	2.16.840.1.113883.10.20.22.4.86
id	1..*	SHALL		<a href="#">81-16724</a>	
code	1..1	SHALL		<a href="#">81-19178</a>	
@code	1..1	SHALL		<a href="#">81-19179</a>	
statusCode	1..1	SHALL		<a href="#">81-16720</a>	
@code	1..1	SHALL		<a href="#">81-19089</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..*	SHALL		<a href="#">81-16754</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-16715).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-16716).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-16722) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.86"** (CONF:81-16723).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-16724).
5. **SHALL** contain exactly one [1..1] **code** (CONF:81-19178).
  - a. This code **SHALL** contain exactly one [1..1] **@code** (CONF:81-19179).
    - i. Such that the **@code** **SHALL** be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) and represents components of the scale (CONF:81-19180).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-16720).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19089).
7. **SHALL** contain at least one [1..\*] **value** (CONF:81-16754).

- a. If xsi:type="CD", **MAY** have a translation code to further specify the source if the instrument has an applicable code system and value set for the integer (CONF:14639) (CONF:81-16755).

**Figure 130: Assessment Scale Supporting Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
  <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
  <code code="248240001" displayName="motor response"
        codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"/>
  <statusCode code="completed"/>
  <value xsi:type="INT" value="3"/>
</observation>
```

## 4.9 Authorization Activity

[act: identifier urn:oid:2.16.840.1.113883.10.20.1.19 (open)]

An Authorization Activity represents authorizations or pre-authorizations currently active for the patient for the particular payer.

Authorizations are represented using an act subordinate to the policy or program that provided it. The authorization refers to the policy or program. Authorized treatments can be grouped into an organizer class, where common properties, such as the reason for the authorization, can be expressed. Subordinate acts represent what was authorized.

**Table 239: Authorization Activity Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.1.19)					
@classCode	1..1	SHALL		<a href="#">81-8944</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-8945</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
templateId	1..1	SHALL		<a href="#">81-8946</a>	
@root	1..1	SHALL		<a href="#">81-10529</a>	2.16.840.1.113883.10.20.1.19
id	1..1	SHALL		<a href="#">81-8947</a>	
entryRelationship	1..*	SHALL		<a href="#">81-8948</a>	
@typeCode	1..1	SHALL		<a href="#">81-8949</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ

1. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8944).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8945).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8946) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.1.19" (CONF:81-10529).
4. **SHALL** contain exactly one [1..1] **id** (CONF:81-8947).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:81-8948) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-8949).
  - b. The target of an authorization activity with act/entryRelationship/@typeCode="SUBJ" **SHALL** be a clinical statement with moodCode="PRMS" Promise (CONF:81-8951).
  - c. The target of an authorization activity **MAY** contain one or more performer, to indicate the providers that have been authorized to provide treatment (CONF:81-8952).

**Figure 131: Authorization Activity Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.1.19"/>
  <id root="f4dce790-8328-11db-9fe1-0800200c9a66"/>
  <code nullFlavor="NA" />
  <entryRelationship typeCode="SUBJ">
    <procedure classCode="PROC" moodCode="PRMS">
      <code code="73761001"
            codeSystem="2.16.840.1.113883.6.96"
            codeSystemName="SNOMED CT"
            displayName="Colonoscopy"/>
    </procedure>
  </entryRelationship>
</act>
```

## 4.10 Boundary Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.11 (open) ]

**Table 240: Boundary Observation Contexts**

Contained By:	Contains:
<a href="#">Referenced Frames Observation</a> (required)	

A Boundary Observation contains a list of integer values for the referenced frames of a DICOM multiframe image SOP instance. It identifies the frame numbers within the referenced SOP instance to which the reference applies. The CDA Boundary Observation numbers frames using the same convention as DICOM, with the first frame in the referenced object being Frame 1. A Boundary Observation must be used if a referenced DICOM SOP instance is a multiframe image and the reference does not apply to all frames.

**Table 241: Boundary Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.11)					
@classCode	1..1	SHALL		<a href="#">81-9282</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-9283</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
code	1..1	SHALL		<a href="#">81-9284</a>	
@code	1..1	SHALL		<a href="#">81-19157</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 113036
value	1..*	SHALL	INT	<a href="#">81-9285</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9282).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9283).
3. **SHALL** contain exactly one [1..1] **code** (CONF:81-9284).
  - a. This code **SHALL** contain exactly one [1..1] **@code="113036"** Frames for Display (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4 **STATIC**) (CONF:81-19157).
4. **SHALL** contain at least one [1..\*] **value** with @xsi:type="INT" (CONF:81-9285).

**Figure 132: Boundary Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.11"/>
  <code code="113036" codeSystem="1.2.840.10008.2.16.4"
    displayName="Frames for Display"/>
  <value xsi:type="INT" value="1"/>
</observation>
```

## 4.11 Caregiver Characteristics

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.72 (open) ]

**Table 242: Caregiver Characteristics Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	

This clinical statement represents a caregiver's willingness to provide care and the abilities of that caregiver to provide assistance to a patient in relation to a specific need.

**Table 243: Caregiver Characteristics Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72)					
@classCode	1..1	SHALL		<a href="#">81-14219</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-14220</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-14221</a>	
@root	1..1	SHALL		<a href="#">81-14222</a>	2.16.840.1.113883.10.20.22.4.72
id	1..*	SHALL		<a href="#">81-14223</a>	
code	1..1	SHALL		<a href="#">81-14230</a>	
statusCode	1..1	SHALL		<a href="#">81-14233</a>	
@code	1..1	SHALL		<a href="#">81-19090</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-14599</a>	
participant	1..*	SHALL		<a href="#">81-14227</a>	
@typeCode	1..1	SHALL		<a href="#">81-26451</a>	IND
time	0..1	MAY		<a href="#">81-14830</a>	
low	1..1	SHALL		<a href="#">81-14831</a>	
high	0..1	MAY		<a href="#">81-14832</a>	
participantRole	1..1	SHALL		<a href="#">81-14228</a>	
@classCode	1..1	SHALL		<a href="#">81-14229</a>	CAREGIVER

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-14219).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-14220).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-14221) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.72"** (CONF:81-14222).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-14223).
5. **SHALL** contain exactly one [1..1] **code** (CONF:81-14230).

- a. This code **MAY** be drawn from LOINC (CodeSystem: LOINC 2.16.840.1.113883.6.1) or **MAY** be bound to ASSERTION (CodeSystem: ActCode 2.16.840.1.113883.5.4 STATIC) (CONF:81-26513).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-14233).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19090).
- 7. **SHALL** contain exactly one [1..1] **value** with `@xsi:type="CD"` (CONF:81-14599).
  - a. The code **SHALL** be selected from LOINC (codeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:81-14600).
- 8. **SHALL** contain at least one [1..\*] **participant** (CONF:81-14227).
  - a. Such participants **SHALL** contain exactly one [1..1] `@typeCode="IND"` (CONF:81-26451).
  - b. Such participants **MAY** contain zero or one [0..1] **time** (CONF:81-14830).
    - i. The time, if present, **SHALL** contain exactly one [1..1] **low** (CONF:81-14831).
    - ii. The time, if present, **MAY** contain zero or one [0..1] **high** (CONF:81-14832).
  - c. Such participants **SHALL** contain exactly one [1..1] **participantRole** (CONF:81-14228).
    - i. This participantRole **SHALL** contain exactly one [1..1] `@classCode="CAREGIVER"` (CONF:81-14229).

**Figure 133: Caregiver Characteristics Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.72"/>
  <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0c"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="422615001"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="caregiver difficulty providing
    physical care"/>
  <participant typeCode="IND">
    <participantRole classCode="CAREGIVER">
      <code code="MTH" codeSystem="2.16.840.1.113883.5.111"
        displayName="Mother"/>
    </participantRole>
  </participant>
</observation>
```

## 4.12 Characteristics of Home Environment

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.109 (open) ]

**Table 244: Characteristics of Home Environment Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	

This template represents the patient's home environment including, but not limited to, type of residence (trailer, single family home, assisted living), living arrangement (e.g., alone, with parents), and housing status (e.g., evicted, homeless, home owner).

**Table 245: Characteristics of Home Environment Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109)					
@classCode	1..1	SHALL		<a href="#">1098-27890</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-27891</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-27892</a>	
@root	1..1	SHALL		<a href="#">1098-27893</a>	2.16.840.1.113883.10.20.22.4.109
id	1..*	SHALL		<a href="#">1098-27894</a>	
code	1..1	SHALL		<a href="#">1098-31352</a>	
@code	1..1	SHALL		<a href="#">1098-31353</a>	75274-1
@codeSystem	1..1	SHALL		<a href="#">1098-31354</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-27901</a>	
@code	1..1	SHALL		<a href="#">1098-27902</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1098-28823</a>	urn:oid:2.16.840.1.113883.11.2 0.9.49 (Residence and Accommodation Type)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-27890).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-27891).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-27892) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.109" (CONF:1098-27893).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-27894).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31352).
  - a. This code **SHALL** contain exactly one [1..1] @code="75274-1" Characteristics of residence (CONF:1098-31353).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31354).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-27901).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-27902).
7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Residence and Accommodation Type](#) urn:oid:2.16.840.1.113883.11.20.9.49 **DYNAMIC** (CONF:1098-28823).

**Table 246: Residence and Accommodation Type**

<p>Value Set: Residence and Accommodation Type urn:oid:2.16.840.1.113883.11.20.9.49</p> <p>A value set of SNOMED-CT codes descending from "365508006" "Residence and accommodation circumstances - finding" reflecting type of residence, status of accommodations, living situation and environment.</p> <p>Value Set Source:</p> <p><a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.9.49">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.9.49</a></p>			
Code	Code System	Code System OID	Print Name
424661000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	cluttered living space (finding)
160708008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	stairs in house (finding)
160751007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	eviction from dwelling (finding)
423859003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	crowded living space (finding)
160720000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	harassment by landlord (finding)
105529008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	lives alone (finding)
60585007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	slum area living (finding)
365508006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	unsatisfactory living conditions (finding)
422491004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	housing contains exposed wiring (finding)
...			

**Figure 134: Characteristics of Home Environment Example**

```

<observation classCode="OBS" moodCode="EVN">
    <!-- ** Characteristics of Home Environment** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.109" />
    <id root="37f76c51-6411-4e1d-8a37-957fd49d2ceg" />
    <code code="75274-1" codeSystem="2.16.840.1.113883.6.1"
        displayName="Characteristics of residence" />
    <statusCode code="completed" />
    <effectiveTime value="20130312" />
    <value xsi:type="CD" code="308899009" displayName="unsatisfactory living conditions
(finding)" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
</observation>

```

## 4.13 Code Observations

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.13 (open) ]

**Table 247: Code Observations Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">SOP Instance Observation</a> (optional) <a href="#">Quantity Measurement Observation</a> (optional)

DICOM Template 2000 specifies that Imaging Report Elements of Value Type Code are contained in sections. The Imaging Report Elements are inferred from Basic Diagnostic Imaging Report Observations that consist of image references and measurements (linear, area, volume, and numeric). Coded DICOM Imaging Report Elements in this context are mapped to CDA-coded observations that are section components and are related to the SOP Instance Observations (templateId 2.16.840.1.113883.10.20.6.2.8) or Quantity Measurement Observations (templateId 2.16.840.1.113883.10.20.6.2.14) by the SPRT (Support) act relationship.

**Table 248: Code Observations Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.13)					
@classCode	1..1	SHALL		<a href="#">81-9304</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-9305</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-15523</a>	
@root	1..1	SHALL		<a href="#">81-15524</a>	2.16.840.1.113883.10.20.6.2.13
code	1..1	SHALL		<a href="#">81-19181</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9309</a>	
value	1..1	SHALL		<a href="#">81-9308</a>	
entryRelationship	0..*	MAY		<a href="#">81-9311</a>	
@typeCode	1..1	SHALL		<a href="#">81-9312</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">81-16083</a>	<a href="#">SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.8)</a>
entryRelationship	0..*	MAY		<a href="#">81-9314</a>	
@typeCode	1..1	SHALL		<a href="#">81-9315</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">81-16084</a>	<a href="#">Quantity Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.14)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9304).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9305).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-15523).
  - a. This templateId **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.6.2.13"** (CONF:81-15524).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-19181).
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9309).

6. **SHALL** contain exactly one [1..1] **value** (CONF:81-9308).
7. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9311) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9312).
  - b. **SHALL** contain exactly one [1..1] SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:81-16083).
8. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9314) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9315).
  - b. **SHALL** contain exactly one [1..1] Quantity Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.14) (CONF:81-16084).
9. Code Observations **SHALL** be rendered into section/text in separate paragraphs (CONF:81-9310).

**Figure 135: Code Observations Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.13"/>
  <code code="18782-3" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Study observation"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="309530007"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Hilar mass"/>
  <!-- entryRelationship elements referring to SOP Instance Observations
       or Quantity Measurement Observations may appear here -->
</observation>
```

## 4.14 Cognitive Status Problem Observation (**DEPRECATED**)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.73:2014-06-09  
(open)]

**Table 249: Cognitive Status Problem Observation (**DEPRECATED**) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional)	

A cognitive status problem observation is a clinical statement that describes a patient's cognitive condition, findings, or symptoms. Examples of cognitive problem observations are inability to recall, amnesia, dementia, and aggressive behavior.

A cognitive problem observation is a finding or medical condition. This is different from a cognitive result observation, which is a response to a question that provides insight into the patient's cognitive status, judgement, comprehension ability, or response speed.

THIS TEMPLATE HAS BEEN DEPRECATED AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for deprecation:** Cognitive Status Problem Observation has been merged, without loss of expressivity, into Mental Status Observation (2.16.840.1.113883.10.20.22.4.74).

**Table 250: Cognitive Status Problem Observation (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.73:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-14319</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14320</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1098-14344</a>	
templateId	1..1	SHALL		<a href="#">1098-14346</a>	
@root	1..1	SHALL		<a href="#">1098-14347</a>	2.16.840.1.113883.10.20.22.4.73
@extension	1..1	SHALL		<a href="#">1098-32600</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-14321</a>	
code	1..1	SHALL		<a href="#">1098-14804</a>	
@code	0..1	SHOULD		<a href="#">1098-14805</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 373930000
text	0..1	SHOULD		<a href="#">1098-14341</a>	
reference	0..1	SHOULD		<a href="#">1098-15532</a>	
@value	0..1	SHOULD		<a href="#">1098-15533</a>	
statusCode	1..1	SHALL		<a href="#">1098-14323</a>	
@code	1..1	SHALL		<a href="#">1098-19091</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-14324</a>	
low	1..1	SHALL		<a href="#">1098-26458</a>	
high	0..1	MAY		<a href="#">1098-26459</a>	
value	1..1	SHALL	CD	<a href="#">1098-14349</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
methodCode	0..*	MAY		<a href="#">1098-14693</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14319).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14320).

Use negationInd="true" to indicate that the problem was not observed.

3. **MAY** contain zero or one [0..1] @negationInd (CONF:1098-14344).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-14346) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.73" (CONF:1098-14347).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32600).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1098-14321).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1098-14804).
  - a. This code **SHOULD** contain zero or one [0..1] @code="373930000" Cognitive function finding (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14805).
7. **SHOULD** contain zero or one [0..1] **text** (CONF:1098-14341).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-15532).
    - i. The reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:1098-15533).
      1. SHALL begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-15534).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-14323).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19091).
9. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-14324).

The value of effectiveTime/low represents onset date.

- a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **low** (CONF:1098-26458).

If the problem is resolved, record the resolution date in effectiveTime/high. If the problem is known to be resolved but the resolution date is not known, use @nullFlavor="UNK". If the problem is not resolved, do not include the high element.

- b. The effectiveTime, if present, **MAY** contain zero or one [0..1] **high** (CONF:1098-26459).
10. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-14349).
11. **MAY** contain zero or more [0..\*] **methodCode** (CONF:1098-14693).

**Table 251: Problem**

Value Set: Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 A value set of SNOMED-CT codes limited to terms descending from the Clinical Findings (404684003) or Situation with Explicit Context (243796009) hierarchies. Value Set Source: <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.7.4">http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.7.4</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
46635009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	diabetes mellitus type 1
234422006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	acute intermittent porphyria
31712002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	primary biliary cirrhosis
302002000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	difficulty moving
15188001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	hearing loss
129851009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	alteration in bowel elimination
247472004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	hives
39579001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	anaphylaxis
274945004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	AA amyloidosis (disorder)
129851009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	alteration in comfort: pain
...			

## 4.15 Comment Activity

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.64 (open) ]

**Table 252: Comment Activity Contexts**

<b>Contained By:</b>	<b>Contains:</b>
	<a href="#">Author Participation</a> (optional)

Comments are free text data that cannot otherwise be recorded using data elements already defined by this specification. They are not to be used to record information that can be recorded elsewhere. For example, a free text description of the severity of an allergic reaction would not be recorded in a comment.

**Table 253: Comment Activity Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.64)					
@classCode	1..1	SHALL		<a href="#">81-9425</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-9426</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9427</a>	
@root	1..1	SHALL		<a href="#">81-10491</a>	2.16.840.1.113883.10.20.22.4.64
code	1..1	SHALL		<a href="#">81-9428</a>	
@code	1..1	SHALL		<a href="#">81-19159</a>	48767-8
@codeSystem	1..1	SHALL		<a href="#">81-26501</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		<a href="#">81-9430</a>	
reference	1..1	SHALL		<a href="#">81-15967</a>	
@value	1..1	SHALL		<a href="#">81-15968</a>	
reference/@value	1..1	SHALL		<a href="#">81-9431</a>	
author	0..1	SHOULD		<a href="#">81-9433</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9425).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9426).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9427) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.64"** (CONF:81-10491).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9428).
  - a. This code **SHALL** contain exactly one [1..1] **@code="48767-8"** Annotation Comment (CONF:81-19159).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26501).
5. **SHALL** contain exactly one [1..1] **text** (CONF:81-9430).
  - a. This text **SHALL** contain exactly one [1..1] **reference** (CONF:81-15967).

- i. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:81-15968).
- 1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-15969).
- b. This text **SHALL** contain exactly one [1..1] **reference/@value** (CONF:81-9431).
- 6. **SHOULD** contain zero or one [0..1] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:81-9433).
- 7. Data elements defined elsewhere in the specification **SHALL NOT** be recorded using the Comment Activity (CONF:81-9429).

**Figure 136: Comment Activity Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.64"/>
  <code code="48767-8" displayName="Annotation Comment"
    codeSystemName="LOINC"
    codeSystem="2.16.840.1.113883.6.1"/>
  <text>The patient stated that he was looking forward to an upcoming
vacation to New York with his family. He was concerned that he may
not have enough medication for the trip. An additional prescription
was provided to cover that period of time.
    <reference value="#PntrtoSectionText"/>
  </text>
  <author>
    <time value="20050329224411+0500"/>
    <assignedAuthor>
      <id extension="KP00017" root="2.16.840.1.113883.19.5"/>
      <addr>
        <streetAddressLine>21 North Ave.</streetAddressLine>
        <city>Burlington</city>
        <state>MA</state>
        <postalCode>02368</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel:(555) 555-1003"/>
      <assignedPerson>
        <name>
          <given>Henry</given>
          <family>Seven</family>
        </name>
      </assignedPerson>
    </assignedAuthor>
  </author>
</act>

```

## 4.16 Coverage Activity (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2015-08-01 (open) ]

**Table 254: Coverage Activity (V3) Contexts**

Contained By:	Contains:
<a href="#">Payers Section (V3)</a> (optional)	<a href="#">Policy Activity (V3)</a> (required)

A Coverage Activity groups the policy and authorization acts within a Payers Section to order the payment sources. A Coverage Activity contains one or more Policy Activities, each of which contains zero or more Authorization Activities. The Coverage Activity id is the ID from the patient's insurance card. The sequenceNumber/@value shows the policy order of preference.

**Table 255: Coverage Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8872</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-8873</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8897</a>	
@root	1..1	SHALL		<a href="#">1198-10492</a>	2.16.840.1.113883.10.20.22.4.60
@extension	1..1	SHALL		<a href="#">1198-32596</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8874</a>	
code	1..1	SHALL		<a href="#">1198-8876</a>	
@code	1..1	SHALL		<a href="#">1198-19160</a>	48768-6
@codeSystem	1..1	SHALL		<a href="#">1198-32156</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-8875</a>	
@code	1..1	SHALL		<a href="#">1198-19094</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
entryRelationship	1..*	SHALL		<a href="#">1198-8878</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8879</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
sequenceNumber	0..1	MAY		<a href="#">1198-17174</a>	
@value	1..1	SHALL		<a href="#">1198-17175</a>	
act	1..1	SHALL		<a href="#">1198-15528</a>	<a href="#">Policy Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8872).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8873).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8897) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.60" (CONF:1198-10492).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32596).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8874).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-8876).
- a. This code **SHALL** contain exactly one [1..1] @code="48768-6" Payment sources (CONF:1198-19160).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32156).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8875).
- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19094).
7. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-8878) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8879).
  - b. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1198-17174).
    - i. The sequenceNumber, if present, **SHALL** contain exactly one [1..1] @value (CONF:1198-17175).
  - c. **SHALL** contain exactly one [1..1] **Policy Activity (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01) (CONF:1198-15528).

**Figure 137: Coverage Activity (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.60" extension="2015-08-01" />
  <id root="1fe2cd0-7aad-11db-9fe1-0800200c9a66" />
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Payment sources" />
  <statusCode code="completed" />
  <entryRelationship typeCode="COMP">
    <act classCode="ACT" moodCode="EVN">
      <sequenceNumber value="2" />
      <templateId root="2.16.840.1.113883.10.20.22.4.61" extension="2015-08-01" />
      . . .
    </act>
  </entryRelationship>
</act>

```

## 4.17 Criticality Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.145 (open) ]

**Table 256: Criticality Observation Contexts**

Contained By:	Contains:
<a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional)	

This observation represents the gravity of the potential risk for future life-threatening adverse reactions when exposed to a substance known to cause an adverse reaction in that individual. When the worst case result is assessed to have a life-threatening or organ system threatening potential, it is considered to be of high criticality.

**Table 257: Criticality Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145)					
@classCode	1..1	SHALL		<a href="#">81-32921</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-32922</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-32918</a>	
@root	1..1	SHALL		<a href="#">81-32923</a>	2.16.840.1.113883.10.20.22.4.145
code	1..1	SHALL		<a href="#">81-32919</a>	
@code	1..1	SHALL		<a href="#">81-32925</a>	82606-5
@codeSystem	1..1	SHALL		<a href="#">81-32926</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">81-32920</a>	
@code	1..1	SHALL		<a href="#">81-32927</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-32928</a>	urn:oid:2.16.840.1.113883.1.11.20549 (Criticality Observation)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-32921).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-32922).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-32918) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.145" (CONF:81-32923).
- 4. **SHALL** contain exactly one [1..1] **code** (CONF:81-32919).
  - a. This code **SHALL** contain exactly one [1..1] @code="82606-5" Criticality (CONF:81-32925).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32926).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-32920).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-32927).
- 6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Criticality Observation](#) urn:oid:2.16.840.1.113883.1.11.20549 **STATIC** 2015-08-01 (CONF:81-32928).

**Table 258: Criticality Observation**

Value Set: Criticality Observation urn:oid:2.16.840.1.113883.1.11.20549 A clinical judgment as to the worst case result of a future exposure (including substance administration).			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
CRITL	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	Low criticality
CRITH	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	High criticality
CRITU	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	Unable to assess criticality

**Figure 138: Criticality Observation Example**

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.145"/>
  <code code="82606-5" codeSystem="2.16.840.1.113883.6.1"
        displayName="Criticality" />
  <text>
    <reference value="#criticality"/>
  </text>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="High" displayName="High Criticality - NEED PROPER
    CODE" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"/>
</observation>

```

## 4.18 Cultural and Religious Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.111 (open) ]

**Table 259: Cultural and Religious Observation Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	

This template represents a patient's spiritual, religious, and cultural belief practices, such as a kosher diet or fasting ritual. `religiousAffiliationCode` in the document header captures only the patient's religious affiliation.

**Table 260: Cultural and Religious Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111)					
@classCode	1..1	SHALL		<a href="#">1098-27924</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-27925</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-27926</a>	
@root	1..1	SHALL		<a href="#">1098-27927</a>	2.16.840.1.113883.10.20.22.4.111
id	1..*	SHALL		<a href="#">1098-27928</a>	
code	1..1	SHALL		<a href="#">1098-27929</a>	
@code	1..1	SHALL		<a href="#">1098-27930</a>	75281-6
@codeSystem	1..1	SHALL		<a href="#">1098-27931</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-27936</a>	
@code	1..1	SHALL		<a href="#">1098-27937</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">1098-28442</a>	

1. **SHALL** contain exactly one [1..1] `@classCode="OBS"` Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-27924).
2. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-27925).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-27926) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.111" (CONF:1098-27927).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-27928).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-27929).
  - a. This code **SHALL** contain exactly one [1..1] @code="75281-6" Personal belief (CONF:1098-27930).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-27931).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-27936).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1098-27937).
7. **SHALL** contain exactly one [1..1] **value** (CONF:1098-28442).
  - a. If xsi:type is CD, **SHALL** contain exactly one 1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED-CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:1098-32487).

**Figure 139: Cultural and Religious Observation Example**

```
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <!-- **Cultural and Religious Observation *-->
    <templateId root="2.16.840.1.113883.10.20.22.4.111" />
    <id root="37f76c51-6411-4e1d-8a37-957fd49d2cef" />
    <code code="75281-6" codeSystem="2.16.840.1.113883.6.1"
          displayName="Personal belief" />
    <statusCode code="completed" />
    <effectiveTime>
      <low value="20130312" />
    </effectiveTime>
    <value xsi:type="ST">Does not accept blood transfusions, or donates, or
      stores blood for transfusion.</value>
  </observation>
</entry>
```

## 4.19 Deceased Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01  
(open) ]

**Table 261: Deceased Observation (V3) Contexts**

Contained By:	Contains:
	<a href="#">Problem Observation (V3)</a> (optional)

This template represents the observation that a patient has died. It also represents the cause of death, indicated by an entryRelationship type of 'CAUS'. This template allows for more specific representation of data than is available with the use of dischargeDispositionCode.

**Table 262: Deceased Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14851</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-14852</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14871</a>	
@root	1..1	SHALL		<a href="#">1198-14872</a>	2.16.840.1.113883.10.20.22.4.79
@extension	1..1	SHALL		<a href="#">1198-32541</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-14873</a>	
code	1..1	SHALL		<a href="#">1198-14853</a>	
@code	1..1	SHALL		<a href="#">1198-19135</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1198-32158</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1198-14854</a>	
@code	1..1	SHALL		<a href="#">1198-19095</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-14855</a>	
low	1..1	SHALL		<a href="#">1198-14874</a>	
value	1..1	SHALL	CD	<a href="#">1198-14857</a>	
@code	1..1	SHALL		<a href="#">1198-15142</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009
entryRelationship	0..1	SHOULD		<a href="#">1198-14868</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14875</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = CAUS
@inversionInd	1..1	SHALL		<a href="#">1198-32900</a>	true
observation	1..1	SHALL		<a href="#">1198-14870</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] `@classCode="OBS"` Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14851).
2. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14852).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:1198-14871) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.79"` (CONF:1198-14872).
  - b. **SHALL** contain exactly one [1..1] `@extension="2015-08-01"` (CONF:1198-32541).
4. **SHALL** contain at least one [1..\*] `id` (CONF:1198-14873).
5. **SHALL** contain exactly one [1..1] `code` (CONF:1198-14853).
  - a. This code **SHALL** contain exactly one [1..1] `@code="ASSERTION"` Assertion (CONF:1198-19135).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.5.4"` (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1198-32158).
6. **SHALL** contain exactly one [1..1] `statusCode` (CONF:1198-14854).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19095).
7. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:1198-14855).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] `low` (CONF:1198-14874).
8. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:1198-14857).
  - a. This value **SHALL** contain exactly one [1..1] `@code="419099009"` Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1198-15142).
9. **SHOULD** contain zero or one [0..1] `entryRelationship` (CONF:1198-14868) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="CAUS"` Is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14875).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` True (CONF:1198-32900).
  - c. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14870).

**Figure 140: Deceased Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.79" extension="2015-08-01" />
  <id root="6898fae0-5c8a-11db-b0de-0800200c9a77" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20100303" />
  </effectiveTime>
  <value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96"
  displayName="Dead" />
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      ...
      ...
    </observation>
  </entry>
</observation>
```

## 4.20 Discharge Medication (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01 (open)]

**Table 263: Discharge Medication (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Medications Section (entries optional) (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (required)
<a href="#">Discharge Medications Section (entries required) (V3)</a> (required)	

This template represents medications that the patient is intended to take (or stop) after discharge.

**Table 264: Discharge Medication (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01)					
@classCode	1..1	SHALL		<a href="#">1198-7689</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-7690</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-16760</a>	
@root	1..1	SHALL		<a href="#">1198-16761</a>	2.16.840.1.113883.10.20.22.4.35
@extension	1..1	SHALL		<a href="#">1198-32513</a>	2016-03-01
code	1..1	SHALL		<a href="#">1198-7691</a>	
@code	1..1	SHALL		<a href="#">1198-19161</a>	10183-2
@codeSystem	1..1	SHALL		<a href="#">1198-32159</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">1198-32952</a>	
@code	1..1	SHALL		<a href="#">1198-32953</a>	75311-1
@codeSystem	1..1	SHALL		<a href="#">1198-32954</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1198-32779</a>	
@code	1..1	SHALL		<a href="#">1198-32780</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
entryRelationship	1..*	SHALL		<a href="#">1198-7692</a>	
@typeCode	1..1	SHALL		<a href="#">1198-7693</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
substanceAdministration	1..1	SHALL		<a href="#">1198-15525</a>	<a href="#">Medication Activity (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7689).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7690).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-16760) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.35" (CONF:1198-16761).
  - b. **SHALL** contain exactly one [1..1] @extension="2016-03-01" (CONF:1198-32513).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-7691).
- a. This code **SHALL** contain exactly one [1..1] @code="10183-2" Hospital discharge medication (CONF:1198-19161).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32159).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32952) such that it
    - i. **SHALL** contain exactly one [1..1] @code="75311-1" Discharge Medication (CONF:1198-32953).
    - ii. **SHALL** contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32954).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-32779).
- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-32780).
6. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-7692) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-7693).
  - b. **SHALL** contain exactly one [1..1] **Medication Activity (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1198-15525).

**Figure 141: Discharge Medication (V2) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.35" extension="2014-06-09" />
  <code code="75311-1" codeSystem="2.16.840.1.113883.6.1"/>
  <statusCode code="completed" />
  <entryRelationship typeCode="SUBJ">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
      ...
    </substanceAdministration>
  </entryRelationship>
</act>

```

## 4.21 Drug Monitoring Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.123 (open) ]

**Table 265: Drug Monitoring Act Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	<a href="#">US Realm Person Name (PN.US.FIELDED)</a> (required)

This template represents the act of monitoring the patient's medication and includes a participation to record the person responsible for monitoring the medication. The prescriber of the medication is not necessarily the same person or persons monitoring the drug. The effectiveTime indicates the time when the activity is intended to take place.

For example, a cardiologist may prescribe a patient Warfarin. The patient's primary care provider may monitor the patient's INR and adjust the dosing of the Warfarin based on these laboratory results. Here the person designated to monitor the drug is the primary care provider.

**Table 266: Drug Monitoring Act Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123)					
@classCode	1..1	SHALL		<a href="#">1098-30823</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-28656</a>	INT
templateId	1..1	SHALL		<a href="#">1098-28657</a>	
@root	1..1	SHALL		<a href="#">1098-28658</a>	2.16.840.1.113883.10.20.22.4.123
id	1..*	SHALL		<a href="#">1098-31920</a>	
code	1..1	SHALL		<a href="#">1098-28660</a>	
@code	1..1	SHALL		<a href="#">1098-30818</a>	395170001
@codeSystem	1..1	SHALL		<a href="#">1098-30819</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1098-31921</a>	
@code	1..1	SHALL		<a href="#">1098-32358</a>	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	1..1	SHALL		<a href="#">1098-31922</a>	
participant	1..*	SHALL		<a href="#">1098-28661</a>	
@typeCode	1..1	SHALL		<a href="#">1098-28663</a>	RESP
participantRole	1..1	SHALL		<a href="#">1098-28662</a>	
@classCode	1..1	SHALL		<a href="#">1098-28664</a>	ASSIGNED
id	1..*	SHALL		<a href="#">1098-28665</a>	
playingEntity	1..1	SHALL		<a href="#">1098-28667</a>	
@classCode	1..1	SHALL		<a href="#">1098-28668</a>	PSN
name	1..1	SHALL		<a href="#">1098-28669</a>	US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.1.1)

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30823).
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CONF:1098-28656).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-28657) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.123"** (CONF:1098-28658).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31920).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-28660).
  - a. This code **SHALL** contain exactly one [1..1] **@code="395170001"** medication monitoring (regime/therapy) (CONF:1098-30818).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30819).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31921).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1098-32358).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31922).
8. **SHALL** contain at least one [1..\*] **participant** (CONF:1098-28661) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RESP"** (CONF:1098-28663).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-28662).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** (CONF:1098-28664).
    - ii. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:1098-28665).
    - iii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1098-28667).
      1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode="PSN"** (CONF:1098-28668).
      2. This playingEntity **SHALL** contain exactly one [1..1] [US Realm Person Name \(PN.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1098-28669).

**Table 267: ActStatus**

Value Set: ActStatus urn:oid:2.16.840.1.113883.1.11.15933 Contains the names (codes) for each of the states in the state-machine of the RIM Act class. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion</a>			
Code	Code System	Code System OID	Print Name
normal	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	normal
aborted	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	completed
held	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	held
new	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	new
suspended	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	suspended
nullified	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	nullified
obsolete	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	obsolete

**Figure 142: Drug Monitoring Act Example**

```

<entryRelationship typeCode="COMP">
    <!-- **DRUG MONITORING ACT **-->
    <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.123" />
        <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
        <code code="395170001" displayName="medication monitoring(regime/therapy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
        <statusCode code="completed" />
        <effectiveTime xsi:type="IVL_TS">
            <low value="20130615" />
            <high value="20130715" />
        </effectiveTime>
        <participant typeCode="RESP">
            <participantRole classCode="ASSIGNED">
                <id root="2a620155-9d11-439e-92b3-5d9815ff4ee5" />
                <playingEntity classCode="PSN">
                    <name>
                        <given>Listener</given>
                        <family>Larry</family>
                        <prefix>DR</prefix>
                    </name>
                </playingEntity>
            </participantRole>
        </participant>
    </act>
</entryRelationship>

```

## 4.22 Drug Vehicle

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.24 (open) ]

**Table 268: Drug Vehicle Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	
<a href="#">Immunization Activity (V3)</a> (optional)	

This template represents the vehicle (e.g., saline, dextrose) for administering a medication.

**Table 269: Drug Vehicle Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24)					
@classCode	1..1	SHALL		<a href="#">81-7490</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">81-7495</a>	
@root	1..1	SHALL		<a href="#">81-10493</a>	2.16.840.1.113883.10.20.22.4.24
code	1..1	SHALL		<a href="#">81-19137</a>	
@code	1..1	SHALL		<a href="#">81-19138</a>	412307009
@codeSystem	1..1	SHALL		<a href="#">81-26502</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
playingEntity	1..1	SHALL		<a href="#">81-7492</a>	
code	1..1	SHALL		<a href="#">81-7493</a>	
name	0..1	MAY		<a href="#">81-7494</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:81-7490).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7495) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.24"** (CONF:81-10493).
3. **SHALL** contain exactly one [1..1] **code** (CONF:81-19137).
  - a. This code **SHALL** contain exactly one [1..1] **@code="412307009"** Drug Vehicle (CONF:81-19138).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26502).
4. **SHALL** contain exactly one [1..1] **playingEntity** (CONF:81-7492).

This playingEntity/code is used to supply a coded term for the drug vehicle.

- a. This playingEntity **SHALL** contain exactly one [1..1] **code** (CONF:81-7493).
- b. This playingEntity **MAY** contain zero or one [0..1] **name** (CONF:81-7494).
  - i. This playingEntity/name **MAY** be used for the vehicle name in text, such as Normal Saline (CONF:81-10087).

**Figure 143: Drug Vehicle Example**

```
<participantRole classCode="MANU">
  <templateId root="2.16.840.1.113883.10.20.22.4.24"/>
  <code code="412307009" displayName="drug vehicle"
codeSystem="2.16.840.1.113883.6.96"/>
  <playingEntity classCode="MMAT">
    <code code="324049" displayName="Aerosol"
codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm"/>
    <name>Aerosol</name>
  </playingEntity>
</participantRole>
```

## 4.23 Encounter Activity (V3)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01  
(open) ]

**Table 270: Encounter Activity (V3) Contexts**

Contained By:	Contains:
<a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional)
<a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional)
<a href="#">Encounters Section (entries optional) (V3)</a> (optional)	<a href="#">Encounter Diagnosis (V3)</a> (optional)
<a href="#">Encounters Section (entries required) (V3)</a> (required)	

This clinical statement describes an interaction between a patient and clinician. Interactions may include in-person encounters, telephone conversations, and email exchanges.

**Table 271: Encounter Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8710</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1198-8711</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8712</a>	
@root	1..1	SHALL		<a href="#">1198-26353</a>	2.16.840.1.113883.10.20.22.4.49
@extension	1..1	SHALL		<a href="#">1198-32546</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8713</a>	
code	1..1	SHALL		<a href="#">1198-8714</a>	urn:oid:2.16.840.1.113883.3.88.12.80.32 (EncounterTypeCode)
originalText	0..1	SHOULD		<a href="#">1198-8719</a>	
reference	0..1	SHOULD		<a href="#">1198-15970</a>	
@value	0..1	SHOULD		<a href="#">1198-15971</a>	
translation	0..1	MAY		<a href="#">1198-32323</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-8715</a>	
sdtc:dischargeDispositionCode	0..1	MAY		<a href="#">1198-32176</a>	
performer	0..*	MAY		<a href="#">1198-8725</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-8726</a>	
code	0..1	MAY		<a href="#">1198-8727</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
participant	0..*	SHOULD		<a href="#">1198-8738</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8740</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1198-14903</a>	<a href="#">Service Delivery Location</a> ( <i>identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.32</i> )
entryRelationship	0..*	MAY		<a href="#">1198-8722</a>	

@typeCode	1..1	SHALL		<a href="#">1198-8723</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-14899</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-15492</a>	
act	1..1	SHALL		<a href="#">1198-15973</a>	<a href="#">Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8710).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8711).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8712) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.49"** (CONF:1198-26353).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32546).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8713).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet **EncounterTypeCode** urn:oid:2.16.840.1.113883.3.88.12.80.32 **DYNAMIC** (CONF:1198-8714).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1198-8719).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1198-15970).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1198-15971).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1198-15972).

The translation may exist to map the code of EncounterTypeCode (2.16.840.1.113883.3.88.12.80.32) value set to the code of Encounter Planned (2.16.840.1.113883.11.20.9.52) value set.

- b. This code **MAY** contain zero or one [0..1] **translation** (CONF:1198-32323).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8715).
7. **MAY** contain zero or one [0..1] **sdtc:dischargeDispositionCode** (CONF:1198-32176). Note: The prefix sdtc: SHALL be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the dischargeDispositionCode element
  - a. This sdtc:dischargeDispositionCode **SHOULD** contain exactly [0..1] **code**, which **SHOULD** be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04

FL17-Patient Status (code system 2.16.840.1.113883.6.301.5) **DYNAMIC** or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition (CONF:1198-32177).

- b. This sdtc:dischargeDispositionCode **SHOULD** contain exactly [0..1] **codeSystem**, which **SHOULD** be either CodeSystem: NUBC 2.16.840.1.113883.6.301.5 **OR** CodeSystem: HL7 Discharge Disposition 2.16.840.1.113883.12.112 (CONF:1198-32377).
8. **MAY** contain zero or more [0..\*] **performer** (CONF:1198-8725).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-8726).
    - i. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-8727).
9. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-8738) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8740).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1198-14903).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-8722) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8723).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-14899).
11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-15492) such that it
  - a. **SHALL** contain exactly one [1..1] [Encounter Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:1198-15973).

**Table 272: EncounterTypeCode**

Value Set: EncounterTypeCode urn:oid:2.16.840.1.113883.3.88.12.80.32 This value set includes only the codes of the Current Procedure and Terminology designated for Evaluation and Management (99200 – 99607) (subscription to AMA Required) Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
99201	CPT4	urn:oid:2.16.840.1.11388 3.6.12	Office or other outpatient visit (problem focused)
99202	CPT4	urn:oid:2.16.840.1.11388 3.6.12	Office or other outpatient visit (expanded problem (expanded))
99203	CPT4	urn:oid:2.16.840.1.11388 3.6.12	Office or other outpatient visit (detailed)
99204	CPT4	urn:oid:2.16.840.1.11388 3.6.12	Office or other outpatient visit (comprehensive, (comprehensive - moderate))
99205	CPT4	urn:oid:2.16.840.1.11388 3.6.12	Office or other outpatient visit (comprehensive, comprehensive-high)
...			

**Figure 144: Encounter Activity (V3) Example**

```
<encounter classCode="ENC" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01" />
    <id root="2a620155-9d11-439e-92b3-5d9815ff4de8" />
    <code code="99213" displayName="Office outpatient visit 15 minutes"
codeSystemName="CPT-4" codeSystem="2.16.840.1.113883.6.12">
        <originalText>
            <reference value="#Encounter1" />
        </originalText>
        <translation code="AMB" codeSystem="2.16.840.1.113883.5.4" displayName="Ambulatory"
codeSystemName="HL7 ActEncounterCode" />
    </code>
    <effectiveTime value="201209271300+0500" />
    <performer>
        <assignedEntity>
            .
            .
            .
        </assignedEntity>
    </performer>
    <participant typeCode="LOC">
        <participantRole classCode="SDLOC">
            <templateId root="2.16.840.1.113883.10.20.22.4.32" />
            .
            .
            .
        </participantRole>
    </participant>
    <entryRelationship typeCode="RSON">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
            .
            .
            .
        </observation>
    </entryRelationship>
</encounter>
```

## 4.24 Encounter Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 (open)]

**Table 273: Encounter Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (required)

This template wraps relevant problems or diagnoses at the close of a visit or that need to be followed after the visit. If the encounter is associated with a Hospital Discharge, the Hospital Discharge Diagnosis must be used. This entry requires at least one Problem Observation entry.

**Table 274: Encounter Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14889</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-14890</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14895</a>	
@root	1..1	SHALL		<a href="#">1198-14896</a>	2.16.840.1.113883.10.20.22.4.80
@extension	1..1	SHALL		<a href="#">1198-32542</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19182</a>	
@code	1..1	SHALL		<a href="#">1198-19183</a>	29308-4
@codeSystem	1..1	SHALL		<a href="#">1198-32160</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-14892</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14893</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-14898</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14889).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14890).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14895) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.80"** (CONF:1198-14896).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32542).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19182).
  - a. This code **SHALL** contain exactly one [1..1] **@code="29308-4"** Diagnosis (CONF:1198-19183).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32160).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-14892) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14893).
- b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14898).

**Figure 145: Encounter Diagnosis (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.80" extension="2015-08-01" />
  <code code="29308-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName=" DIAGNOSIS" />
  <statusCode code="active" />
  <effectiveTime>
    <low value="20903003" />
  </effectiveTime>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      <!-- Problem Observation -->
      ...
      ...
    </observation>
  </entryRelationship>
</act>

```

## 4.25 Entry Reference

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.122 (open) ]

**Table 275: Entry Reference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional) <a href="#">Outcome Observation</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (required) <a href="#">Intervention Act (V2)</a> (optional)	

This template represents the act of referencing another entry in the same CDA document instance. Its purpose is to remove the need to repeat the complete XML representation of the referred entry when relating one entry to another. This template can be used to reference many types of Act class derivations, such as encounters, observations, procedures etc., as it is often necessary when authoring CDA documents to repeatedly reference other Acts of these types.

For example, in a Care Plan it is necessary to repeatedly relate Health Concerns, Goals, Interventions and Outcomes.

The id is required and must be the same id as the entry/id it is referencing. The id cannot be a null value. Act/Code is set to nullFlavor="NP" (Not Present). This means the value is not present in the message (in act/Code).

**Table 276: Entry Reference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)					
@classCode	1..1	SHALL		<a href="#">1098-31485</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31486</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31487</a>	
@root	1..1	SHALL		<a href="#">1098-31488</a>	2.16.840.1.113883.10.20.22.4.122
id	1..*	SHALL		<a href="#">1098-31489</a>	
code	1..1	SHALL		<a href="#">1098-31490</a>	
@nullFlavor	1..1	SHALL		<a href="#">1098-31491</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NP
statusCode	1..1	SHALL		<a href="#">1098-31498</a>	
@code	0..1	MAY		<a href="#">1098-31499</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31485).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31486).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31487) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.122"** (CONF:1098-31488).

The ID must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. The ID cannot have Null value (e.g., nullFlavor is not allowed).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31489).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31490).
  - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor="NP"** Not Present (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-31491).

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31498).
  - a. This statusCode **MAY** contain zero or one [0..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31499).

**Figure 146: Entry Reference Example**

```
<!--
*****
Health Concern section
*****
-->
<act classCode="ACT" moodCode="EVN">
    <!-- Health Concern Act of a pneumonia diagnosis -->
    <templateId root="2.16.840.1.113883.10.20.22.4.132" />
    <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
    <code code="75310-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Health Concern" />
    <statusCode code="active" />
    <effectiveTime value="20130616" />
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2014-06-09" />
            <id root="8dfacd73-1682-4cc4-9351-e54cce83612" />
            <code code="29308-4"
                codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC"
                displayName="Diagnosis"/>
            <statusCode code="completed" />
            <effectiveTime>
                <!-- Date of diagnosis -->
                <low value="20130616" />
            </effectiveTime>
            <value xsi:type="CD" code="233604007"
                codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"
                displayName="Pneumonia" />
        <!-- This Entry Reference refers to a goal, intervention, actual
            outcome, or some other entry present in the Care Plan
            that the Health Concern is related to-->
        <entryRelationship typeCode="REFR">
            <act classCode="ACT" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.122" />
                <!-- This ID equals the ID of the goal of a pulse
                    ox greater than 92% -->
                <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
                <!-- The code is nulled to "NP" Not Present -->
                <code nullFlavor="NP" />
                <statusCode code="completed" />
            </act>
        </entryRelationship>
    </observation>
</entryRelationship>
</act>
...
<!--
*****
Expected Outcomes/Goals section
*****
-->
...
<entry>
```

```

<!-- This is an observation about the expected outcome of a pulse ox reading
    of 92 or greater. The Id is the same as the ID as the ID of the
    pneumonia problem above -->
<observation classCode="OBS" moodCode="GOL">
    <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
    <code code="59408-5"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Oxygen saturation in Arterial blood by Pulse oximetry"/>
    <statusCode code="active" />
    <value xsi:type="IVL_PQ">
        <low value="92" unit="%" />
    </value>
    <!-- There could be another Entry Reference here referring to the
        related health concern, actual outcome, or intervention -->
    ...
</observation>
</entry>
...

```

**Figure 147: Diagnosis Reference Example**

```

<!-- Show how an encounter can include a discharge diagnosis which references an
    item on the problem list using the Entry Reference template -->
<!-- Problem Section -->
<observation>
    <id root="1234567" />
    <code code="123" codeSystem="1.2.3" displayName="asthma" />
</observation>
<!-- Encounter Section -->
<encounter>
    <entryRelationship typeCode="COMP">
        <act>
            <code code="145" codeSystem="4.5.6" displayName="discharge diagnosis" />
            <templateId root="2.16.840.1.113883.10.20.22.4.33" extension="2014-06-09" />
            <!-- this is for illustrative purposes only. In this particular
                case, the template requires a nested Problem
                Observation (V2). In the Health Concern template,
                we'd need a constraint that says it's allowable to
                include the Entry Reference template. -->
        <entryRelationship typeCode="SUBJ">
            <act classCode="ACT" moodCode="XXX">
                <templateId root="2.16.840.1.113883.10.20.22.4.122" />
                <id root="1234567" />
                <code nullFlavor="NP" />
            </act>
        </entryRelationship>
    </act>
</entryRelationship>
</encounter>

```

## 4.26 Estimated Date of Delivery

[observation: identifier urn:oid:2.16.840.1.113883.10.20.15.3.1 (closed) ]

**Table 277: Estimated Date of Delivery Contexts**

Contained By:	Contains:
<a href="#">Pregnancy Observation</a> (optional)	

This clinical statement represents the anticipated date when a woman will give birth.

**Table 278: Estimated Date of Delivery Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.1)					
@classCode	1..1	SHALL		<a href="#">81-444</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-445</a>	urn:oid:2.16.840.1.113883.5.10.01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-16762</a>	
@root	1..1	SHALL		<a href="#">81-16763</a>	2.16.840.1.113883.10.20.15.3.1
code	1..1	SHALL		<a href="#">81-19139</a>	
@code	1..1	SHALL		<a href="#">81-19140</a>	11778-8
@codeSystem	1..1	SHALL		<a href="#">81-26503</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">81-448</a>	
@code	1..1	SHALL		<a href="#">81-19096</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	TS	<a href="#">81-450</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-444).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-445).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-16762) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.15.3.1"** (CONF:81-16763).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-19139).
  - a. This code **SHALL** contain exactly one [1..1] **@code="11778-8"** Estimated date of delivery (CONF:81-19140).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26503).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-448).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19096).
- 6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:81-450).

**Figure 148: Estimated Date of Delivery Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.15.3.1"/>
  <code code="11778-8" codeSystem="2.16.840.1.113883.6.1"
    displayName="Estimated date of delivery"/>
  <statusCode code="completed"/>
  <value xsi:type="TS" value="20110919" />
</observation>
```

## 4.27 External Document Reference

[externalDocument: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 (open) ]

**Table 279: External Document Reference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional) <a href="#">Outcome Observation</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	

Where it is necessary to reference an external clinical document, the External Document Reference template can be used to reference this external document. However, if the containing document is replacing or appending to another document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

**Table 280: External Document Reference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
externalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-31931</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOCCLIN
@moodCode	1..1	SHALL		<a href="#">1098-31932</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-32748</a>	
@root	1..1	SHALL		<a href="#">1098-32750</a>	2.16.840.1.113883.10.20.22.4.1 15
@extension	1..1	SHALL		<a href="#">1098-32749</a>	2014-06-09
id	1..1	SHALL		<a href="#">1098-32751</a>	
code	1..1	SHALL		<a href="#">1098-31933</a>	
setId	0..1	SHOULD		<a href="#">1098-32752</a>	
versionNumber	0..1	SHOULD		<a href="#">1098-32753</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="DOCCLIN"** Clinical Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31931).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31932).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-32748) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.115"** (CONF:1098-32750).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32749).
4. **SHALL** contain exactly one [1..1] **id** (CONF:1098-32751).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31933).
6. **SHOULD** contain zero or one [0..1] **setId** (CONF:1098-32752).
7. **SHOULD** contain zero or one [0..1] **versionNumber** (CONF:1098-32753).

**Figure 149: External Document Reference Example**

```
<externalDocument classCode="DOCCLIN" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.115"
    extension="2014-06-09" />
  <id root="6f1bd58b-c58f-40b7-b314-caf1294ed98b" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="57133-1"
    displayName="Referral Note" />
  <setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />
  <versionNumber value="1" />
</externalDocument>
```

## 4.28 Family History Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.47 (open) ]

**Table 281: Family History Death Observation Contexts**

Contained By:	Contains:
<a href="#">Family History Observation (V3)</a> (optional)	

This clinical statement records whether the family member is deceased.

**Table 282: Family History Death Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47)					
@classCode	1..1	SHALL		<a href="#">81-8621</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-8622</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-8623</a>	
@root	1..1	SHALL		<a href="#">81-10495</a>	2.16.840.1.113883.10.20.22.4.47
code	1..1	SHALL		<a href="#">81-19141</a>	
@code	1..1	SHALL		<a href="#">81-19142</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">81-26504</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">81-8625</a>	
@code	1..1	SHALL		<a href="#">81-19097</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-8626</a>	
@code	1..1	SHALL		<a href="#">81-26470</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8621).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-8622).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8623) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.47"** (CONF:81-10495).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-19141).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:81-19142).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:81-26504).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-8625).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19097).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:81-8626).
  - a. This value **SHALL** contain exactly one [1..1] @code="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:81-26470).

**Figure 150: Family History Death Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
  <id root="6898fae0-5c8a-11db-b0de-0800200c9a66"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="419099009"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Dead"/>
</observation>
```

## 4.29 Family History Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01  
(open)]

**Table 283: Family History Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Family History Organizer (V3)</a> (required)	<a href="#">Age Observation</a> (optional) <a href="#">Family History Death Observation</a> (optional)

Family History Observations related to a particular family member are contained within a Family History Organizer. The effectiveTime in the Family History Observation is the biologically or clinically relevant time of the observation. The biologically or clinically relevant time is the time at which the observation holds (is effective) for the family member (the subject of the observation).

**Table 284: Family History Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8586</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-8587</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8599</a>	
@root	1..1	SHALL		<a href="#">1198-10496</a>	2.16.840.1.113883.10.20.22.4.46
@extension	1..1	SHALL		<a href="#">1198-32605</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8592</a>	
code	1..1	SHALL		<a href="#">1198-32427</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type)
translation	1..*	SHALL		<a href="#">1198-32847</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type)
statusCode	1..1	SHALL		<a href="#">1198-8590</a>	
@code	1..1	SHALL		<a href="#">1198-19098</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1198-8593</a>	
value	1..1	SHALL	CD	<a href="#">1198-8591</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
entryRelationship	0..1	MAY		<a href="#">1198-8675</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8676</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-8677</a>	true
observation	1..1	SHALL		<a href="#">1198-15526</a>	<a href="#">Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8678</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8679</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CAUS
observation	1..1	SHALL		<a href="#">1198-15527</a>	<a href="#">Family History Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8586).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8587).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8599) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.46" (CONF:1198-10496).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32605).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8592).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2012-06-01 (CONF:1198-32427).
  - a. This code **SHALL** contain at least one [1..\*] **translation**, which **SHOULD** be selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2014-09-02 (CONF:1198-32847).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8590).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19098).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1198-8593).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1198-8591).
9. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8675) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8676).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1198-8677).
  - c. **SHALL** contain exactly one [1..1] [Age Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15526).
10. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8678) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="CAUS" Causal or Contributory (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8679).
  - b. **SHALL** contain exactly one [1..1] [Family History Death Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47) (CONF:1198-15527).

**Table 285: Problem Type (SNOMED CT)**

Value Set: Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2012-06-01 This value set indicates the level of medical judgment used to determine the existence of a problem. Value Set Source: <a href="https://vsac.nlm.nih.gov/valuesets">https://vsac.nlm.nih.gov/valuesets</a>			
Code	Code System	Code System OID	Print Name
404684003	SNOMED CT	2.16.840.1.113883.6.96	Finding
409586006	SNOMED CT	2.16.840.1.113883.6.96	Complaint
282291009	SNOMED CT	2.16.840.1.113883.6.96	Diagnosis
64572001	SNOMED CT	2.16.840.1.113883.6.96	Condition
248536006	SNOMED CT	2.16.840.1.113883.6.96	Finding of functional performance and activity
418799008	SNOMED CT	2.16.840.1.113883.6.96	Symptom
55607006	SNOMED CT	2.16.840.1.113883.6.96	Problem
373930000	SNOMED CT	2.16.840.1.113883.6.96	Cognitive function finding

**Table 286: Problem Type (LOINC)**

Value Set: Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2014-09-02 This value set indicates the level of medical judgment used to determine the existence of a problem. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2</a>			
Code	Code System	Code System OID	Print Name
75326-9	LOINC	2.16.840.1.113883.6.1	Problem HL7.CCDAR2
75325-1	LOINC	2.16.840.1.113883.6.1	Symptom HL7.CCDAR2
75324-4	LOINC	2.16.840.1.113883.6.1	Functional performance HL7.CCDAR2
75323-6	LOINC	2.16.840.1.113883.6.1	Condition HL7.CCDAR2
29308-4	LOINC	2.16.840.1.113883.6.1	Diagnosis
75322-8	LOINC	2.16.840.1.113883.6.1	Complaint HL7.CCDAR2
75275-8	LOINC	2.16.840.1.113883.6.1	Cognitive Function HL7.CCDAR2
75321-0	LOINC	2.16.840.1.113883.6.1	Clinical finding HL7.CCDAR2
75319-4	LOINC	2.16.840.1.113883.6.1	Cognitive function family member HL7.CCDAR2
75318-6	LOINC	2.16.840.1.113883.6.1	Problem family member HL7.CCDAR2
75317-8	LOINC	2.16.840.1.113883.6.1	Symptom family member HL7.CCDAR2
75316-0	LOINC	2.16.840.1.113883.6.1	Functional performance family member HL7.CCDAR2
75315-2	LOINC	2.16.840.1.113883.6.1	Condition family member HL7.CCDAR2
75314-5	LOINC	2.16.840.1.113883.6.1	Diagnosis family member HL7.CCDAR2

**Figure 151: Family History Observation (V3) Example**

```

<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />
    <!-- Family History Observation template -->
    <id root="d42ebf70-5c89-11db-b0de-0800200c9a66" />
    <code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Condition">
        <translation code="64572001" displayName="Condition"
            codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT"></translation>
    </code>
    <statusCode code="completed" />
    <effectiveTime value="1967" />
    <value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96"
displayName="Myocardial infarction" />
    <entryRelationship typeCode="CAUS">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.47" />
            ...
        </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.31" />
            ...
        </observation>
    </entryRelationship>
</observation>

```

## 4.30 Family History Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01  
(open)]

**Table 287: Family History Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Family History Section (V3)</a> (optional)	<a href="#">Family History Observation (V3)</a> (required)

The Family History Organizer associates a set of observations with a family member. For example, the Family History Organizer can group a set of observations about the patient's father.

**Table 288: Family History Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8600</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1198-8601</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8604</a>	
@root	1..1	SHALL		<a href="#">1198-10497</a>	2.16.840.1.113883.10.20.22.4.45
@extension	1..1	SHALL		<a href="#">1198-32606</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-32485</a>	
statusCode	1..1	SHALL		<a href="#">1198-8602</a>	
@code	1..1	SHALL		<a href="#">1198-19099</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
subject	1..1	SHALL		<a href="#">1198-8609</a>	
relatedSubject	1..1	SHALL		<a href="#">1198-15244</a>	
@classCode	1..1	SHALL		<a href="#">1198-15245</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS
code	1..1	SHALL		<a href="#">1198-15246</a>	urn:oid:2.16.840.1.113883.1.11.19579 (Family Member Value Set)
subject	0..1	SHOULD		<a href="#">1198-15248</a>	
administrativeGenderCode	1..1	SHALL		<a href="#">1198-15974</a>	urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3))
birthTime	0..1	SHOULD		<a href="#">1198-15976</a>	
component	1..*	SHALL		<a href="#">1198-32428</a>	
observation	1..1	SHALL		<a href="#">1198-32429</a>	<a href="#">Family History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8600).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8601).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8604) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.45" (CONF:1198-10497).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32606).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-32485).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8602).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19099).
6. **SHALL** contain exactly one [1..1] **subject** (CONF:1198-8609).
  - a. This subject **SHALL** contain exactly one [1..1] **relatedSubject** (CONF:1198-15244).
    - i. This relatedSubject **SHALL** contain exactly one [1..1] @classCode="PRS" Person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1198-15245).
    - ii. This relatedSubject **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Family Member Value Set](#) urn:oid:2.16.840.1.113883.1.11.19579 **DYNAMIC** (CONF:1198-15246).
    - iii. This relatedSubject **SHOULD** contain zero or one [0..1] **subject** (CONF:1198-15248).
      1. The subject, if present, **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet [Administrative Gender \(HL7 V3\)](#) urn:oid:2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:1198-15974).
      2. The subject, if present, **SHOULD** contain zero or one [0..1] **birthTime** (CONF:1198-15976).
      3. The subject **SHOULD** contain zero or more [0..\*] sdtc:id. The prefix sdtc: **SHALL** be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the id element (CONF:1198-15249).
      4. The subject **MAY** contain zero or one [0..1] **sdtc:deceasedInd**. The prefix sdtc: **SHALL** be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the deceasedInd element (CONF:1198-15981).
      5. The subject **MAY** contain zero or one [0..1] **sdtc:deceasedTime**. The prefix sdtc: **SHALL** be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the deceasedTime element (CONF:1198-15982).
      6. The age of a relative at the time of a family history observation **SHOULD** be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime (CONF:1198-15983).
  7. **SHALL** contain at least one [1..\*] **component** (CONF:1198-32428).

- a. Such components **SHALL** contain exactly one [1..1] [Family History Observation \(v3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01) (CONF:1198-32429).

**Table 289: Family Member Value Set**

Value Set: Family Member Value Set urn:oid:2.16.840.1.113883.1.11.19579 Family Relationships record the familial relationship of a person to another person. This value set is to be used when it is necessary to record family relationships (e.g., next of kin, or blood relations). This is a subset of the value set used for personal relationships Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm</a>			
Code	Code System	Code System OID	Print Name
ADOPT	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	adopted child
AUNT	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	aunt
CHILD	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Child
CHLDINLAW	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	child in-law
COUSN	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	cousin
DOMPART	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	domestic partner
FAMMEMB	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Family Member
CHLDFOST	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	foster child
GRNDCHILD	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	grandchild
GRPRN	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Grandparent
...			

**Figure 152: Family History Organizer (V3) Example**

```

<organizer moodCode="EVN" classCode="CLUSTER">
    <templateId root="2.16.840.1.113883.10.20.22.4.45" extension="2015-08-01" />
    <statusCode code="completed" />
    <subject>
        <relatedSubject classCode="PRS">
            <code code="FTH" displayName="Father" codeSystemName="HL7 FamilyMember"
codeSystem="2.16.840.1.113883.5.111">
                <translation code="9947008" displayName="Natural father"
codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96" />
            </code>
            <subject>
                <sdtc:id root="2.16.840.1.113883.19.5.99999.2" extension="99999999" />
                <id root="2.16.840.1.113883.19.5.99999.2" extension="1234" />
                <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" />
                <birthTime value="1910" />
                <!-- Example use of sdtc extensions :-->
                <!-- <sdtc:deceasedInd value="true"/><sdtc:deceasedTime value="1967"/>
                -->
            </subject>
        </relatedSubject>
    </subject>
    <component>
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />
            . . .
        </observation>
    </component>
</organizer>

```

### 4.31 Functional Status Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09  
(open)]

**Table 290: Functional Status Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional)	<a href="#">Caregiver Characteristics</a> (optional)
<a href="#">Functional Status Organizer (V2)</a> (required)	<a href="#">Assessment Scale Observation</a> (optional)
<a href="#">Health Concern Act (V2)</a> (optional)	<a href="#">Non-Medicinal Supply Activity (V2)</a> (optional)
<a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents the patient's physical function (e.g., mobility status, instrumental activities of daily living, self-care status) and problems that limit function (dyspnea, dysphagia). The template may include assessment scale observations, identify supporting caregivers, and provide information about non-medicinal supplies. This template is used to represent physical or developmental function of all patient populations.

**Table 291: Functional Status Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-13905</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-13906</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-13889</a>	
@root	1..1	SHALL		<a href="#">1098-13890</a>	2.16.840.1.113883.10.20.22.4.6 7
@extension	1..1	SHALL		<a href="#">1098-32568</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-13907</a>	
code	1..1	SHALL		<a href="#">1098-13908</a>	
@code	1..1	SHALL		<a href="#">1098-31522</a>	54522-8
@codeSystem	1..1	SHALL		<a href="#">1098-31523</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-13929</a>	
@code	1..1	SHALL		<a href="#">1098-19101</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-13930</a>	
value	1..1	SHALL		<a href="#">1098-13932</a>	
author	0..*	SHOULD		<a href="#">1098-13936</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.0.22.4.119)</a>
entryRelationship	0..1	MAY		<a href="#">1098-13892</a>	
@typeCode	1..1	SHALL		<a href="#">1098-14596</a>	REFR
supply	1..1	SHALL		<a href="#">1098-14218</a>	<a href="#">Non-Medicinal Supply Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1098-13895</a>	
@typeCode	1..1	SHALL		<a href="#">1098-14597</a>	REFR
observation	1..1	SHALL		<a href="#">1098-</a>	<a href="#">Caregiver Characteristics</a>

				<a href="#">13897</a>	<a href="#">(identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.72)</a>
entryRelationship	0..1	MAY		<a href="#">1098- 14465</a>	
@typeCode	1..1	SHALL		<a href="#">1098- 14598</a>	COMP
observation	1..1	SHALL		<a href="#">1098- 14466</a>	<a href="#">Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.69)</a>
referenceRange	0..*	MAY		<a href="#">1098- 13937</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-13905).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-13906).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-13889) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.67" (CONF:1098-13890).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32568).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-13907).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-13908).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="54522-8" Functional status (CONF:1098-31522).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31523).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-13929).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19101).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-13930).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1098-13932).
  - a. If xsi:type="CD", **SHOULD** contain a code from SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1098-14234).
9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-13936).
10. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-13892) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" refers to (CONF:1098-14596).
  - b. **SHALL** contain exactly one [1..1] [Non-Medicinal Supply Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09) (CONF:1098-14218).
11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-13895) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" refers to (CONF:1098-14597).
  - b. **SHALL** contain exactly one [1..1] **Caregiver Characteristics** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1098-13897).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-14465) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" has component (CONF:1098-14598).
  - b. **SHALL** contain exactly one [1..1] **Assessment Scale Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1098-14466).

referenceRange could be used to represent normal or expected capability for the function being evaluated.

13. **MAY** contain zero or more [0..\*] **referenceRange** (CONF:1098-13937).

**Figure 153: Functional Status Observation (V2) Example**

```
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Functional Status Observation V2-->
    <templateId root="2.16.840.1.113883.10.20.22.4.67" extension="2014-06-09" />
    <id root="ce7cfb78-bd16-467e-8bcf-859a3034108e" />
    <code code="54522-8" displayName="Functional status"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="SNOMED CT" />
    <text>
      <reference value="#FUNC1" />
    </text>
    <statusCode code="completed" />
    <effectiveTime value="200130311" />
    <value xsi:type="CD" code="129035000" displayName="independent with dressing"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
  </observation>
</entry>
```

## 4.32 Functional Status Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.66:2014-06-09  
(open)]

**Table 292: Functional Status Organizer (V2) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional)	<a href="#">Self-Care Activities (ADL and IADL)</a> (required) <a href="#">Functional Status Observation (V2)</a> (required) <a href="#">Author Participation</a> (optional)

This template groups related functional status observations into categories (e.g., mobility, self-care).

**Table 293: Functional Status Organizer (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.66:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-14355</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1098-14357</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-14361</a>	
@root	1..1	SHALL		<a href="#">1098-14362</a>	2.16.840.1.113883.10.20.22.4.66
@extension	1..1	SHALL		<a href="#">1098-32569</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-14363</a>	
code	1..1	SHALL		<a href="#">1098-14364</a>	
statusCode	1..1	SHALL		<a href="#">1098-14358</a>	
@code	1..1	SHALL		<a href="#">1098-31434</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
author	0..*	SHOULD		<a href="#">1098-31585</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
component	1..*	SHALL		<a href="#">1098-14359</a>	
observation	1..1	SHALL		<a href="#">1098-14368</a>	<a href="#">Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)</a>
component	1..*	SHALL		<a href="#">1098-31432</a>	
observation	1..1	SHALL		<a href="#">1098-31433</a>	<a href="#">Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128)</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-14355).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-14357).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-14361) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.66" (CONF:1098-14362).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32569).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-14363).

The code selected should indicate the category that groups the contained functional status evaluation observations (e.g., mobility, self-care, communication).

5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-14364).

a. **SHOULD** be selected from ICF (codeSystem 2.16.840.1.113883.6.254) **OR** LOINC (2.16.840.1.113883.6.1) (CONF:1098-31417).

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-14358).

a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31434).

7. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31585).

8. **SHALL** contain at least one [1..\*] **component** (CONF:1098-14359) such that it

a. **SHALL** contain exactly one [1..1] [Functional Status Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09) (CONF:1098-14368).

9. **SHALL** contain at least one [1..\*] **component** (CONF:1098-31432) such that it

a. **SHALL** contain exactly one [1..1] [Self-Care Activities \(ADL and IADL\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:1098-31433).

**Figure 154: Functional Status Organizer (V2) Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Functional Status Organizer V2-->
    <templateId root="2.16.840.1.113883.10.20.22.4.66" extension="2014-06-09" />
    <id root="a7bc1062-8649-42a0-833d-eed65bd017c9" />
    <code code="d5" displayName="Self-Care" codeSystem="2.16.840.1.113883.6.254"
codeSystemName="ICF" />
    <statusCode code="completed" />
    <author>
        <time value="200130311" />
        <assignedAuthor>
            <id extension="KP00017" root="2.16.840.1.113883.19.5" />
            <addr>
                <streetAddressLine>1003 Health Care
                    Drive</streetAddressLine>
                <city>Ann Arbor</city>
                <state>MI</state>
                <postalCode>02368</postalCode>
                <country>US</country>
            </addr>
            <telecom use="WP" value="tel:(555) 555-1003" />
            <assignedPerson>
                <name>
                    <given>Assigned</given>
                    <family>Amanda</family>
                </name>
            </assignedPerson>
        </assignedAuthor>
    </author>

    <component>
        <observation classCode="OBS" moodCode="EVN">
            <!-- Functional Status Observation V2-->
            <templateId root="2.16.840.1.113883.10.20.22.4.67" extension="2014-06-09" />
            ...
        </observation>
    </component>
    <component>
        <observation classCode="OBS" moodCode="EVN">
            <!-- Functional Status Observation V2-->
            <templateId root="2.16.840.1.113883.10.20.22.4.67" extension="2014-06-09" />
            ...
        </observation>
    </component>
    <component>
        <observation classCode="OBS" moodCode="EVN">
            <!-- Self-Care Activities (ADL and IADL)-->
            <templateId root="2.16.840.1.113883.10.20.22.4.128" />
            ...
        </observation>
    </component>
</organizer>
```

## 4.33 Functional Status Problem Observation (DEPRECATED)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.68:2014-06-09  
(open)]

**Table 294: Functional Status Problem Observation (DEPRECATED) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional)	

A functional status problem observation is a clinical statement that represents a patient's functional performance and ability.

THIS TEMPLATE HAS BEEN DEPRECATED IN C-CDA R2 AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for deprecation:** Functional Status Problem Observation has been merged, without loss of expressivity, into Functional Status Observation  
(2.16.840.1.113883.10.20.22.4.67:2014-06-09).

**Table 295: Functional Status Problem Observation (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.68:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-14282</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14283</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1098-14307</a>	
templateId	1..1	SHALL		<a href="#">1098-14312</a>	
@root	1..1	SHALL		<a href="#">1098-14313</a>	2.16.840.1.113883.10.20.22.4.6 8
@extension	1..1	SHALL		<a href="#">1098-32601</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-14284</a>	
code	1..1	SHALL		<a href="#">1098-14314</a>	
@code	0..1	SHOULD		<a href="#">1098-14315</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 248536006
text	0..1	SHOULD		<a href="#">1098-14304</a>	
reference	0..1	SHOULD		<a href="#">1098-15552</a>	
@value	0..1	SHOULD		<a href="#">1098-15553</a>	
statusCode	1..1	SHALL		<a href="#">1098-14286</a>	
@code	1..1	SHALL		<a href="#">1098-19100</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-14287</a>	
low	1..1	SHALL		<a href="#">1098-26456</a>	
high	0..1	MAY		<a href="#">1098-26457</a>	
value	1..1	SHALL	CD	<a href="#">1098-14291</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.7.4 (Problem)
@nullFlavor	0..1	MAY		<a href="#">1098-14292</a>	
methodCode	0..1	MAY		<a href="#">1098-14316</a>	

1. **SHALL** contain exactly one [1..1] `@classCode="OBS"` (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14282).
  2. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14283).
- Use negationInd="true" to indicate that the problem was not observed.
3. **MAY** contain zero or one [0..1] `@negationInd` (CONF:1098-14307).
  4. **SHALL** contain exactly one [1..1] `templateId` (CONF:1098-14312) such that it
    - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.68"` (CONF:1098-14313).
    - b. **SHALL** contain exactly one [1..1] `@extension="2014-06-09"` (CONF:1098-32601).
  5. **SHALL** contain at least one [1..\*] `id` (CONF:1098-14284).
  6. **SHALL** contain exactly one [1..1] `code` (CONF:1098-14314).
    - a. This code **SHOULD** contain zero or one [0..1] `@code="248536006"` finding of functional performance and activity (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14315).
  7. **SHOULD** contain zero or one [0..1] `text` (CONF:1098-14304).
    - a. The text, if present, **SHOULD** contain zero or one [0..1] `reference` (CONF:1098-15552).
      - i. The reference, if present, **SHOULD** contain zero or one [0..1] `@value` (CONF:1098-15553).
        1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-15554).
  8. **SHALL** contain exactly one [1..1] `statusCode` (CONF:1098-14286).
    - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19100).
  9. **SHOULD** contain zero or one [0..1] `effectiveTime` (CONF:1098-14287).
- The value of effectiveTime/low represents onset date.
- a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] `low` (CONF:1098-26456).
- If the problem is resolved, record the resolution date in effectiveTime/high. If the problem is known to be resolved but the resolution date is not known, use `@nullFlavor="UNK"`. If the problem is not resolved, do not include the high element.
- b. The effectiveTime, if present, **MAY** contain zero or one [0..1] `high` (CONF:1098-26457).
10. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"`, where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-14291).
    - a. This value **MAY** contain zero or one [0..1] `@nullFlavor` (CONF:1098-14292).
      - i. If the diagnosis is unknown or the SNOMED code is unknown, `@nullFlavor` **SHOULD** be "UNK". If the diagnosis is known but the code cannot be found in

the Value Set, @nullFlavor **SHOULD** be “OTH” and the known diagnosis code **SHOULD** be placed in the translation element (CONF:1098-14293).

11. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-14316).

## 4.34 Goal Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.121 (open) ]

**Table 296: Goal Observation Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Goals Section</a> (required) <a href="#">Goal Observation</a> (optional)	<a href="#">Goal Observation</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional)

This template represents a patient health goal. A Goal Observation template may have related components that are acts, encounters, observations, procedures, substance administrations, or supplies.

A goal may be a patient or provider goal. If the author is set to the recordTarget (patient), this is a patient goal. If the author is set to a provider, this is a provider goal. If both patient and provider are set as authors, this is a negotiated goal.

A goal usually has a related health concern and/or risk.

A goal may have components consisting of other goals (milestones). These milestones are related to the overall goal through entryRelationships.

**Table 297: Goal Observation Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121)					
@classCode	1..1	SHALL		<a href="#">1098-30418</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-30419</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = GOL
templateId	1..1	SHALL		<a href="#">1098-8583</a>	
@root	1..1	SHALL		<a href="#">1098-10512</a>	2.16.840.1.113883.10.20.22.4.1 21
id	1..*	SHALL		<a href="#">1098-32332</a>	
code	1..1	SHALL		<a href="#">1098-30784</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1098-32333</a>	
@code	1..1	SHALL		<a href="#">1098-32334</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-32335</a>	
value	0..1	MAY		<a href="#">1098-32743</a>	
author	0..*	SHOULD		<a href="#">1098-30995</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a>
entryRelationship	0..*	MAY		<a href="#">1098-30701</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30702</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1098-30703</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122</a>
entryRelationship	0..*	MAY		<a href="#">1098-30704</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30705</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32879</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122</a>
entryRelationship	0..1	SHOULD		<a href="#">1098-30785</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30786</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR

observation	1..1	SHALL		<a href="#">1098-30787</a>	Priority Preference (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.022.4.143</a> )
entryRelationship	0..*	MAY		<a href="#">1098-31448</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31449</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32880</a>	Goal Observation (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.022.4.121</a> )
entryRelationship	0..*	MAY		<a href="#">1098-31559</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31560</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1098-31588</a>	Entry Reference (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.022.4.122</a> )
reference	0..*	MAY		<a href="#">1098-32754</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32755</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1098-32756</a>	External Document Reference (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09</a> )

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30418).
2. **SHALL** contain exactly one [1..1] **@moodCode**="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30419).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8583) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.121" (CONF:1098-10512).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-32332).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32333).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32334).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-32335).
8. **MAY** contain zero or one [0..1] **value** (CONF:1098-32743).

If the author is the recordTarget (patient), this is a patient goal. If the author is a provider, this is a provider goal. If both patient and provider are authors, this is a negotiated goal. If no author is present, it is assumed the document or section author(s) is the author of this goal.

9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30995).

The following entryRelationship represents the relationship between a Goal Observation and a Health Concern Act (Goal Observation REFERS TO Health Concern Act). As Health Concern Act is already defined in Health Concerns Section, rather than clone the whole Health Concern Act template, an Entry Reference may be used in entryRelationship to refer the template.

10. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1098-30701) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30702).
- b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-30703).

The following entryRelationship represents a planned component of the goal such as Planned Encounter (V2), Planned Observation (V2), Planned Procedure (V2), Planned Medication Activity (V2), Planned Supply (V2), Planned Act (V2) or Planned Immunization Activity. Because these entries are already described in the Interventions Section of the CDA document instance, rather than repeating the full content of the entries, the Entry Reference template may be used to reference the entries.

11. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1098-30704) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30705).
- b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-32879).

The following entryRelationship represents the priority that the patient or a provider puts on the goal.

12. **SHOULD** contain zero or one [0..1] [entryRelationship](#) (CONF:1098-30785) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30786).
- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-30787).

The following entryRelationship represents the relationship between two Goal Observations where the target is a component of the source (Goal Observation HAS COMPONENT Goal Observation). The component goal (target) is a Milestone.

13. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1098-31448) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31449).
- b. **SHALL** contain exactly one [1..1] [Goal Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:1098-32880).

Where a Goal Observation needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31559) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31560).
- b. **SHALL** contain exactly one [1..1] **Entry Reference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-31588).

Where it is necessary to reference an external clinical document such a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

15. **MAY** contain zero or more [0..\*] **reference** (CONF:1098-32754).

- a. The reference, if present, **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32755).
- b. The reference, if present, **SHALL** contain exactly one [1..1] **External Document Reference** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1098-32756).

**Figure 155: Goal Observation Example**

```

<observation classCode="OBS" moodCode="GOL">
    <templateId root="2.16.840.1.113883.10.20.22.4.121" />
    <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
    <code code="59408-5"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />
    <statusCode code="active" />
    <effectiveTime value="20130902" />
    <value xsi:type="IVL_PQ">
        <low value="92" unit="%" />
    </value>
    <!--
        If the author is set to the recordTarget (patient), this is a patient goal.
        If the author is set to a provider, this is a provider goal.
        If both patient and provider are set as authors, this is a negotiated goal.
    -->
    <!-- Provider Author -->
    <author>
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        ...
    </author>
    <!-- Patient Author -->
    <author typeCode="AUT">
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        ...
    </author>
    <!-- This entryRelationship represents the relationship "Goal REFERS TO Health Concern" --
->
    <entryRelationship typeCode="REFR">
        <!-- Entry Reference Concern Act -->
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.122" />
            <!-- This id points to an already defined Health Concern in the Health Concerns
Section -->
            <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
            ...
        </act>
    </entryRelationship>
    <!-- Priority Preference -->
    <entryRelationship typeCode="RSON">
        <!-- Priority Preference - this is the preference that the patient
            (specified by the Author Participation template)
            places on the Goal -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.143" />
            ...
        </observation>
    </entryRelationship>
    <!-- Priority Preference - this is the preference that the provider
        (specified by the Author Participation template)
        places on the Goal -->
    <entryRelationship typeCode="RSON">
        <!-- Priority Preference -->
        <observation classCode="OBS" moodCode="EVN">

```

```

<templateId root="2.16.840.1.113883.10.20.22.4.143" />
...
</observation>
</entryRelationship>
</observation>

```

## 4.35 Handoff Communication Participants

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.141 (open) ]

**Table 298: Handoff Communication Participants Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Interventions Section (V3)</a> (optional)	<a href="#">Author Participation</a> (required)

This template represents the sender (author) and receivers (participants) of a handoff communication in a plan of treatment. It does not convey details about the communication. The "handoff" process involves senders, those transmitting the patient's information and releasing the care of that patient to the next clinician, and receivers, those who accept the patient information and care of that patient.

**Table 299: Handoff Communication Participants Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141)					
@classCode	1..1	SHALL		<a href="#">1098-30832</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-30833</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-30834</a>	
@root	1..1	SHALL		<a href="#">1098-30835</a>	2.16.840.1.113883.10.20.22.4.1 41
code	1..1	SHALL		<a href="#">1098-30836</a>	
@code	1..1	SHALL		<a href="#">1098-30837</a>	432138007
@codeSystem	1..1	SHALL		<a href="#">1098-30838</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1098-31668</a>	
@code	1..1	SHALL		<a href="#">1098-31669</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31670</a>	
author	1..*	SHALL		<a href="#">1098-31672</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119)</a>
participant	1..*	SHALL		<a href="#">1098-31673</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31674</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = IRCP
participantRole	1..1	SHALL		<a href="#">1098-31675</a>	
id	1..*	SHALL		<a href="#">1098-32422</a>	
code	0..1	SHOULD		<a href="#">1098-31676</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
addr	1..*	SHALL		<a href="#">1098-32392</a>	
playingEntity	0..1	MAY		<a href="#">1098-32393</a>	
name	1..*	SHALL		<a href="#">1098-32394</a>	

1. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-30832).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30833).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30834) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.141" (CONF:1098-30835).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1098-30836).
  - a. This code **SHALL** contain exactly one [1..1] @code="432138007" handoff communication (procedure) (CONF:1098-30837).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30838).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31668).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31669).

The effective time is the time when the handoff process took place between the sender and receiver of the patient information. This could be the time the information was transmitted, released, or verbally communicated to the next clinician.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31670).

The Author Participant contains the sender's contact information and is a resource for the Information Recipient for any follow-up questions.

7. **SHALL** contain at least one [1..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31672).

Documentation of the Information Recipient's name and address verifies that the information was exchanged.

8. **SHALL** contain at least one [1..\*] **participant** (CONF:1098-31673) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1098-31674).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-31675).
    - i. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:1098-32422).
    - ii. This participantRole **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet **Healthcare Provider Taxonomy (HIPAA)** urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1098-31676).
    - iii. This participantRole **SHALL** contain at least one [1..\*] **addr** (CONF:1098-32392).
    - iv. This participantRole **MAY** contain zero or one [0..1] **playingEntity** (CONF:1098-32393).
      1. The playingEntity, if present, **SHALL** contain at least one [1..\*] **name** (CONF:1098-32394).

**Figure 156: Handoff Communication Example**

```
<entry>
  <act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.141" />
    <code code="432138007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="handoff communication (procedure)" />
    <statusCode code="completed" />
    <effectiveTime value="20130712" />
    <author typeCode="AUT">
      <templateId root="2.16.840.1.113883.10.20.22.4.119" />
      <time value="20130730" />
      <assignedAuthor>
        <id root="d839038b-7171-4165-a760-467925b43857" />
        ...
      </assignedAuthor>
    </author>
    <participant typeCode="IRCP">
      <participantRole>
        <code code="163W00000X" codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health Care Provider Taxonomy" displayName="Registered Nurse" />
        ...
      </participantRole>
    </participant>
  </act>
</entry>
```

## 4.36 Health Concern Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2015-08-01  
(open)]

**Table 300: Health Concern Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concerns Section (V2)</a> (required)	<a href="#">Pregnancy Observation</a> (optional) <a href="#">Caregiver Characteristics</a> (optional) <a href="#">Assessment Scale Observation</a> (optional) <a href="#">Characteristics of Home Environment</a> (optional) <a href="#">Cultural and Religious Observation</a> (optional) <a href="#">Sensory Status</a> (optional) <a href="#">Self-Care Activities (ADL and IADL)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Nutritional Status Observation</a> (optional) <a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Nutrition Assessment</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Smoking Status - Meaningful Use (V2)</a> (optional) <a href="#">Vital Sign Observation (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Tobacco Use (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional) <a href="#">Result Observation (V3)</a> (optional) <a href="#">Mental Status Observation (V3)</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Social History Observation (V3)</a> (optional) <a href="#">Result Organizer (V3)</a> (optional) <a href="#">Encounter Diagnosis (V3)</a> (optional) <a href="#">Family History Organizer (V3)</a> (optional) <a href="#">Hospital Admission Diagnosis (V3)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional) <a href="#">Preoperative Diagnosis (V3)</a> (optional) <a href="#">Postprocedure Diagnosis (V3)</a> (optional) <a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)

This template represents a health concern.

It is a wrapper for a single health concern which may be derived from a variety of sources within an EHR (such as Problem List, Family History, Social History, Social Worker Note, etc.).

A Health Concern Act is used to track non-optimal physical or psychological situations drawing the patient to the healthcare system. These may be from the perspective of the care team or from the perspective of the patient.

When the underlying condition is of concern (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest), the statusCode is “active”. Only when the underlying condition is no longer of concern is the statusCode set to “completed”. The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, a prior heart attack may remain a concern).

Health concerns require intervention(s) to increase the likelihood of achieving the goals of care for the patient and they specify the condition oriented reasons for creating the plan.

**Table 301: Health Concern Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-30750</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-30751</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-30752</a>	
@root	1..1	SHALL		<a href="#">1198-30753</a>	2.16.840.1.113883.10.20.22.4.1 32
@extension	1..1	SHALL		<a href="#">1198-32861</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-30754</a>	
code	1..1	SHALL		<a href="#">1198-32310</a>	
@code	1..1	SHALL		<a href="#">1198-32311</a>	75310-3
@codeSystem	1..1	SHALL		<a href="#">1198-32312</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-30758</a>	
@code	1..1	SHALL		<a href="#">1198-32313</a>	urn:oid:2.16.840.1.113883.11.2 0.9.19 (ProblemAct statusCode)
effectiveTime	0..1	MAY		<a href="#">1198-30759</a>	
author	0..*	SHOULD		<a href="#">1198-31546</a>	<a href="#">Author Participation</a> ( <a href="#">identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a> )
entryRelationship	0..*	MAY		<a href="#">1198-30761</a>	
@typeCode	1..1	SHALL		<a href="#">1198-30762</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31001</a>	<a href="#">Problem Observation (V3)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01</a> )
entryRelationship	0..*	MAY		<a href="#">1198-31007</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31008</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31186</a>	<a href="#">Allergy - Intolerance Observation (V2)</a> ( <a href="#">identifier:</a>

					<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31157</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31158</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32106</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.122)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31160</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31161</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1198-32107</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.122)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31190</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31191</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31192</a>	<a href="#">Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.69)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31232</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31264</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31265</a>	<a href="#">Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.128)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31234</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31268</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31273</a>	<a href="#">Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31235</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31269</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR

observation	1..1	SHALL		<a href="#">1198-31275</a>	<a href="#">Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31236</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31270</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31277</a>	<a href="#">Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31237</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31279</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		<a href="#">1198-31280</a>	<a href="#">Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31238</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31282</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31283</a>	<a href="#">Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31241</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31291</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31292</a>	<a href="#">Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31244</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31300</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31301</a>	<a href="#">Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31246</a>	

@typeCode	1..1	SHALL		<a href="#">1198-31306</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31307</a>	<a href="#">Postprocedure Diagnosis (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.51:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31247</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31309</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31310</a>	<a href="#">Pregnancy Observation</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.15.3.8</a>
entryRelationship	0..*	MAY		<a href="#">1198-31248</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31312</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31313</a>	<a href="#">Preoperative Diagnosis (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.65:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31250</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31318</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31319</a>	<a href="#">Reaction Observation (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.9:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31251</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31321</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31322</a>	<a href="#">Result Observation (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.2:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31252</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31324</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31325</a>	<a href="#">Sensory Status (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a>

					<a href="#">0.22.4.127</a>
entryRelationship	0..*	MAY		<a href="#">1198-31253</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31327</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31328</a>	<a href="#">Social History Observation (V3)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31254</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32955</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31331</a>	<a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31255</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31333</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31334</a>	<a href="#">Tobacco Use (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31256</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31336</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31337</a>	<a href="#">Vital Sign Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31257</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31339</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31340</a>	<a href="#">Longitudinal Care Wound Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31365</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31366</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) =

					SPRT
observation	1..1	SHALL		<a href="#">1198-31367</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31368</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31369</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31370</a>	<a href="#">Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31371</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31372</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31373</a>	<a href="#">Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31374</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31375</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31376</a>	<a href="#">Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31377</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31378</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31379</a>	<a href="#">Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31380</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31381</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		<a href="#">1198-31382</a>	<a href="#">Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-</a>	

				<a href="#">31442</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31443</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31444</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31544</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31547</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31548</a>	<a href="#">Problem Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.3:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31549</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31550</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31551</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122)</a>
reference	0..*	MAY		<a href="#">1198-32757</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32758</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1198-32759</a>	<a href="#">External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.115:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass  
urn:oid:2.16.840.1.113883.5.6) (CONF:1198-30750).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood  
urn:oid:2.16.840.1.113883.5.1001) (CONF:1198-30751).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-30752) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.132"** (CONF:1198-30753).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32861).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-30754).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-32310).
  - a. This code **SHALL** contain exactly one [1..1] **@code="75310-3"** Health Concern (CONF:1198-32311).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32312).
  - 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-30758).
    - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProblemAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.19 **STATIC** (CONF:1198-32313).
  - 7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1198-30759).
- A health concern may be a patient or provider concern. If the author is set to the recordTarget (patient), this is a patient concern. If the author is set to a provider, this is a provider concern. If both patient and provider are set as authors, this is a concern of both the patient and the provider.
- 8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31546).
  - 9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-30761) such that it
    - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-30762).
    - b. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-31001).
  - 10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31007) such that it
    - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31008).
    - b. **SHALL** contain exactly one [1..1] [Allergy - Intolerance Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09) (CONF:1198-31186).

The following entryRelationship represents the relationship between two Health Concern Acts where there is a general relationship between the source and the target (Health Concern REFERS TO Health Concern). For example, a patient has 2 health concerns identified in a CARE Plan: Failure to Thrive and Poor Feeding, while it could be that one may have caused the other, at the time of care planning and documentation it is not necessary, nor desirable to have to assert what caused what. The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

- 11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31157) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31158).
  - b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32106).
    - i. The Entry Reference template **SHALL** contain an id that references a Health Concern Act (CONF:1198-32860).

The following entryRelationship represents the relationship between two Health Concern Acts where the target is a component of the source (Health Concern HAS COMPONENT Health Concern). For example, a patient has an Impaired Mobility Health Concern. There may then be the need to document several component health concerns, such as "Unable to Transfer Bed to Chair", "Unable to Rise from Commode", "Short of Breath Walking with Walker". The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31160) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31161).
  - b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32107).
    - i. The Entry Reference template **SHALL** contain an id that references a Health Concern Act (CONF:1198-32745).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31190) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31191).
  - b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1198-31192).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31232) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31264).
  - b. **SHALL** contain exactly one [1..1] Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:1198-31265).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31234) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31268).
  - b. **SHALL** contain exactly one [1..1] Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:1198-31273).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31235) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31269).
  - b. **SHALL** contain exactly one [1..1] Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:1198-31275).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31236) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31270).
  - b. **SHALL** contain exactly one [1..1] Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:1198-31277).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31237) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31279).
  - b. **SHALL** contain exactly one [1..1] Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) (CONF:1198-31280).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31238) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31282).
  - b. **SHALL** contain exactly one [1..1] Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09) (CONF:1198-31283).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31241) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31291).
  - b. **SHALL** contain exactly one [1..1] Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01) (CONF:1198-31292).
21. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31244) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31300).
  - b. **SHALL** contain exactly one [1..1] Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138) (CONF:1198-31301).
22. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31246) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31306).
  - b. **SHALL** contain exactly one [1..1] Postprocedure Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01) (CONF:1198-31307).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31247) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31309).

- b. **SHALL** contain exactly one [1..1] [Pregnancy Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8) (CONF:1198-31310).
24. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31248) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31312).
  - b. **SHALL** contain exactly one [1..1] [Preoperative Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01) (CONF:1198-31313).
25. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31250) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31318).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1198-31319).
26. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31251) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31321).
  - b. **SHALL** contain exactly one [1..1] [Result Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:1198-31322).
27. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31252) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31324).
  - b. **SHALL** contain exactly one [1..1] [Sensory Status](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127) (CONF:1198-31325).
28. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31253) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31327).
  - b. **SHALL** contain exactly one [1..1] [Social History Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01) (CONF:1198-31328).
29. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31254) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32955).
  - b. **SHALL** contain exactly one [1..1] [Substance or Device Allergy - Intolerance Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09) (CONF:1198-31331).
30. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31255) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31333).
  - b. **SHALL** contain exactly one [1..1] Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:1198-31334).
31. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31256) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31336).
  - b. **SHALL** contain exactly one [1..1] Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09) (CONF:1198-31337).
32. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31257) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31339).
  - b. **SHALL** contain exactly one [1..1] Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01) (CONF:1198-31340).

The following entryRelationship represents the relationship Health Concern HAS SUPPORT Observation.

33. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31365) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31366).
  - b. **SHALL** contain exactly one [1..1] Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-31367).
34. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31368) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31369).
  - b. **SHALL** contain exactly one [1..1] Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1198-31370).
35. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31371) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31372).
  - b. **SHALL** contain exactly one [1..1] Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:1198-31373).
36. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31374) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31375).
  - b. **SHALL** contain exactly one [1..1] [Characteristics of Home Environment](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:1198-31376).
37. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31377) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31378).
  - b. **SHALL** contain exactly one [1..1] [Nutritional Status Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124) (CONF:1198-31379).
38. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31380) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31381).
  - b. **SHALL** contain exactly one [1..1] [Result Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:1198-31382).

The following entryRelationship represents the priority that the patient or a provider puts on the health concern.

39. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31442) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31443).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31444).
40. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31544) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31547).
  - b. **SHALL** contain exactly one [1..1] [Problem Concern Act \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) (CONF:1198-31548).

Where a Health Concern needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

41. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31549) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31550).
  - b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-31551).

Where it is necessary to reference an external clinical document such a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

42. **MAY** contain zero or more [0..\*] **reference** (CONF:1198-32757).

- a. The reference, if present, **SHALL** contain exactly one [1..1] @**typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32758).
- b. The reference, if present, **SHALL** contain exactly one [1..1] [External Document Reference](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1198-32759).

**Figure 157: Health Concern Act Example**

```
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.132" extension="2015-08-01" />
    <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
    <code code="75310-3"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Health Concern" />
    <!-- This Health Concern has a statusCode of active because it is an active concern -->
    <statusCode code="active" />
    <!-- The effective time is the date that the Health Concern started being followed --
        this does not necessarily correlate to the onset date of the contained health issues-->
<>
    <effectiveTime value="20130616" />
    <!-- Health Concern: Current every day smoker-->
    <entryRelationship typeCode="REFR">
        <!-- Tobacco Use (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.85" extension="2014-06-09" />
        ...
        </observation>
    </entryRelationship>
    <!-- Health Concern Problem: Respiratory insufficiency -->
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
        ...
        </observation>
    </entryRelationship>
    <!-- Health Concern Diagnosis: Pneumonia -->
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
        ...
        </observation>
    </entryRelationship>
<!--
    This is an entry relationship of the SPRT (support) type which shows
    that the productive cough supports the Health Concern (Problem: Respiratory
    Insufficiency and Diagnosis: Pneumonia
    This entryRelationship represents the relationship:
        Health Concern HAS SUPPORT Observation
-->
    <entryRelationship typeCode="SPRT">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
        ...
        </observation>
    </entryRelationship>
```

```

<!-- Priority Preference -->
<entryRelationship typeCode="RSON">
    <!-- Priority Preference - this is the preference that the patient
(specified by the Author Participation template)
places on the Health Concern -->
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.143" />
    ...
    </observation>
</entryRelationship>
<!-- Priority Preference - this is the preference that the provider
(specified by the Author Participation template)
places on the Health Concern -->
<entryRelationship typeCode="RSON">
    <!-- Priority Preference -->
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.143" />
    ...
    </observation>
</entryRelationship>
</act>

```

## 4.37 Health Status Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09  
(open)]

**Table 302: Health Status Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concerns Section (V2)</a> (optional) <a href="#">Problem Section (entries optional) (V3)</a> (optional) <a href="#">Problem Section (entries required) (V3)</a> (optional)	

This template represents information about the overall health status of the patient. To represent the impact of a specific problem or concern related to the patient's expected health outcome use the Prognosis Observation template 2.16.840.1.113883.10.20.22.4.113.

**Table 303: Health Status Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-9057</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-9072</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-16756</a>	
@root	1..1	SHALL		<a href="#">1098-16757</a>	2.16.840.1.113883.10.20.22.4.5
@extension	1..1	SHALL		<a href="#">1098-32558</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-32486</a>	
code	1..1	SHALL		<a href="#">1098-19143</a>	
@code	1..1	SHALL		<a href="#">1098-19144</a>	11323-3
@codeSystem	1..1	SHALL		<a href="#">1098-32161</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-9074</a>	
@code	1..1	SHALL		<a href="#">1098-19103</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1098-9075</a>	urn:oid:2.16.840.1.113883.1.11.20.12 (HealthStatus)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-9057).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-9072).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-16756) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.5"** (CONF:1098-16757).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32558).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-32486).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19143).
  - a. This code **SHALL** contain exactly one [1..1] **@code="11323-3"** Health status (CONF:1098-19144).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32161).

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-9074).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19103).
7. **SHALL** contain exactly one [1..1] **value** with `@xsi:type="CD"`, where the code **SHALL** be selected from ValueSet [HealthStatus](#) urn:oid:2.16.840.1.113883.1.11.20.12 **DYNAMIC** (CONF:1098-9075).

**Table 304: HealthStatus**

Value Set: HealthStatus urn:oid:2.16.840.1.113883.1.11.20.12 Represents the general health status of the patient. Value Set Source: <a href="https://www.hl7.org/">https://www.hl7.org/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
81323004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Alive and well
313386006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	In remission
162467007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Symptom free
161901003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Chronically ill
271593001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Severely ill
21134002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Disabled
161045001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Severely disabled
419099009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Deceased
135818000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	General health poor
135815002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	General health good
...			

**Figure 158: Health Status Observation (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.5" extension="2014-06-09"/>
  <code code="11323-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Health status" />
  <text>
    <reference value="#healthstatus" />
  </text>
  <statusCode code="completed" />
  <value xsi:type="CD" code="81323004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Alive and well" />
</observation>

```

## 4.38 Highest Pressure Ulcer Stage

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.77 (open) ]

**Table 305: Highest Pressure Ulcer Stage Contexts**

Contained By:	Contains:
<a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)	

This observation contains a description of the wound tissue of the most severe or highest staged pressure ulcer observed on a patient.

**Table 306: Highest Pressure Ulcer Stage Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.77)					
@classCode	1..1	SHALL		<a href="#">81-14726</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-14727</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-14728</a>	
@root	1..1	SHALL		<a href="#">81-14729</a>	2.16.840.1.113883.10.20.22.4.7 7
id	1..*	SHALL		<a href="#">81-14730</a>	
code	1..1	SHALL		<a href="#">81-14731</a>	
@code	1..1	SHALL		<a href="#">81-14732</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 420905001
value	1..1	SHALL		<a href="#">81-14733</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-14726).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-14727).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-14728) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.77" (CONF:81-14729).
4. **SHALL** contain at least one [1..\*] id (CONF:81-14730).
5. **SHALL** contain exactly one [1..1] code (CONF:81-14731).
  - a. This code **SHALL** contain exactly one [1..1] @code="420905001" Highest Pressure Ulcer Stage (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:81-14732).
6. **SHALL** contain exactly one [1..1] value (CONF:81-14733).

**Figure 159: Highest Pressure Ulcer Stage Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.77"/>
  <id root="08edb7c0-2111-43f2-a784-9a5fdfaa67f0"/>
  <code code="420905001" codeSystem="2.16.840.1.113883.6.96"
    displayName=" Highest Pressure Ulcer Stage"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="421306004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="necrotic eschar"/>
</observation>
```

## 4.39 Hospital Admission Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01 (open)]

**Table 307: Hospital Admission Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Admission Diagnosis Section (V3)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Problem Observation (V3)</a> (required)

This template represents problems or diagnoses identified by the clinician at the time of the patient's admission.

This Hospital Admission Diagnosis act may contain more than one Problem Observation to represent multiple diagnoses for a Hospital Admission.

**Table 308: Hospital Admission Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7671</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-7672</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-16747</a>	
@root	1..1	SHALL		<a href="#">1198-16748</a>	2.16.840.1.113883.10.20.22.4.34
@extension	1..1	SHALL		<a href="#">1198-32535</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19145</a>	
@code	1..1	SHALL		<a href="#">1198-19146</a>	46241-6
@codeSystem	1..1	SHALL		<a href="#">1198-32162</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-7674</a>	
@typeCode	1..1	SHALL		<a href="#">1198-7675</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15535</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7671).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7672).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16747) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.34"** (CONF:1198-16748).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32535).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19145).
  - a. This code **SHALL** contain exactly one [1..1] **@code="46241-6"** Admission diagnosis (CONF:1198-19146).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32162).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-7674) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-7675).
- b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15535).

**Figure 160: Hospital Admission Diagnosis (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.34" extension="2015-08-01" />
  <id root="5a784260-6856-4f38-9638-80c751aff2fb" />
  <code code="46241-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Hospital Admission Diagnosis" />
  <statusCode code="active" />
  <effectiveTime>
    <low value="20090303" />
  </effectiveTime>
  <entryRelationship typeCode="SUBJ" inversionInd="false">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Problem observation template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      ...
      ...
      </observation>
    </entryRelationship>
  </act>

```

## 4.40 Hospital Discharge Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.33:2015-08-01 (open)]

**Table 309: Hospital Discharge Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Discharge Diagnosis Section (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (required)

This template represents problems or diagnoses present at the time of discharge which occurred during the hospitalization or need to be monitored after hospitalization. It requires at least one Problem Observation entry.

**Table 310: Hospital Discharge Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.33:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7663</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-7664</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-16764</a>	
@root	1..1	SHALL		<a href="#">1198-16765</a>	2.16.840.1.113883.10.20.22.4.33
@extension	1..1	SHALL		<a href="#">1198-32534</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19147</a>	
@code	1..1	SHALL		<a href="#">1198-19148</a>	11535-2
@codeSystem	1..1	SHALL		<a href="#">1198-32163</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-7666</a>	
@typeCode	1..1	SHALL		<a href="#">1198-7667</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15536</a>	<a href="#">Problem Observation (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7663).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7664).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16764) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.33"** (CONF:1198-16765).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32534).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19147).
  - a. This code **SHALL** contain exactly one [1..1] **@code="11535-2"** Hospital discharge diagnosis (CONF:1198-19148).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32163).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-7666) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-7667).
- b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15536).

**Figure 161: Hospital Discharge Diagnosis (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.33" extension="2015-08-01"/>
  <id root="5a784260-6856-4f38-9638-80c751aff2fb" />
  <code code="11535-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HOSPITAL DISCHARGE DIAGNOSIS" />
  <statusCode code="active" />
  <effectiveTime>
    <low value="201209091904-0400" />
  </effectiveTime>
  <entryRelationship typeCode="SUBJ" inversionInd="false">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Problem observation template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      ...
      </observation>
    </entryRelationship>
  </act>

```

## 4.41 Immunization Activity (V3)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01 (open) ]

**Table 311: Immunization Activity (V3) Contexts**

Contained By:	Contains:
<a href="#">Immunizations Section (entries required) (V3)</a> (required) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Drug Vehicle</a> (optional) <a href="#">Immunization Refusal Reason</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Substance Administered Act</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

An Immunization Activity describes immunization substance administrations that have actually occurred or are intended to occur. Immunization Activities in "INT" mood are reflections of immunizations a clinician intends a patient to receive. Immunization Activities in "EVN" mood reflect immunizations actually received.

An Immunization Activity is very similar to a Medication Activity with some key differentiators. The drug code system is constrained to CVX codes. Administration timing is less complex. Patient refusal reasons should be captured. All vaccines administered should be fully documented in the patient's permanent medical record. Healthcare providers who administer vaccines covered by the National Childhood Vaccine Injury Act are required to ensure that the permanent medical record of the recipient indicates:

- 1) Date of administration
- 2) Vaccine manufacturer
- 3) Vaccine lot number
- 4) Name and title of the person who administered the vaccine and the address of the clinic or facility where the permanent record will reside
- 5) Vaccine information statement (VIS)
  - a. Date printed on the VIS
  - b. Date VIS given to patient or parent/guardian.

This information should be included in an Immunization Activity when available. (Reference: <https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/c/vis-instruct.pdf>)

**Table 312: Immunization Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8826</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1198-8827</a>	urn:oid:2.16.840.1.113883.11.2 0.9.18 (MoodCodeEvnInt)
@negationInd	1..1	SHALL		<a href="#">1198-8985</a>	
templateId	1..1	SHALL		<a href="#">1198-8828</a>	
@root	1..1	SHALL		<a href="#">1198-10498</a>	2.16.840.1.113883.10.20.22.4.5 2
@extension	1..1	SHALL		<a href="#">1198-32528</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8829</a>	
code	0..1	MAY		<a href="#">1198-8830</a>	
statusCode	1..1	SHALL		<a href="#">1198-8833</a>	
@code	1..1	SHALL		<a href="#">1198-32359</a>	urn:oid:2.16.840.1.113883.1.11. 15933 (ActStatus)
effectiveTime	1..1	SHALL		<a href="#">1198-8834</a>	
repeatNumber	0..1	MAY		<a href="#">1198-8838</a>	
routeCode	0..1	MAY		<a href="#">1198-8839</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.7 (Medication Route FDA)
translation	0..*	SHOULD		<a href="#">1198-32960</a>	urn:oid:2.16.840.1.113762.1.4.1 099.12 (Medication Route)
approachSiteCode	0..1	MAY	SET<C D>	<a href="#">1198-8840</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
doseQuantity	0..1	SHOULD		<a href="#">1198-8841</a>	
@unit	0..1	SHOULD		<a href="#">1198-8842</a>	urn:oid:2.16.840.1.113883.1.11. 12839 (UnitsOfMeasureCaseSensitive)
administrationUnitCode	0..1	MAY		<a href="#">1198-8846</a>	urn:oid:2.16.840.1.113762.1.4.1 021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1198-8847</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1198-15546</a>	<a href="#">Immunization Medication Information (V2) (identifier:</a>

					<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09</a>
performer	0..1	SHOULD		<a href="#">1198-8849</a>	
author	0..*	SHOULD		<a href="#">1198-31151</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1198-8850</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8851</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1198-15547</a>	<a href="#">Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24)</a>
entryRelationship	0..*	MAY		<a href="#">1198-8853</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8854</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15537</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8856</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8857</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-8858</a>	true
act	1..1	SHALL		<a href="#">1198-31392</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8860</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8861</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15539</a>	<a href="#">Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8863</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8864</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15540</a>	<a href="#">Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)</a>

					<a href="#">20.22.4.18:2014-06-09</a>
entryRelationship	0..1	MAY		<a href="#">1198-8866</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8867</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = CAUS
observation	1..1	SHALL		<a href="#">1198-15541</a>	<a href="#">Reaction Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09</a>
entryRelationship	0..1	MAY		<a href="#">1198-8988</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8989</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15542</a>	<a href="#">Immunization Refusal Reason</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.53</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-31510</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31511</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1198-31512</a>	true
sequenceNumber	0..1	MAY		<a href="#">1198-31513</a>	
act	1..1	SHALL		<a href="#">1198-31514</a>	<a href="#">Substance Administered Act</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.118</a>
precondition	0..*	MAY		<a href="#">1198-8869</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8870</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1198-15548</a>	<a href="#">Precondition for Substance Administration (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8826).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** (CONF:1198-8827).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1198-8985).  
Note: Use negationInd="true" to indicate that the immunization was not given.
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8828) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.52" (CONF:1198-10498).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32528).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8829).
6. **MAY** contain zero or one [0..1] **code** (CONF:1198-8830).  
 Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used and there is no defined value set.
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8833).
- a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1198-32359).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8834).
- In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.
9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1198-8838).
10. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [Medication Route FDA](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1198-8839).
- a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1198-32960).
11. **MAY** contain zero or one [0..1] **approachSiteCode**, where the code **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1198-8840).
12. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:1198-8841).
- a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-8842).
13. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1198-8846).
14. **SHALL** contain exactly one [1..1] **consumable** (CONF:1198-8847).
- a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1198-15546).
15. **SHOULD** contain zero or one [0..1] **performer** (CONF:1198-8849).
16. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31151).

17. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-8850) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8851).
  - SHALL** contain exactly one [1..1] Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1198-15547).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-8853) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8854).
  - SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-15537).
19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8856) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8857).
  - SHALL** contain exactly one [1..1] @**inversionInd**="true" True (CONF:1198-8858).
  - SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1198-31392).
20. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8860) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8861).
  - SHALL** contain exactly one [1..1] Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1198-15539).
21. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8863) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8864).
  - SHALL** contain exactly one [1..1] Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1198-15540).
22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8866) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8867).
  - SHALL** contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1198-15541).
23. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8988) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8989).
- b. **SHALL** contain exactly one [1..1] Immunization Refusal Reason (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53) (CONF:1198-15542).

The following entryRelationship is used to indicate a given immunization's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

24. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31510) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31511).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1198-31512).
  - c. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1198-31513).
  - d. **SHALL** contain exactly one [1..1] Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1198-31514).
25. **MAY** contain zero or more [0..\*] **precondition** (CONF:1198-8869) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRCN" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8870).
  - b. **SHALL** contain exactly one [1..1] Precondition for Substance Administration (v2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1198-15548).

**Table 313: MoodCodeEvnInt**

Value Set: MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 Contains moodCode EVN and INT Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
EVN	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Event
INT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Intent

**Table 314: Medication Route FDA**

Value Set: Medication Route FDA urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 Route of Administration value set is based upon FDA Drug Registration and Listing Database (FDA Orange Book) which are used in FDA Structured Product Labeling (SPL). Value Set Source: <a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.8.7">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.8.7</a>			
Code	Code System	Code System OID	Print Name
C38192	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	AURICULAR (OTIC)
C38193	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	BUCCAL
C38194	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	CONJUNCTIVAL
C38675	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	CUTANEOUS
C38197	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	DENTAL
C38633	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	ELECTRO-OSMOSIS
C38205	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	ENDOCERVICAL
C38206	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	ENDOSINUSIAL
C38208	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	ENDOTRACHEAL
C38209	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	ENTERAL
...			

**Table 315: Medication Route**

Value Set: Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12 (Clinical Focus: Terms used to describe the path by which a substance is taken into the body.),(Data Element Scope: ),(Inclusion Criteria: All SNOMED_CT values descending from 284009009 route of administration value),(Exclusion Criteria: )  This value set was imported on 9/21/2017 with a version of 20170914. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion</a>			
Code	Code System	Code System OID	Print Name
10547007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Otic route (qualifier value)
12130007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intra-articular route (qualifier value)
127490009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Gastrostomy route (qualifier value)
127491008	SNOMED CT	urn:oid:2.16.840.1.11388	Jejunostomy route

		3.6.96	(qualifier value)
127492001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Nasogastric route (qualifier value)
1611000175109	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Sublesional route (qualifier value)
16857009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Vaginal route (qualifier value)
26643006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Oral route (qualifier value)
34206005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Subcutaneous route (qualifier value)
37161004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Rectal route (qualifier value)
...			

**Table 316: Body Site**

Value Set: Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 Contains values descending from the SNOMED CT® Anatomical Structure (91723000) hierarchy or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005) This indicates the anatomical site. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
362783006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	entire medial surface of lower extremity (body structure)
302539009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	entire hand (body structure)
287679003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	left hip region structure (body structure)
3341006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	right lung structure (body structure)
87878005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	left ventricular structure (body structure)
49848007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	structure of myocardium of left ventricle (body structure)
38033009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	amputation stump (body structure)
305005006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	6/7 interchondral joint (body structure)
28726007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	corneal structure (body structure)
75324005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	70 to 79 percent of body surface (body structure)
...			

**Table 317: UnitsOfMeasureCaseSensitive**

Value Set: UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 The UCUM code system provides a set of structural units from which working codes are built. There is an unlimited number of possible valid UCUM codes. Value Set Source: <a href="http://unitsofmeasure.org/ucum.html">http://unitsofmeasure.org/ucum.html</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
min	UCUM	urn:oid:2.16.840.1.11388 3.6.8	minute
hour	UCUM	urn:oid:2.16.840.1.11388 3.6.8	hr
%	UCUM	urn:oid:2.16.840.1.11388 3.6.8	percent
cm	UCUM	urn:oid:2.16.840.1.11388 3.6.8	centimeter
g	UCUM	urn:oid:2.16.840.1.11388 3.6.8	gram
g/(12.h)	UCUM	urn:oid:2.16.840.1.11388 3.6.8	gram per 12 hour
g/L	UCUM	urn:oid:2.16.840.1.11388 3.6.8	gram per liter
mol	UCUM	urn:oid:2.16.840.1.11388 3.6.8	mole
[IU]	UCUM	urn:oid:2.16.840.1.11388 3.6.8	international unit
Hz	UCUM	urn:oid:2.16.840.1.11388 3.6.8	Hertz
...			

**Table 318: AdministrationUnitDoseForm**

Value Set: AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30

(Clinical Focus: Codes that are similar to a drug "form" but limited to those used as units when describing drug administration when the drug item is a physical form that is continuous and therefore not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc.),(Data Element Scope: C-CDA substanceAdministration/administrationUnitCode),(Inclusion Criteria: Unit concepts describing drug administration when the drug item is not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.)),(Exclusion Criteria: This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc. Does not include standard measurement units (inch, ounce, gram, etc.))

This value set was imported on 10/10/2017 with a version of 20170619.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
C102405	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Capful Dosing Unit
C122629	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Actuation Dosing Unit
C122631	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Dropperful Dosing Unit
C25397	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Application Unit
C44278	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Unit
C48491	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Metric Drop
C48501	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Inhalation Dosing Unit
C48536	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Scoopful Dosing Unit
C48537	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Spray Dosing Unit
C65060	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.11388 3.3.26.1.1	Puff Dosing Unit
...			

**Figure 162: Immunization Activity (V3) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
    <!-- ** Immunization activity -->
    <templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2015-08-01" />
    <id root="e6f1ba43-c0ed-4b9b-9f12-f435d8ad8f92" />
    <statusCode code="completed" />
    <effectiveTime value="19981215" />
    <routeCode code="C28161" codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="National Cancer Institute (NCI) Thesaurus" displayName="Intramuscular
injection" />
    <doseQuantity value="50" unit="ug" />
    <consumable>
        <manufacturedProduct classCode="MANU">
            <!-- ** Immunization medication information -->
            <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />
            <manufacturedMaterial>
                <code code="33" codeSystem="2.16.840.1.113883.6.59"
displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
                    <translation code="854981" displayName="Pneumovax 23 (Pneumococcal
vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM"
codeSystem="2.16.840.1.113883.6.88" />
                </code>
                <lotNumberText>1</lotNumberText>
            </manufacturedMaterial>
            <manufacturerOrganization>
                <name>Health LS - Immuno Inc.</name>
            </manufacturerOrganization>
        </manufacturedProduct>
    </consumable>
    <performer>
        <assignedEntity>
            <id root="2.16.840.1.113883.19.5.9999.456" extension="2981824" />
            <addr>
                <streetAddressLine>1007 Health Drive</streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
            <telecom use="WP" value="tel: +(555)-555-1030" />
        <assignedPerson>
            <name>
                <given>Harold</given>
                <family>Hippocrates</family>
            </name>
        </assignedPerson>
        <representedOrganization>
            <id root="2.16.840.1.113883.19.5.9999.1394" />
            <name>Good Health Clinic</name>
            <telecom use="WP" value="tel: +(555)-555-1030" />
            <addr>
                <streetAddressLine>1007 Health Drive</streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
        </representedOrganization>
    </assignedEntity>

```

```

        </addr>
    </representedOrganization>
    </assignedEntity>
    </performer>
</substanceAdministration>

```

## 4.42 Immunization Medication Information (V2)

[manufacturedProduct: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 (open) ]

**Table 319: Immunization Medication Information (V2) Contexts**

Contained By:	Contains:
<a href="#">Planned Supply (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (required) <a href="#">Immunization Activity (V3)</a> (required)	

The Immunization Medication Information represents product information about the immunization substance. The vaccine manufacturer and vaccine lot number are typically recorded in the medical record and should be included if known.

**Table 320: Immunization Medication Information (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-9002</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">1098-9004</a>	
@root	1..1	SHALL		<a href="#">1098-10499</a>	2.16.840.1.113883.10.20.22.4.54
@extension	1..1	SHALL		<a href="#">1098-32602</a>	2014-06-09
id	0..*	MAY		<a href="#">1098-9005</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">1098-9006</a>	
code	1..1	SHALL		<a href="#">1098-9007</a>	urn:oid:2.16.840.1.113762.1.4.1010.6 (CVX Vaccines Administered - Vaccine Set )
translation	0..*	MAY		<a href="#">1098-31543</a>	urn:oid:2.16.840.1.113762.1.4.1010.8 (Vaccine Clinical Drug)
translation	0..*	MAY		<a href="#">1098-31881</a>	
lotNumberText	0..1	SHOULD		<a href="#">1098-9014</a>	
manufacturerOrganization	0..1	SHOULD		<a href="#">1098-9012</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-9002).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-9004) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.54"** (CONF:1098-10499).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32602).
3. **MAY** contain zero or more [0..\*] **id** (CONF:1098-9005).
4. **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1098-9006).
  - a. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [CVX Vaccines Administered - Vaccine Set](#) urn:oid:2.16.840.1.113762.1.4.1010.6 **DYNAMIC** (CONF:1098-9007).
    - i. This code **MAY** contain zero or more [0..\*] **translation**, which **MAY** be selected from ValueSet [Vaccine Clinical Drug](#) urn:oid:2.16.840.1.113762.1.4.1010.8 **DYNAMIC** (CONF:1098-31543).
    - ii. This code **MAY** contain zero or more [0..\*] **translation** (CONF:1098-31881).

lotNumberText should be included if known. It may not be known for historical immunizations, planned immunizations, or refused/deferred immunizations.

- b. This manufacturedMaterial **SHOULD** contain zero or one [0..1] **lotNumberText** (CONF:1098-9014).
- 5. **SHOULD** contain zero or one [0..1] **manufacturerOrganization** (CONF:1098-9012).

**Table 321: CVX Vaccines Administered - Vaccine Set**

<p>Value Set: CVX Vaccines Administered - Vaccine Set urn:oid:2.16.840.1.113762.1.4.1010.6</p> <p>CVX vaccine concepts that represent actual vaccines types. This does not include the identifiers for CVX codes that do not represent vaccines.</p> <p>Value set intensionally defined from CVX (OID: 2.16.840.1.113883.12.292)</p> <p>FilterOnProperty(nonvaccine, FALSE).</p> <p>Value Set Source: <a href="http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx">http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx</a></p>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
19	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.11388 3.12.292	BCG
26	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.11388 3.12.292	Cholera
24	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.11388 3.12.292	Anthrax
27	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.11388 3.12.292	Botulinum antitoxin
...			

**Table 322: Vaccine Clinical Drug**

Value Set: Vaccine Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.8 Administrable vaccine medication formulations represented using either a "generic" or "brand-specific" concept. Value set intensionally defined from RXNORM (OID: 2.16.840.1.113883.6.88), comprised of those codes whose ingredients map to NDC codes that the CDC associates with CVX codes. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
898572	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.17 ML Rho(D) Immune Globulin 0.3 MG/ML Prefilled Syringe [HyperRHO]
807276	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 4 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Prefilled Syringe [Decavac]
798482	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Hepatitis A Vaccine (Inactivated) Strain HM175 1440 UNT/ML Prefilled Syringe [Havrix]
836636	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Hepatitis A Vaccine, Inactivated 50 UNT/ML Prefilled Syringe [Vaqta]
...			

**Figure 163: Immunization Medication Information (V2) Example**

```

<manufacturedProduct classCode="MANU">
    <!-- ** Immunization medication information ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />
    <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
            <translation code="854981" displayName="Pneumovax 23 (Pneumococcal vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM" codeSystem="2.16.840.1.113883.6.88" />
        </code>
        <lotNumberText>1</lotNumberText>
    </manufacturedMaterial>
    <manufacturerOrganization>
        <name>Health LS - Immuno Inc.</name>
    </manufacturerOrganization>
</manufacturedProduct>

```

## 4.43 Immunization Refusal Reason

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.53 (open) ]

**Table 323: Immunization Refusal Reason Contexts**

Contained By:	Contains:
<a href="#">Immunization Activity (V3)</a> (optional)	

The Immunization Refusal Reason documents the rationale for the patient declining an immunization.

**Table 324: Immunization Refusal Reason Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53)					
@classCode	1..1	SHALL		<a href="#">81-8991</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-8992</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-8993</a>	
@root	1..1	SHALL		<a href="#">81-10500</a>	2.16.840.1.113883.10.20.22.4.53
id	1..*	SHALL		<a href="#">81-8994</a>	
code	1..1	SHALL		<a href="#">81-8995</a>	urn:oid:2.16.840.1.113883.1.11.19717 (No Immunization Reason Value Set)
statusCode	1..1	SHALL		<a href="#">81-8996</a>	
@code	1..1	SHALL		<a href="#">81-19104</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8991).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-8992).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8993) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.53"** (CONF:81-10500).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-8994).
5. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [No Immunization Reason Value Set](#) urn:oid:2.16.840.1.113883.1.11.19717 **DYNAMIC** (CONF:81-8995).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-8996).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19104).

**Table 325: No Immunization Reason Value Set**

Value Set: No Immunization Reason Value Set urn:oid:2.16.840.1.113883.1.11.19717 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
IMMUNE	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Immunity
MEDPREC	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Medical precaution
OSTOCK	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Out of stock
PATOBJ	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Patient objection
PHILISOP	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Philosophical objection
RELIG	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Religious objection
VACEFF	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Vaccine efficacy concerns
VACSAF	HL7ActReason	urn:oid:2.16.840.1.11388 3.5.8	Vaccine safety concerns

**Figure 164: Immunization Refusal Reason Example**

```
<observation classCode="OBS" moodCode="EVN">
<templateId root="2.16.840.1.113883.10.20.22.4.53"/>
<id root="2a620155-9d11-439e-92b3-5d9815ff4dd8"/>
<code displayName="Patient Objection" code="PATOBJ"
  codeSystemName="HL7 ActNoImmunizationReason" codeSystem="2.16.840.1.113883.5.8"/>
<statusCode code="completed"/>
</observation>
```

## 4.44 Indication (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09  
(open)]

**Table 326: Indication (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Procedure Indications Section (V2)</a> (optional) <a href="#">Patient Referral Act</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)	

This template represents the rationale for an action such as an encounter, a medication administration, or a procedure. The id element can be used to reference a problem recorded elsewhere in the document, or can be used with a code and value to record the problem. Indications for treatment are not laboratory results; rather the problem associated with the laboratory result should be cited (e.g., hypokalemia instead of a laboratory result of Potassium 2.0 mEq/L). Use the Drug Monitoring Act [templateId 2.16.840.1.113883.10.20.22.4.123] to indicate if a particular drug needs special monitoring (e.g., anticoagulant therapy). Use Precondition for Substance Administration (V2) [templateId 2.16.840.1.113883.10.20.22.4.25.2] to represent that a medication is to be administered only when the associated criteria are met.

**Table 327: Indication (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7480</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7481</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7482</a>	
@root	1..1	SHALL		<a href="#">1098-10502</a>	2.16.840.1.113883.10.20.22.4.19
@extension	1..1	SHALL		<a href="#">1098-32570</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7483</a>	
code	1..1	SHALL		<a href="#">1098-31229</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type)
statusCode	1..1	SHALL		<a href="#">1098-7487</a>	
@code	1..1	SHALL		<a href="#">1098-19105</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-7488</a>	
value	0..1	MAY	CD	<a href="#">1098-7489</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7480).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7481).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7482) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.19"** (CONF:1098-10502).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32570).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7483).
 

Note: If the id element is used to reference a problem recorded elsewhere in the document then this id must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. Its purpose is to obviate the need to repeat the complete XML representation of the referred to entry when relating one entry to another.
5. **SHALL** contain exactly one [1..1] **code**, which **MAY** be selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2014-09-02 (CONF:1098-31229).

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7487).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19105).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7488).
8. **MAY** contain zero or one [0..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7489).

**Figure 165: Indication (V2) Example**

```

<entry typeCode="DRIV">
  <substanceAdministration classCode="SBADM" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
    <!-- ** MEDICATION ACTIVITY -->
    <id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />
    <text>
      <reference value="#Med1" /> 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN
      wheezing
    </text>
    ...
    <!-- Indication snippet inside a Medication Activity -->
    <entryRelationship typeCode="RSON">
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
        <!-- Note that this id equals the problem observation/id -->
        <id root="db734647-fc99-424c-a864-7e3cda82e703" />
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
        <statusCode code="completed" />
        <value xsi:type="CD" code="32398004" displayName="Bronchitis"
        codeSystem="2.16.840.1.113883.6.96" />
      </observation>
    </entryRelationship>
    ...
  </substanceAdministration>
</entry>
<!-- Points to a problem on the problem list -->
<!-- Problem observation template
<templateId root="2.16.840.1.113883.10.20.22.4.4"/>
Note that this id equals the Indication observation/id
<id root="db734647-fc99-424c-a864-7e3cda82e703"/> -->
```

## 4.45 Instruction (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 (open) ]

**Table 328: Instruction (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Instructions Section (V2)</a> (required) <a href="#">Planned Immunization Activity (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	

The Instruction template can be used in several ways, such as to record patient instructions within a Medication Activity or to record fill instructions within a supply order. The template's moodCode can only be INT. If an instruction was already given, the Procedure Activity Act template (instead of this template) should be used to represent the already occurred instruction. The act/code defines the type of instruction. Though not defined in this template, a Vaccine Information Statement (VIS) document could be referenced through act/reference/externalDocument, and patient awareness of the instructions can be represented with the generic participant and the participant/awarenessCode.

**Table 329: Instruction (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7391</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-7392</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-7393</a>	
@root	1..1	SHALL		<a href="#">1098-10503</a>	2.16.840.1.113883.10.20.22.4.20
@extension	1..1	SHALL		<a href="#">1098-32598</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-16884</a>	urn:oid:2.16.840.1.113883.11.20.9.34 (Patient Education)
statusCode	1..1	SHALL		<a href="#">1098-7396</a>	
@code	1..1	SHALL		<a href="#">1098-19106</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7391).
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7392).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7393) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.20"** (CONF:1098-10503).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32598).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Patient Education](#) urn:oid:2.16.840.1.113883.11.20.9.34 **DYNAMIC** (CONF:1098-16884).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7396).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19106).

**Table 330: Patient Education**

Value Set: Patient Education urn:oid:2.16.840.1.113883.11.20.9.34 Limited to terms descending from the Education (409073007) hierarchy. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
311401005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Patient Education
171044003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Immunization Education
243072006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Cancer Education
...			

**Figure 166: Instruction (V2) Example**

```
<act classCode="ACT" moodCode="INT">
<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
<code code="171044003" codeSystem="2.16.840.1.113883.6.96" displayName="immunization
education" />
<text>
  <reference value="#immunSect" />
  Possible flu-like symptoms for three days.
</text>
<statusCode code="completed" />
</act>
```

## 4.46 Intervention Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01  
(open)]

**Table 331: Intervention Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Interventions Section (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Handoff Communication Participants</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)

This template represents an Intervention Act. It is a wrapper for intervention-type activities considered to be parts of the same intervention. For example, an activity such as "elevate head of bed" combined with "provide humidified O<sub>2</sub> per nasal cannula" may be the interventions performed for a health concern of "respiratory insufficiency" to achieve a goal of "pulse oximetry greater than 92%". These intervention activities may be newly described or derived from a variety of sources within an EHR.

Interventions are actions taken to increase the likelihood of achieving the patient's or providers' goals. An Intervention Act should contain a reference to a Goal Observation representing the reason for the intervention.

Intervention Acts can be related to each other, or to Planned Intervention Acts. (E.g., a Planned Intervention Act with moodCode of INT could be related to a series of Intervention Acts with moodCode of EVN, each having an effectiveTime containing the time of the intervention.)

All interventions referenced in an Intervention Act must have a moodCode of EVN, indicating that they have occurred.

**Table 332: Intervention Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-30971</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-30972</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-30973</a>	
@root	1..1	SHALL		<a href="#">1198-30974</a>	2.16.840.1.113883.10.20.22.4.1 31
@extension	1..1	SHALL		<a href="#">1198-32916</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-30975</a>	
code	1..1	SHALL		<a href="#">1198-30976</a>	
@code	1..1	SHALL		<a href="#">1198-30977</a>	362956003
@codeSystem	1..1	SHALL		<a href="#">1198-30978</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1198-30979</a>	
@code	1..1	SHALL		<a href="#">1198-32316</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1198-31624</a>	
author	0..*	SHOULD		<a href="#">1198-31552</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1198-30980</a>	
@typeCode	1..1	SHALL		<a href="#">1198-30981</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-30982</a>	<a href="#">Advance Directive Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-30984</a>	
@typeCode	1..1	SHALL		<a href="#">1198-30985</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1198-30986</a>	<a href="#">Immunization Activity (V3) (identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01</a>
entryRelationship	0..*	MAY	<a href="#">1198-30988</a>	
@typeCode	1..1	SHALL	<a href="#">1198-30989</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL	<a href="#">1198-30990</a>	<a href="#">Medication Activity (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09</a> )
entryRelationship	0..*	MAY	<a href="#">1198-30991</a>	
@typeCode	1..1	SHALL	<a href="#">1198-30992</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL	<a href="#">1198-30993</a>	<a href="#">Procedure Activity Act (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09</a> )
entryRelationship	0..*	MAY	<a href="#">1198-31154</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31155</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL	<a href="#">1198-32460</a>	<a href="#">Intervention Act (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01</a> )
entryRelationship	0..*	MAY	<a href="#">1198-31164</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31165</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-31166</a>	<a href="#">Procedure Activity Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09</a> )
entryRelationship	0..*	MAY	<a href="#">1198-31168</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31169</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL	<a href="#">1198-31170</a>	<a href="#">Procedure Activity Procedure (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09</a> )
entryRelationship	0..*	MAY	<a href="#">1198-31171</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31172</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) =

					REFR
encounter	1..1	SHALL		<a href="#">1198-31173</a>	<a href="#">Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-31174</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32956</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31176</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31177</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31178</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-31179</a>	<a href="#">Non-Medicinal Supply Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-31413</a>	
procedure	1..1	SHALL		<a href="#">1198-31414</a>	<a href="#">Nutrition Recommendation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130</a>
entryRelationship	0..*	MAY		<a href="#">1198-31545</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31554</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-31555</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-31621</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31622</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
act	1..1	SHALL		<a href="#">1198-31623</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122</a>
entryRelationship	0..*	MAY		<a href="#">1198-32317</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32318</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

act	1..1	SHALL		<a href="#">1198-32319</a>	Handoff Communication Participants (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.141)
entryRelationship	0..*	MAY		<a href="#">1198-32914</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32773</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32915</a>	<a href="#">Planned Intervention Act (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01)
reference	0..*	MAY		<a href="#">1198-32760</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32761</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1198-32762</a>	<a href="#">External Document Reference</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09)

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-30971).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-30972).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-30973) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.131"** (CONF:1198-30974).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32916).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-30975).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-30976).
  - a. This code **SHALL** contain exactly one [1..1] **@code="362956003"** procedure / intervention (navigational concept) (CONF:1198-30977).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-30978).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-30979).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-32316).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1198-31624).
8. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31552).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-30980) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-30981).
  - b. **SHALL** contain exactly one [1..1] [Advance Directive Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01) (CONF:1198-30982).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-30984) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-30985).
  - b. **SHALL** contain exactly one [1..1] [Immunization Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01) (CONF:1198-30986).
11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-30988) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-30989).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1198-30990).
12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-30991) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-30992).
  - b. **SHALL** contain exactly one [1..1] [Procedure Activity Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09) (CONF:1198-30993).
- The following entryRelationship represents the relationship between two Intervention Acts (Intervention RELATES TO Intervention).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31154) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31155).
  - b. **SHALL** contain exactly one [1..1] [Intervention Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01) (CONF:1198-32460).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31164) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31165).
  - b. **SHALL** contain exactly one [1..1] [Procedure Activity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09) (CONF:1198-31166).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31168) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31169).
  - b. **SHALL** contain exactly one [1..1] [Procedure Activity Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1198-31170).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31171) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31172).
  - b. **SHALL** contain exactly one [1..1] [Encounter Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:1198-31173).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31174) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32956).
  - b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1198-31176).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31177) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31178).
  - b. **SHALL** contain exactly one [1..1] [Non-Medicinal Supply Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09) (CONF:1198-31179).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31413) such that it
- a. **SHALL** contain exactly one [1..1] [Nutrition Recommendation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130) (CONF:1198-31414).
- Where an Intervention needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31545) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31554).
  - b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-31555).
- An Intervention Act should reference a Goal Observation. Because the Goal Observation is already described in the CDA document instance's Goals section, rather than repeating the full content of the Goal Observation, the Entry Reference template can be used to reference this entry. The following entryRelationship represents an Entry Reference to Goal Observation.
21. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31621) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31622).
  - b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-31623).
  - c. This entryReference template **SHALL** reference an instance of a Goal Observation template (CONF:1198-32459).
22. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32317) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32318).
  - b. **SHALL** contain exactly one [1..1] Handoff Communication Participants (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141) (CONF:1198-32319).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32914) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32773).
  - b. **SHALL** contain exactly one [1..1] Planned Intervention Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01) (CONF:1198-32915).
24. **MAY** contain zero or more [0..\*] **reference** (CONF:1198-32760).
- a. The reference, if present, **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32761).
  - b. The reference, if present, **SHALL** contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1198-32762).

**Figure 167: Intervention Act (moodCode="INT") Example**

```

<!--
This entry shows an act in intent mood (planned intervention-
meaning this is intended to be done), with the reason "RSN" for the act
being the already defined Goal (pulse ox reading > 92)
The intervention contains relationships to different components of
the intervention.
-->
<!-- Intervention Act -->
<act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.131" />
    <id root="85fa4b62-e3a9-4385-b064-fe04cca35adb" />
    <code code="code_for_intervention" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Intervention" />
    <statusCode code="active" />
    <entryRelationship typeCode="REFR">
        <!-- The following act is one part of the intervention -
            "Elevate head of bed" -->
        <!-- Procedure Activity Act -->
        <act classCode="ACT" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2015-08-01" />
            <id root="7658963e-54da-496f-bf18-dea1ddaa3b0" />
            <code code="423171007" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Elevate head of bed" />
            <statusCode code="active" />
        </act>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
        <!-- The following procedure is one part of the intervention -
            "Oxygen administration by nasal cannula" -->
        <!-- Procedure Activity Procedure -->
        <procedure classCode="PROC" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
            <id root="6a560f3d-88fd-4292-9415-f9371adaec46" />
            <code code="371907003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Oxygen administration by nasal cannula" />
            <statusCode code="active" />
        </procedure>
    </entryRelationship>
    <!-- This entryRelationship represents the relationship between an
Intervention Act and a Goal Observation (Intervention HAS REASON Goal).
The Entry Reference template is being used here as this Goal is
defined elsewhere in the CDA document -->
    <entryRelationship typeCode="RSON">
        <!-- Entry Reference template -->
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.122" />
            <!-- This id points to an already defined Goal
(pulse ox reading > 92) in the Goals Section -->
            <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
            <code nullFlavor="NP" />
            <statusCode code="completed" />
        </act>
    </entryRelationship>
</act>

```

## 4.47 Medical Equipment Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.22.4.135 (open) ]

**Table 333: Medical Equipment Organizer Contexts**

Contained By:	Contains:
<a href="#">Medical Equipment Section (V2)</a> (optional)	<a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional)

This template represents a set of current or historical medical devices, supplies, aids and equipment used by the patient. Examples are hearing aids, orthotic devices, ostomy supplies, visual aids, diabetic supplies such as syringes and pumps, and wheelchairs.

Devices that are applied during a procedure (e.g., cardiac pacemaker, gastrostomy tube, port catheter), whether permanent or temporary, are represented within the Procedure Activity Procedure (V2) template (templateId: 2.16.840.1.113883.10.20.22.4.14.2).

**Table 334: Medical Equipment Organizer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.135)					
@classCode	1..1	SHALL		<a href="#">1098-31020</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1098-31021</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31022</a>	
@root	1..1	SHALL		<a href="#">1098-31023</a>	2.16.840.1.113883.10.20.22.4.135
id	1..*	SHALL		<a href="#">1098-31024</a>	
code	0..1	MAY		<a href="#">1098-31025</a>	
statusCode	1..1	SHALL		<a href="#">1098-31026</a>	
@code	1..1	SHALL		<a href="#">1098-31029</a>	urn:oid:2.16.840.1.113883.11.20.9.39 (Result Status)
effectiveTime	1..1	SHALL		<a href="#">1098-32136</a>	
low	1..1	SHALL		<a href="#">1098-32378</a>	
high	1..1	SHALL		<a href="#">1098-32379</a>	
component	0..*	MAY		<a href="#">1098-31027</a>	
supply	1..1	SHALL		<a href="#">1098-31862</a>	<a href="#">Non-Medicinal Supply Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)</a>
component	0..*	MAY		<a href="#">1098-31887</a>	
procedure	1..1	SHALL		<a href="#">1098-31888</a>	<a href="#">Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-31020).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-31021).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-31022) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.135" (CONF:1098-31023).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31024).

This code can represent a category of devices. The code is strictly optional, and is not currently limited to any value set or code system. Implementers may use it if they wish to provide optional coded information about this grouping of medical equipment.

5. **MAY** contain zero or one [0..1] **code** (CONF:1098-31025).

The organizer is a collection of statuses for contained entries. The organizer remains active until all contained entries are done.

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31026).

- a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Result Status](#) urn:oid:2.16.840.1.113883.11.20.9.39 **STATIC** 2014-09-01 (CONF:1098-31029).

The effectiveTime can be used to show the time period over which the patient will be using the set of equipment. The organizer would probably not be used with devices applied in or on the patient.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-32136).

- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1098-32378).
- b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1098-32379).

8. **MAY** contain zero or more [0..\*] **component** (CONF:1098-31027) such that it

- a. **SHALL** contain exactly one [1..1] [Non-Medicinal Supply Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09) (CONF:1098-31862).

9. **MAY** contain zero or more [0..\*] **component** (CONF:1098-31887) such that it

- a. **SHALL** contain exactly one [1..1] [Procedure Activity Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-31888).

10. Either Non-Medicinal Supply Activity (V2)

(templateId:2.16.840.1.113883.10.20.22.4.50:2014-06-09) **OR** Procedure Activity Procedure (V2) (templateId:2.16.840.1.113883.10.20.22.4.14:2014-06-09) **SHALL** be present (CONF:1098-32380).

**Table 335: Result Status**

Value Set: Result Status urn:oid:2.16.840.1.113883.11.20.9.39			
Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	completed
held	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	held
suspended	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	suspended

**Figure 168: Medical Equipment Organizer Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.135" />
    <!-- Medical Equipment Organizer template -->
    <id root="3e414708-0e61-4d48-8863-484a2d473a02" />
    <code code="337588003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayNames="Incontinence appliances">
        <originalText>Incontinence appliances</originalText>
    </code>
    <statusCode code="completed" />
    <effectiveTime xsi:type="IVL_TS">
        <low value="20070103" />
        <high nullFlavor="UNK" />
    </effectiveTime>
    <component>
        <supply classCode="SPLY" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.50" extension="2014-06-09" />
            <!-- Non-medicinal supply activity V2 template ***** -->
            ...
        </supply>
    </component>
    <component>
        <supply classCode="SPLY" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.50" extension="2014-06-09" />
            <!-- Non-medicinal supply activity V2 template ***** -->
            ...
        </supply>
    </component>
</organizer>
```

## 4.48 Medication Activity (V2)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 (open) ]

**Table 336: Medication Activity (V2) Contexts**

Contained By:	Contains:
<a href="#">Medications Section (entries required) (V2)</a> (required) <a href="#">Medications Section (entries optional) (V2)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Admission Medication (V2)</a> (required) <a href="#">Medications Administered Section (V2)</a> (optional) <a href="#">Anesthesia Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Discharge Medication (V3)</a> (required)	<a href="#">Drug Vehicle</a> (optional) <a href="#">Drug Monitoring Act</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (required) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Substance Administered Act</a> (optional) <a href="#">Precondition for Substance Administration (V2)</a> (optional) <a href="#">Medication Free Text Sig</a> (optional)

A Medication Activity describes substance administrations that have actually occurred (e.g., pills ingested or injections given) or are intended to occur (e.g., "take 2 tablets twice a day for the next 10 days"). Medication activities in "INT" mood are reflections of what a clinician intends a patient to be taking. For example, a clinician may intend that a patient to be administered Lisinopril 20 mg PO for blood pressure control. If what was actually administered was Lisinopril 10 mg., then the Medication activities in the "EVN" mood would reflect actual use.

A moodCode of INT is allowed, but it is recommended that the Planned Medication Activity (V2) template be used for moodCodes other than EVN if the document type contains a section that includes Planned Medication Activity (V2) (for example a Care Plan document with Plan of Treatment, Intervention, or Goal sections).

At a minimum, a Medication Activity shall include an effectiveTime indicating the duration of the administration (or single-administration timestamp). Ambulatory medication lists generally provide a summary of use for a given medication over time - a medication activity in event mood with the duration reflecting when the medication started and stopped. Ongoing medications will not have a stop date (or will have a stop date with a suitable NULL value). Ambulatory medication lists will generally also have a frequency (e.g., a medication is being taken twice a day). Inpatient medications generally record each administration as a separate act.

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable and the interval of administration. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

**Table 337: Medication Activity (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7496</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1098-7497</a>	urn:oid:2.16.840.1.113883.11.2 0.9.18 (MoodCodeEvnInt)
templateId	1..1	SHALL		<a href="#">1098-7499</a>	
@root	1..1	SHALL		<a href="#">1098-10504</a>	2.16.840.1.113883.10.20.22.4.16
@extension	1..1	SHALL		<a href="#">1098-32498</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7500</a>	
code	0..1	MAY		<a href="#">1098-7506</a>	
statusCode	1..1	SHALL		<a href="#">1098-7507</a>	
@code	1..1	SHALL		<a href="#">1098-32360</a>	urn:oid:2.16.840.1.113762.1.4.1 099.11 (Medication Status)
effectiveTime	1..1	SHALL		<a href="#">1098-7508</a>	
@value	0..1	SHOULD		<a href="#">1098-32775</a>	
low	0..1	SHOULD		<a href="#">1098-32776</a>	
high	0..1	MAY		<a href="#">1098-32777</a>	
effectiveTime	0..1	SHOULD		<a href="#">1098-7513</a>	
@operator	1..1	SHALL		<a href="#">1098-9106</a>	A
repeatNumber	0..1	MAY		<a href="#">1098-7555</a>	
routeCode	0..1	SHOULD		<a href="#">1098-7514</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.7 (Medication Route FDA)
translation	0..*	SHOULD		<a href="#">1098-32950</a>	urn:oid:2.16.840.1.113762.1.4.1 099.12 (Medication Route)
approachSiteCode	0..1	MAY	SET<C D>	<a href="#">1098-7515</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
doseQuantity	1..1	SHALL		<a href="#">1098-7516</a>	
@unit	0..1	SHOULD		<a href="#">1098-7526</a>	urn:oid:2.16.840.1.113883.1.11. 12839

					(UnitsOfMeasureCaseSensitive)
rateQuantity	0..1	MAY		<a href="#">1098-7517</a>	
@unit	1..1	SHALL		<a href="#">1098-7525</a>	urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive)
maxDoseQuantity	0..1	MAY	RTO<PQ, PQ>	<a href="#">1098-7518</a>	
administrationUnitCode	0..1	MAY		<a href="#">1098-7519</a>	urn:oid:2.16.840.1.113762.1.4.1.021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1098-7520</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-16085</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
performer	0..1	MAY		<a href="#">1098-7522</a>	
author	0..*	SHOULD		<a href="#">1098-31150</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.119)</a>
participant	0..*	MAY		<a href="#">1098-7523</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7524</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1098-16086</a>	<a href="#">Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.24)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7536</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7537</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-16087</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1098-7539</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7540</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-7542</a>	true
act	1..1	SHALL		<a href="#">1098-31387</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1098-7543</a>	

@typeCode	1..1	SHALL		<a href="#">1098-7547</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-16089</a>	<a href="#">Medication Supply Order (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.17:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-7549</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7553</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-16090</a>	<a href="#">Medication Dispense (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.18:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-7552</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7544</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = CAUS
observation	1..1	SHALL		<a href="#">1098-16091</a>	<a href="#">Reaction Observation (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.9:2014-06-09</a>
entryRelationship	0..1	MAY		<a href="#">1098-30820</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30821</a>	COMP
act	1..1	SHALL		<a href="#">1098-30822</a>	<a href="#">Drug Monitoring Act (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.4.123</a>
entryRelationship	0..*	MAY		<a href="#">1098-31515</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31516</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-31517</a>	true
sequenceNumber	0..1	MAY		<a href="#">1098-31518</a>	
act	1..1	SHALL		<a href="#">1098-31519</a>	<a href="#">Substance Administered Act</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.4.118</a>
entryRelationship	0..*	MAY		<a href="#">1098-32907</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32908</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP

substanceAdministration	1..1	SHALL		<a href="#">1098-32909</a>	Medication Free Text Sig (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2.22.4.147</a>
precondition	0..*	MAY		<a href="#">1098-31520</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31882</a>	PRCN
criterion	1..1	SHALL		<a href="#">1098-31883</a>	Precondition for Substance Administration (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7496).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:1098-7497).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7499) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1098-10504).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32498).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-7500).
5. **MAY** contain zero or one [0..1] code (CONF:1098-7506).
 

Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used, and there is no defined value set.
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-7507).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [Medication Status](#) urn:oid:2.16.840.1.113762.1.4.1099.11 **DYNAMIC** (CONF:1098-32360).

The substance administration effectiveTime field can repeat, in order to represent varying levels of complex dosing. effectiveTime can be used to represent the duration of administration (e.g., "10 days"), the frequency of administration (e.g., "every 8 hours"), and more. Here, we require that there SHALL be an effectiveTime documentation of the duration (or single-administration timestamp), and that there SHOULD be an effectiveTime documentation of the frequency. Other timing nuances, supported by the base CDA R2 standard, may also be included.

7. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1098-7508) such that it
 

Note: This effectiveTime represents either the medication duration (i.e., the time the medication was started and stopped) or the single-administration timestamp.

  - a. **SHOULD** contain zero or one [0..1] @value (CONF:1098-32775).
 

Note: indicates a single-administration timestamp
  - b. **SHOULD** contain zero or one [0..1] low (CONF:1098-32776).
 

Note: indicates when medication started

- c. **MAY** contain zero or one [0..1] **high** (CONF:1098-32777).  
Note: indicates when medication stopped
  - d. This effectiveTime **SHALL** contain either a low or a @value but not both (CONF:1098-32890).
8. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7513) such that it  
Note: This effectiveTime represents the medication frequency (e.g., administration times per day).
  - a. **SHALL** contain exactly one [1..1] @operator="A" (CONF:1098-9106).
  - b. **SHALL** contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:1098-28499).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

- 9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-7555).
- 10. **SHOULD** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [Medication Route FDA](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-7514).
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHOULD** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32950).
- 11. **MAY** contain zero or one [0..1] **approachSiteCode**, where the code **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-7515).
- 12. **SHALL** contain exactly one [1..1] **doseQuantity** (CONF:1098-7516).
  - a. This doseQuantity **SHOULD** contain zero or one [0..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-7526).
  - b. Pre-coordinated consumable: If the consumable code is a pre-coordinated unit dose (e.g., "metoprolol 25mg tablet") then doseQuantity is a unitless number that indicates the number of products given per administration (e.g., "2", meaning 2 x "metoprolol 25mg tablet" per administration) (CONF:1098-16878).
  - c. Not pre-coordinated consumable: If the consumable code is not pre-coordinated (e.g., is simply "metoprolol"), then doseQuantity must represent a physical quantity with @unit, e.g., "25" and "mg", specifying the amount of product given per administration (CONF:1098-16879).
- 13. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:1098-7517).
  - a. The rateQuantity, if present, **SHALL** contain exactly one [1..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-7525).
- 14. **MAY** contain zero or one [0..1] **maxDoseQuantity** (CONF:1098-7518).

administrationUnitCode@code describes the units of medication administration for an item using a code that is pre-coordinated to include a physical unit form (ointment, powder,

solution, etc.) which differs from the units used in administering the consumable (capful, spray, drop, etc.). For example when recording medication administrations, “metric drop (C48491)” would be appropriate to accompany the RxNorm code of 198283 (Timolol 0.25% Ophthalmic Solution) where the number of drops would be specified in doseQuantity@value.

15. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1098-7519).
16. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-7520).
  - a. This consumable **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16085).
17. **MAY** contain zero or one [0..1] **performer** (CONF:1098-7522).
18. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31150).
19. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7523) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-7524).
  - b. **SHALL** contain exactly one [1..1] [Drug Vehicle](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1098-16086).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7536) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7537).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-16087).
21. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7539) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7540).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7542).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31387).
22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7543) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7547).
  - b. **SHALL** contain exactly one [1..1] [Medication Supply Order \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-16089).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7549) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7553).
  - b. **SHALL** contain exactly one [1..1] Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1098-16090).
24. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7552) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7544).
  - b. **SHALL** contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16091).
25. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-30820) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-30821).
  - b. **SHALL** contain exactly one [1..1] Drug Monitoring Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123) (CONF:1098-30822).
- The following entryRelationship is used to indicate a given medication's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.
26. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31515) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31516).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1098-31517).
  - c. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1098-31518).
  - d. **SHALL** contain exactly one [1..1] Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1098-31519).
27. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32907) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32908).
  - b. **SHALL** contain exactly one [1..1] Medication Free Text Sig (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147) (CONF:1098-32909).
28. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-31520).
- a. The precondition, if present, **SHALL** contain exactly one [1..1] @typeCode="PRCN" (CONF:1098-31882).
  - b. The precondition, if present, **SHALL** contain exactly one [1..1] Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-31883).
29. Medication Activity **SHOULD** include doseQuantity **OR** rateQuantity (CONF:1098-30800).

**Table 338: Medication Status**

Value Set: Medication Status urn:oid:2.16.840.1.113762.1.4.1099.11

(Clinical Focus: A coded concept indicating the current status of a Medication administration or fulfillment.),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: All concepts are subsumed by the selected concepts.)

This value set was imported on 9/21/2017 with a version of 20170914.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.11/expansion>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
aborted	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	active
completed	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	completed
nullified	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	nullified
suspended	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	suspended

**Figure 169: Medication Activity (V2) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
    <!-- ** Medication Activity (V2) -->
    <templateId root="2.16.840.1.113883.10.20.22.4.16"
        extension="2014-06-09"/>
    <id root="6c844c75-aa34-411c-b7bd-5e4a9f206e29"/>
    <statusCode code="active"/>
    <effectiveTime xsi:type="IVL_TS">
        <low value="20120318"/>
    </effectiveTime>
    <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
        <period value="12" unit="h"/>
    </effectiveTime>
    <routeCode code="C38288"
        codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="NCI Thesaurus"
        displayName="ORAL"/>
    <doseQuantity value="1"/>
    <consumable>
        <manufacturedProduct classCode="MANU">
            <!-- ** Medication information -->
            <templateId root="2.16.840.1.113883.10.20.22.4.23"
                extension="2014-06-09"/>
            <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8"/>
            <manufacturedMaterial>
                <code code="197380"
                    displayName="Atenolol 25 MG Oral Tablet"
                    codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>
            </manufacturedMaterial>
        </manufacturedProduct>
    </consumable>
    <entryRelationship typeCode="RSON">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Indication -->
            <templateId root="2.16.840.1.113883.10.20.22.4.19"
                extension="2014-06-09"/>
            <id root="e63166c7-6482-4a44-83a1-37ccdbde725b"/>
            <code code="75321-0"
                codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC"
                displayName="Clinical finding"/>
            <statusCode code="completed"/>
            <value xsi:type="CD"
                code="38341003"
                displayName="Hypertension"
                codeSystem="2.16.840.1.113883.6.96"/>
        </observation>
    </entryRelationship>
</substanceAdministration>
```

**Figure 170: No Known Medications Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="true">
    <!-- ** Medication activity -->
    <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
    <id root="072f00fc-4f9d-4516-8d6f-ed00ed523fe0" />
    <statusCode code="active" />
    <effectiveTime xsi:type="IVL_TS">
        <low value="20110103" />
    </effectiveTime>
    <consumable>
        <manufacturedProduct classCode="MANU">
            <!-- ** Medication information -->
            <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
            <manufacturedMaterial>
                <code nullFlavor="OTH" codeSystem="2.16.840.1.113883.6.88">
                    <translation code="410942007" displayName="drug or medication"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
                </code>
            </manufacturedMaterial>
        </manufacturedProduct>
    </consumable>
</substanceAdministration>
```

## 4.49 Medication Dispense (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09  
(open)]

**Table 339: Medication Dispense (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	<a href="#">US Realm Address (AD.US.FIELDED)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (optional)

This template records the act of supplying medications (i.e., dispensing).

**Table 340: Medication Dispense (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7451</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-7452</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7453</a>	
@root	1..1	SHALL		<a href="#">1098-10505</a>	2.16.840.1.113883.10.20.22.4.18
@extension	1..1	SHALL		<a href="#">1098-32580</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7454</a>	
statusCode	1..1	SHALL		<a href="#">1098-7455</a>	
@code	1..1	SHALL		<a href="#">1098-32361</a>	urn:oid:2.16.840.1.113883.3.88.12.80.64 (Medication Fill Status)
effectiveTime	0..1	SHOULD		<a href="#">1098-7456</a>	
repeatNumber	0..1	SHOULD		<a href="#">1098-7457</a>	
quantity	0..1	SHOULD		<a href="#">1098-7458</a>	
product	0..1	MAY		<a href="#">1098-7459</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-15607</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-9331</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-31696</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
performer	0..1	MAY		<a href="#">1098-7461</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-7467</a>	
addr	0..1	SHOULD		<a href="#">1098-7468</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.0.22.5.2)</a>
entryRelationship	0..1	MAY		<a href="#">1098-7473</a>	

@typeCode	1..1	SHALL		<a href="#">1098-7474</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-15606</a>	<a href="#">Medication Supply Order (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7451).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7452).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7453) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.18"** (CONF:1098-10505).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32580).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7454).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7455).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Medication Fill Status](#)  
urn:oid:2.16.840.1.113883.3.88.12.80.64 **STATIC** 2014-04-23 (CONF:1098-32361).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7456).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

7. **SHOULD** contain zero or one [0..1] **repeatNumber** (CONF:1098-7457).
8. **SHOULD** contain zero or one [0..1] **quantity** (CONF:1098-7458).
9. **MAY** contain zero or one [0..1] **product** (CONF:1098-7459) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-15607).
10. **MAY** contain zero or one [0..1] **product** (CONF:1098-9331) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31696).
11. **MAY** contain zero or one [0..1] **performer** (CONF:1098-7461).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-7467).
    - i. This assignedEntity **SHOULD** contain zero or one [0..1] [US Realm Address \(AD.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1098-7468).

1. The content of addr **SHALL** be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:1098-10565).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7473) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7474).
  - b. **SHALL** contain exactly one [1..1] **Medication Supply Order (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-15606).
13. A supply act **SHALL** contain one product/Medication Information **OR** one product/Immunization Medication Information template (CONF:1098-9333).

**Table 341: Medication Fill Status**

Value Set: Medication Fill Status urn:oid:2.16.840.1.113883.3.88.12.80.64 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Aborted
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Completed

**Figure 171: Medication Dispense (V2) Example**

```

<supply classCode="SPLY" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09" />
  <id root="1.2.3.4.56789.1" extension="cb734647-fc99-424c-a864-7e3cda82e704" />
  <statusCode code="completed" />
  <effectiveTime value="201208151450-0800" />
  <repeatNumber value="1" />
  <quantity value="75" />
  <product>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
      .
      .
      </manufacturedProduct>
    </product>
    <performer>
      <assignedEntity>
        .
        .
        </assignedEntity>
    </performer>
  </supply>

```

## 4.50 Medication Free Text Sig

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.147  
(closed) ]

**Table 342: Medication Free Text Sig Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	

The template is available to explicitly identify the free text Sig within each medication.

An example free text sig: Thyroxin 150 ug, take one tab by mouth every morning.

**Table 343: Medication Free Text Sig Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147)					
@classCode	1..1	SHALL		<a href="#">81-32770</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">81-32771</a>	urn:oid:2.16.840.1.113883.11.2 0.9.18 (MoodCodeEvnInt)
templateId	1..1	SHALL		<a href="#">81-32753</a>	
@root	1..1	SHALL		<a href="#">81-32772</a>	2.16.840.1.113883.10.20.22.4.147
code	1..1	SHALL		<a href="#">81-32775</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
@code	1..1	SHALL		<a href="#">81-32780</a>	76662-6
@codeSystem	1..1	SHALL		<a href="#">81-32781</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		<a href="#">81-32754</a>	
reference	1..1	SHALL		<a href="#">81-32755</a>	
@value	0..1	SHOULD		<a href="#">81-32756</a>	
consumable	1..1	SHALL		<a href="#">81-32776</a>	
manufacturedProduct	1..1	SHALL		<a href="#">81-32777</a>	
manufacturedLabeledDrug	1..1	SHALL		<a href="#">81-32778</a>	
@nullFlavor	1..1	SHALL		<a href="#">81-32779</a>	NA

1. **SHALL** contain exactly one [1..1] `@classCode="SBADM"` (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-32770).
2. **SHALL** contain exactly one [1..1] `@moodCode`, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:81-32771).  
Note: moodCode must match the parent substanceAdministration EVN or INT
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:81-32753) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.147"` (CONF:81-32772).
4. **SHALL** contain exactly one [1..1] `code` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32775).
  - a. This code **SHALL** contain exactly one [1..1] `@code="76662-6"` Instructions Medication (CONF:81-32780).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:81-32781).
5. **SHALL** contain exactly one [1..1] `text` (CONF:81-32754).

Reference into the section/text to a tag that only contains free text sig.

- a. This text **SHALL** contain exactly one [1..1] `reference` (CONF:81-32755).
  - i. This reference **SHOULD** contain zero or one [0..1] `@value` (CONF:81-32756).
    1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-32774).
6. **SHALL** contain exactly one [1..1] `consumable` (CONF:81-32776).
  - a. This consumable **SHALL** contain exactly one [1..1] `manufacturedProduct` (CONF:81-32777).
    - i. This manufacturedProduct **SHALL** contain exactly one [1..1] `manufacturedLabeledDrug` (CONF:81-32778).
      1. This manufacturedLabeledDrug **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` Not Applicable (CONF:81-32779).

**Figure 172: Medication Free Text Sig Example**

```
<!-- moodCode matches the parent substanceAdministration EVN or INT -->
<substanceAdministration classCode="SBADM" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.147"/>
  <code code="76662-6"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Medication Instructions"/>
  <text>
    <!-- Reference into the section.text to a tag that ONLY contains free text SIG -->
    <reference value="#AD1"/>
  </text>
  <consumable>
    <manufacturedProduct>
      <manufacturedLabeledDrug nullFlavor="NA"/>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

## 4.51 Medication Information (V2)

[manufacturedProduct: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 (open) ]

**Table 344: Medication Information (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (required) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (required) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional)	

A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., "metoprolol 25mg tablet", "amoxicillin 400mg/5mL suspension") where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

**Table 345: Medication Information (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7408</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">1098-7409</a>	
@root	1..1	SHALL		<a href="#">1098-10506</a>	2.16.840.1.113883.10.20.22.4.23
@extension	1..1	SHALL		<a href="#">1098-32579</a>	2014-06-09
id	0..*	MAY		<a href="#">1098-7410</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">1098-7411</a>	
code	1..1	SHALL		<a href="#">1098-7412</a>	urn:oid:2.16.840.1.113762.1.4.1010.4 (Medication Clinical Drug)
translation	0..*	MAY		<a href="#">1098-31884</a>	urn:oid:2.16.840.1.113762.1.4.1010.2 (Clinical Substance)
manufacturerOrganization	0..1	MAY		<a href="#">1098-7416</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-7408).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7409) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.23"** (CONF:1098-10506).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32579).
3. **MAY** contain zero or more [0..\*] **id** (CONF:1098-7410).
4. **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1098-7411).  
 Note: A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).
  - a. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [Medication Clinical Drug](#) urn:oid:2.16.840.1.113762.1.4.1010.4 **DYNAMIC** (CONF:1098-7412).
    - i. This code **MAY** contain zero or more [0..\*] **translation**, which **MAY** be selected from ValueSet [Clinical Substance](#) urn:oid:2.16.840.1.113762.1.4.1010.2 **DYNAMIC** (CONF:1098-31884).
5. **MAY** contain zero or one [0..1] **manufacturerOrganization** (CONF:1098-7416).

**Table 346: Medication Clinical Drug**

Value Set: Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4 All prescribable medication formulations represented using either a "generic" or "brand-specific" concept. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack), SCDG (semantic clinical drug group), SBDG (semantic brand drug group), SCDF (semantic clinical drug form), or SBDF (semantic brand drug form). Value set intensionally defined as a GROUPING made up of: Value Set: Medication Clinical General Drug (2.16.840.1.113883.3.88.12.80.17) (RxNorm Generic Drugs); Value Set: Medication Clinical Brand-specific Drug (2.16.840.1.113762.1.4.1010.5) (RxNorm Branded Drugs).			
Value Set Source: <a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785">http://phinvads.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785</a>			
Code	Code System	Code System OID	Print Name
978727	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	0.2 ML Dalteparin Sodium 12500 UNT/ML Prefilled Syringe [Fragmin]
827318	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	Acetaminophen 250 MG / Aspirin 250 MG / Caffeine 65 MG Oral Capsule
199274	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	Aspirin 300 MG Oral Capsule
362867	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	Cefotetan Injectable Solution [Cefotan]
...			

**Table 347: Clinical Substance**

Value Set: Clinical Substance urn:oid:2.16.840.1.113762.1.4.1010.2

All substances that may need to be represented in the context of health care related activities. This value set is quite broad in coverage and includes concepts that may never be needed in a health care activity event, particularly the included SNOMED CT concepts. The code system-specific value sets in this grouping value set are intended to provide broad coverage of all kinds of agents, but the expectation for use is that the chosen concept identifier for a substance should be appropriately specific and drawn from the appropriate code system as noted: prescribable medications should use RXNORM concepts, more specific drugs and chemicals should be represented using UNII concepts, and any substances not found in either of those two code systems, should use the appropriate SNOMED CT concept. This overarching grouping value set is intended to support identification of prescribable medications, foods, general substances and environmental entities.

Value set intensionally defined as a GROUPING made up of: Value Set: Medication Clinical Drug (2.16.840.1.113762.1.4.1010.4) (RxNorm generic and brand codes); Value Set: Unique Ingredient Identifier - Complete Set (2.16.840.1.113883.3.88.12.80.20) (UNII codes); Value Set: Substance Other Than Clinical Drug (2.16.840.1.113762.1.4.1010.9) (SNOMED CT codes).

Value Set Source: <https://vsac.nlm.nih.gov/>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
369436	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	6-Aminocaproic Acid Oral Tablet [Amicar]
1116447	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	Acepromazine Oral Tablet
9042592173	Unique Ingredient Identifier (UNII)	urn:oid:2.16.840.1.11388 3.4.9	ATROMEPINE
7673326042	Unique Ingredient Identifier (UNII)	urn:oid:2.16.840.1.11388 3.4.9	IRINOTECAN
413480003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Almond product (substance)
256915001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Aluminum hydroxide absorbed plasma (substance)
10020007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Biperiden hydrochloride (substance)
10133003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Cyclizine lactate (substance)
10174003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Procarbazine hydrochloride (substance)
102259006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Citrus fruit (substance)
...			

**Figure 173: Medication Information (V2) Example**

```
<manufacturedProduct classCode="MANU">
    <!-- ** Medication information ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
    <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
    <manufacturedMaterial>
        <code code="745679" displayName="200 ACTUAT Albuterol 0.09 MG/ACTUAT Metered Dose
Inhaler" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />
    </manufacturedMaterial>
    <manufacturerOrganization>
        <name>Medication Factory Inc.</name>
    </manufacturerOrganization>
</manufacturedProduct>
```

## 4.52 Medication Supply Order (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09  
(open)]

**Table 348: Medication Supply Order (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	<a href="#">Medication Information (V2)</a> (optional)
<a href="#">Medication Dispense (V2)</a> (optional)	<a href="#">Instruction (V2)</a> (optional)
<a href="#">Immunization Activity (V3)</a> (optional)	<a href="#">Immunization Medication Information (V2)</a> (optional)

This template records the intent to supply a patient with medications.

**Table 349: Medication Supply Order (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7427</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-7428</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-7429</a>	
@root	1..1	SHALL		<a href="#">1098-10507</a>	2.16.840.1.113883.10.20.22.4.17
@extension	1..1	SHALL		<a href="#">1098-32578</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7430</a>	
statusCode	1..1	SHALL		<a href="#">1098-7432</a>	
@code	1..1	SHALL		<a href="#">1098-32362</a>	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	0..1	SHOULD	IVL_TS	<a href="#">1098-15143</a>	
high	1..1	SHALL		<a href="#">1098-15144</a>	
repeatNumber	0..1	SHOULD		<a href="#">1098-7434</a>	
quantity	0..1	SHOULD		<a href="#">1098-7436</a>	
product	0..1	MAY		<a href="#">1098-7439</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-16093</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-9334</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-31695</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
author	0..1	MAY		<a href="#">1098-7438</a>	
entryRelationship	0..1	MAY		<a href="#">1098-7442</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7444</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ

@inversionInd	1..1	SHALL		<a href="#">1098-7445</a>	true
act	1..1	SHALL		<a href="#">1098-31391</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7427).
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7428).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7429) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.17"** (CONF:1098-10507).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32578).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7430).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7432).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1098-32362).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-15143) such that it
  - a. **SHALL** contain exactly one [1..1] **high** (CONF:1098-15144).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

7. **SHOULD** contain zero or one [0..1] **repeatNumber** (CONF:1098-7434).
8. **SHOULD** contain zero or one [0..1] **quantity** (CONF:1098-7436).
9. **MAY** contain zero or one [0..1] **product** (CONF:1098-7439) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16093).
10. **MAY** contain zero or one [0..1] **product** (CONF:1098-9334) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31695).
    - i. A supply act **SHALL** contain one product/Medication Information **OR** one product/Immunization Medication Information template (CONF:1098-16870).
11. **MAY** contain zero or one [0..1] **author** (CONF:1098-7438).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7442).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7444).

- b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-7445).
- c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Instruction (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31391).

**Figure 174: Medication Supply Order (V2) Example**

```

<supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17" extension="2014-06-09" />
    <id root="aba2fc75-1a43-435f-8309-d24e4be5f1cd" />
    <statusCode code="completed" />
    <effectiveTime xsi:type="IVL_TS">
        <low value="20070103" />
        <high nullFlavor="UNK" />
    </effectiveTime>
    <repeatNumber value="1" />
    <quantity value="75" />
    <product>
        <manufacturedProduct classCode="MANU">
            <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

            . . .
        </manufacturedProduct>
    </product>
    <author>

    . . .
</author>
<entryRelationship typeCode="SUBJ" inversionInd="true">
    <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

        . . .
    </act>
</entryRelationship>
</supply>

```

## 4.53 Mental Status Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01 (open) ]

**Table 350: Mental Status Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Mental Status Organizer (V3)</a> (required) <a href="#">Mental Status Section (V2)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Assessment Scale Observation</a> (optional) <a href="#">Author Participation</a> (optional)

The Mental Status Observation template represents an observation about mental status that can come from a broad range of subjective and objective information (including measured data) to address those categories described in the Mental Status Section. See also Assessment Scale Observation for specific collections of observations that together yield a summary evaluation of a particular condition.

**Table 351: Mental Status Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14249</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-14250</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14255</a>	
@root	1..1	SHALL		<a href="#">1198-14256</a>	2.16.840.1.113883.10.20.22.4.74
@extension	1..1	SHALL		<a href="#">1198-32565</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-14257</a>	
code	1..1	SHALL		<a href="#">1198-14591</a>	
@code	1..1	SHALL		<a href="#">1198-32788</a>	373930000
@codeSystem	1..1	SHALL		<a href="#">1198-32789</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
translation	1..1	SHALL		<a href="#">1198-32790</a>	
@code	1..1	SHALL		<a href="#">1198-32791</a>	75275-8
@codeSystem	1..1	SHALL		<a href="#">1198-32792</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-14254</a>	
@code	1..1	SHALL		<a href="#">1198-19092</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-14261</a>	
value	1..1	SHALL		<a href="#">1198-14263</a>	
author	0..*	SHOULD		<a href="#">1198-14266</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.02.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1198-14469</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14595</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Assessment Scale Observation</a>

				<u>14470</u>	<u>(identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.69)</u>
referenceRange	0..*	MAY		<u>1198- 14267</u>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14249).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14250).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14255) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.74"** (CONF:1198-14256).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32565).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-14257).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14591).
  - a. This code **SHALL** contain exactly one [1..1] **@code="373930000"** Cognitive function (CONF:1198-32788).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-32789).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32790) such that it
    - i. **SHALL** contain exactly one [1..1] **@code="75275-8"** Cognitive Function (CONF:1198-32791).
    - ii. **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-32792).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-14254).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19092).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-14261).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1198-14263).
  - a. If xsi:type="CD", **SHOULD** contain a code from SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1198-14271).
9. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-14266).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-14469) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14595).
  - b. **SHALL** contain exactly one [1..1] **Assessment Scale Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1198-14470).

The referenceRange could be used to represent normal or expected capability for the mental function being evaluated.

11. **MAY** contain zero or more [0..\*] **referenceRange** (CONF:1198-14267).

**Figure 175: Mental Status Observation (V3) Example**

```
<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Mental Status Organizer-->
    <templateId root="2.16.840.1.113883.10.20.22.4.75" extension="2015-08-01" />
    <id root="a7bc1062-8649-42a0-833d-ekd65bd013c9" />
    <code code="75275-8"
          displayName="Cognitive function"
          codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" />
    <statusCode code="completed" />
    <component>
      <observation classCode="OBS" moodCode="EVN">
        <!-- Mental Status Observation V3 -->
        <templateId root="2.16.840.1.113883.10.20.22.4.74" extension="2015-08-01" />
        ...
        <code code="373930000" displayName="Cognitive function"
              codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">
          <translation code="75275-8"
                      displayName="Cognitive function"
                      codeSystem="2.16.840.1.113883.6.1"
                      codeSystemName="LOINC"></translation>
        </code>
        <statusCode code="completed"/>
        ...
        <!-- Value element holds the Cognitive Function assessment -->
        ...
      </observation>
    </component>
    <component>
      <observation classCode="OBS" moodCode="EVN">
        <!-- Mental Status Observation V3 -->
        <templateId root="2.16.840.1.113883.10.20.22.4.74" extension="2015-08-01" />
        ...
        </observation>
    </component>
  </organizer>
</entry>
```

## 4.54 Mental Status Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.75:2015-08-01  
(open)]

**Table 352: Mental Status Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Mental Status Section (V2)</a> (optional)	<a href="#">Mental Status Observation (V3)</a> (required)

The Mental Status Organizer template may be used to group related Mental Status Observations (e.g., results of mental tests) and associated Assessment Scale Observations into subcategories and/or groupings by time. Subcategories can be things such as Mood and Affect, Behavior, Thought Process, Perception, Cognition, etc.

**Table 353: Mental Status Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.75:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14369</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1198-14371</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14375</a>	
@root	1..1	SHALL		<a href="#">1198-14376</a>	2.16.840.1.113883.10.20.22.4.7 5
@extension	1..1	SHALL		<a href="#">1198-32566</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-14377</a>	
code	1..1	SHALL		<a href="#">1198-14378</a>	
@code	1..1	SHALL		<a href="#">1198-14697</a>	
statusCode	1..1	SHALL		<a href="#">1198-14372</a>	
@code	1..1	SHALL		<a href="#">1198-19093</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1198-32424</a>	
component	1..*	SHALL		<a href="#">1198-14373</a>	
observation	1..1	SHALL		<a href="#">1198-14381</a>	<a href="#">Mental Status Observation (V3)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01)

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-14369).
  2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14371).
  3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14375) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.75" (CONF:1198-14376).
    - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32566).
  4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-14377).
- The code selected indicates the category that groups the contained mental status observations (e.g., communication, learning and applying knowledge).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14378).
    - a. This code **SHALL** contain exactly one [1..1] @code (CONF:1198-14697).
      - i. **SHOULD** be selected from ICF (codeSystem 2.16.840.1.113883.6.254) **OR** LOINC (codeSystem 2.16.840.1.113883.6.96) (CONF:1198-14698).
  6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-14372).
    - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19093).

The effectiveTime is an interval that spans the effectiveTimes of the contained mental status observations. Because all contained mental status observations have a required time stamp, it is not required that this effectiveTime be populated.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1198-32424).
  - a. The Organizer **SHALL** have at least one of **code** or **effectiveTime** (CONF:1198-32426).
8. **SHALL** contain at least one [1..\*] **component** (CONF:1198-14373) such that it
  - a. **SHALL** contain exactly one [1..1] **Mental Status Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:1198-14381).

**Figure 176: Mental Status Organizer (V3) Example**

```
<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- Mental Status Organizer V3-->
    <templateId root="2.16.840.1.113883.10.20.22.4.75" extension="2015-08-01" />
    <id root="a7bc1062-8649-42a0-833d-ekd65bd013c9" />
    <code code="75275-8"
          displayName="Cognitive function"
          codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" />
    <statusCode code="completed" />
    <component>
      <observation classCode="OBS" moodCode="EVN">
        <!-- Mental Status Observation V3-->
        <templateId root="2.16.840.1.113883.10.20.22.4.74" extension="2015-08-01" />
    />
    ...
    ...
    <code code="373930000" displayName="Cognitive function"
          codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">
      <translation code="75275-8"
                  displayName="Cognitive function"
                  codeSystem="2.16.840.1.113883.6.1"
                  codeSystemName="LOINC"></translation>
    </code>
    <statusCode code="completed"/>
    ...
    <!-- Value element holds the Cognitive Function assessment -->
    ...
  </observation>
</component>
<component>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Mental Status Observation V3 -->
    <templateId root="2.16.840.1.113883.10.20.22.4.74" extension="2015-08-01" />
  ...
  ...
  </observation>
</component>
</organizer>
</entry>
```

## 4.55 Non-Medicinal Supply Activity (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09  
(open)]

**Table 354: Non-Medicinal Supply Activity (V2) Contexts**

Contained By:	Contains:
<a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Medical Equipment Organizer</a> (optional) <a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Product Instance</a> (optional) <a href="#">Instruction (V2)</a> (optional)

This template represents equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs). Devices applied to, or placed in, the patient are represented with the Product Instance entry contained within a Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14)

**Table 355: Non-Medicinal Supply Activity (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8745</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-8746</a>	urn:oid:2.16.840.1.113883.11.2.0.9.18 (MoodCodeEvnInt)
templateId	1..1	SHALL		<a href="#">1098-8747</a>	
@root	1..1	SHALL		<a href="#">1098-10509</a>	2.16.840.1.113883.10.20.22.4.50
@extension	1..1	SHALL		<a href="#">1098-32514</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8748</a>	
statusCode	1..1	SHALL		<a href="#">1098-8749</a>	
@code	1..1	SHALL		<a href="#">1098-32363</a>	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	0..1	SHOULD	IVL_TS	<a href="#">1098-15498</a>	
quantity	0..1	SHOULD		<a href="#">1098-8751</a>	
participant	0..1	MAY		<a href="#">1098-8752</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8754</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRD
participantRole	1..1	SHALL		<a href="#">1098-15900</a>	<a href="#">Product Instance (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.37)</a>
entryRelationship	0..1	MAY		<a href="#">1098-30277</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30278</a>	SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-30279</a>	TRUE
act	1..1	SHALL		<a href="#">1098-31393</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8745).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:1098-8746).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8747) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.50" (CONF:1098-10509).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32514).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8748).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8749).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet ActStatus urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1098-32363).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-15498).
  - a. The effectiveTime, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:1098-16867).
7. **SHOULD** contain zero or one [0..1] **quantity** (CONF:1098-8751).
8. **MAY** contain zero or one [0..1] **participant** (CONF:1098-8752) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRD" Product (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8754).
  - b. **SHALL** contain exactly one [1..1] Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-15900).
9. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-30277) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CONF:1098-30278).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="TRUE" (CONF:1098-30279).
  - c. **SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31393).

**Figure 177: Non-Medicinal Supply Activity (V2) Example**

```
<supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.50" extension="2014-06-09" />
    <!-- Non-medicinal supply activity V2 template ***** -->
    <id root="39b5f1b4-a8e1-4ad7-8849-0deab10c97b1" />
    <statusCode code="completed" />
    <effectiveTime xsi:type="IVL_TS">
        <high value="20130703" />
    </effectiveTime>
    <quantity value="1" />
    <participant typeCode="PRD">
        <participantRole classCode="MANU">
            <templateId root="2.16.840.1.113883.10.20.22.4.37" />
            <!-- Product instance template -->
            <id root="24993f33-6222-41ce-add6-37a9d3da6acb" />
            <playingDevice>
                <code code="14106009" displayName="cardiac pacemaker, device (physical
object)" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">
                    <originalText>Cardiac Pacemaker</originalText>
                </code>
            </playingDevice>
            <scopingEntity>
                <id root="eb936010-7b17-11db-9fe1-0800200c9b65" />
                <desc>Good Health Durable Medical Equipment</desc>
            </scopingEntity>
        </participantRole>
    </participant>
</supply>
```

## 4.56 Number of Pressure Ulcers Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.76:2015-08-01  
(open)]

**Table 356: Number of Pressure Ulcers Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Longitudinal Care Wound Observation (V2) (optional)</a>	

This template represents the number of pressure ulcers observed at a particular stage.

**Table 357: Number of Pressure Ulcers Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.76:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14705</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-14706</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14707</a>	
@root	1..1	SHALL		<a href="#">1198-14708</a>	2.16.840.1.113883.10.20.22.4.76
@extension	1..1	SHALL		<a href="#">1198-32604</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-14709</a>	
code	1..1	SHALL		<a href="#">1198-14767</a>	
@code	1..1	SHALL		<a href="#">1198-14768</a>	2264892003
@codeSystem	1..1	SHALL		<a href="#">1198-32164</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
translation	1..1	SHALL		<a href="#">1198-32849</a>	
@code	1..1	SHALL		<a href="#">1198-32850</a>	75277-4
@codeSystem	1..1	SHALL		<a href="#">1198-32851</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-14714</a>	
@code	1..1	SHALL		<a href="#">1198-19108</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-14715</a>	
value	1..1	SHALL	INT	<a href="#">1198-14771</a>	
author	0..1	MAY		<a href="#">1198-14717</a>	
entryRelationship	1..1	SHALL		<a href="#">1198-14718</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14719</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-14720</a>	

@classCode	1..1	SHALL		<a href="#">1198-14721</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-14722</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
code	1..1	SHALL		<a href="#">1198-31930</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ASSERTION
value	1..1	SHALL	CD	<a href="#">1198-14725</a>	urn:oid:2.16.840.1.113883.11.2 0.9.35 (Pressure Ulcer Stage)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14705).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14706).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14707) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.76"** (CONF:1198-14708).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32604).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-14709).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14767).
  - a. This code **SHALL** contain exactly one [1..1] **@code="2264892003"** Number of pressure ulcers (CONF:1198-14768).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1198-32164).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32849) such that it
    - i. **SHALL** contain exactly one [1..1] **@code="75277-4"** Number of pressure ulcers (CONF:1198-32850).
    - ii. **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32851).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-14714).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19108).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-14715).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="INT" (CONF:1198-14771).
9. **MAY** contain zero or one [0..1] **author** (CONF:1198-14717).
10. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1198-14718) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14719).
  - b. **SHALL** contain exactly one [1..1] **observation** (CONF:1198-14720).

- i. This observation **SHALL** contain exactly one [1..1] @**classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14721).
- ii. This observation **SHALL** contain exactly one [1..1] @**moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14722).
- iii. This observation **SHALL** contain exactly one [1..1] **code**="ASSERTION" Assertion (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1198-31930).
- iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [\*\*Pressure Ulcer Stage\*\*](#) urn:oid:2.16.840.1.113883.11.20.9.35 **STATIC** (CONF:1198-14725).

**Table 358: Pressure Ulcer Stage**

<p>Value Set: Pressure Ulcer Stage urn:oid:2.16.840.1.113883.11.20.9.35        This value set enumerates the type of a pressure ulcer.        Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a></p>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
421076008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 1
420324007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 2
421927004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 3
420597008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 4
421594008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Nonstageable pressure

**Figure 178: Number of Pressure Ulcers Observation (V3) Example**

```
<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <!-- Number of Pressure Ulcers -->
        <templateId root="2.16.840.1.113883.10.20.22.4.76" extension="2015-08-01"/>
        <id root="08edb7c0-2111-43f2-a784-9a5fdfaa67f0" />
        <code code="2264892003" displayName="Number of pressure ulcers"
              codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT">
            <translation code="75277-4"
                         displayName="Number of pressure ulcers"
                         codeSystem="2.16.840.1.113883.6.1"
                         codeSystemName="LOINC"></translation>
        </code>
        <statusCode code="completed" />
        <value xsi:type="INT" value="3" />
        <entryRelationship typeCode="SUBJ">
            <observation classCode="OBS" moodCode="EVN">
                <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
                <value xsi:type="CD" code="421927004" codeSystem="2.16.840.1.113883.6.96"
displayName="Pressure ulcer stage 3" />
            </observation>
        </entryRelationship>
    </observation>
</entryRelationship>
```

## 4.57 Nutrition Assessment

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.138 (open) ]

**Table 359: Nutrition Assessment Contexts**

Contained By:	Contains:
<a href="#">Nutritional Status Observation</a> (required) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents the patient's nutrition abilities and habits including intake, diet requirements or diet followed.

**Table 360: Nutrition Assessment Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138)					
@classCode	1..1	SHALL		<a href="#">1098-32914</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-32915</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-32916</a>	
@root	1..1	SHALL		<a href="#">1098-32917</a>	2.16.840.1.113883.10.20.22.4.138
id	1..*	SHALL		<a href="#">1098-32918</a>	
code	1..1	SHALL		<a href="#">1098-32919</a>	
@code	1..1	SHALL		<a href="#">1098-32926</a>	75303-8
@codeSystem	1..1	SHALL		<a href="#">1098-32927</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-32920</a>	
@code	1..1	SHALL		<a href="#">1098-32921</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-32923</a>	
value	1..1	SHALL		<a href="#">1098-32922</a>	
author	0..*	SHOULD		<a href="#">1098-32924</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-32914).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-32915).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-32916) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.138" (CONF:1098-32917).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-32918).
5. **SHALL** contain exactly one [1..1] code (CONF:1098-32919).
  - a. This code **SHALL** contain exactly one [1..1] @code="75303-8" Nutrition assessment (CONF:1098-32926).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32927).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32920).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-32921).
- 7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-32923).
- 8. **SHALL** contain exactly one [1..1] **value** (CONF:1098-32922).
  - a. If xsi:type="CD", **SHOULD** contain a code from SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1098-32925).
- 9. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32924).

**Figure 179: Nutrition Assessment Example**

```

<entryRelationship typeCode="SUBJ">
  <observation classCode="OBS" moodCode="EVN">
    <!-- ** Nutrition Assessment** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.138" />
    <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
    <code code="75303-8"
          displayName="Nutrition assessment"
          codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" />
    <statusCode code="completed" />
    <effectiveTime value="20130512" />
    <value xsi:type="CD" code="437421000124105"
          displayName="Decreased sodium diet (regime/therapy)"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT" />
    <author typeCode="AUT">
      <templateId root="2.16.840.1.113883.10.20.22.4.119" />
      <time value="201300512" />
      ...
    </author>
  </observation>
</entryRelationship>

```

## 4.58 Nutrition Recommendation

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.130 (open) ]

**Table 361: Nutrition Recommendation Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional)

This template represents nutrition regimens (e.g., fluid restrictions, calorie minimum), interventions (e.g., NPO, nutritional supplements), and procedures (e.g., G-Tube by bolus, TPN by central line). It may also depict the need for nutrition education.

**Table 362: Nutrition Recommendation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130)					
@classCode	1..1	SHALL		<a href="#">1098-30385</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-30386</a>	urn:oid:2.16.840.1.113883.11.2 0.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30340</a>	
@root	1..1	SHALL		<a href="#">1098-30341</a>	2.16.840.1.113883.10.20.22.4.1 30
code	1..1	SHALL		<a href="#">1098-30342</a>	urn:oid:2.16.840.1.113883.1.11. 20.2.9 (Nutrition Recommendations)
statusCode	1..1	SHALL		<a href="#">1098-31697</a>	
@code	1..1	SHALL		<a href="#">1098-31698</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-31699</a>	
entryRelationship	0..*	MAY		<a href="#">1098-32382</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32928</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
encounter	1..1	SHALL		<a href="#">1098-32383</a>	<a href="#">Planned Encounter (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.40:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32384</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32929</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1098-32385</a>	<a href="#">Planned Medication Activity (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.42:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32386</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32930</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-32387</a>	<a href="#">Planned Observation (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a>

					<a href="#">20.22.4.44:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32388</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32931</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL		<a href="#">1098-32389</a>	<a href="#">Planned Procedure (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.41:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32390</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32932</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-32391</a>	<a href="#">Planned Supply (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.43:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32632</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32933</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1098-32633</a>	<a href="#">Planned Act (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.39:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30385).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2014-09-01 (CONF:1098-30386).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30340) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.130"** (CONF:1098-30341).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Nutrition Recommendations](#) urn:oid:2.16.840.1.113883.1.11.20.2.9 DYNAMIC (CONF:1098-30342).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31697).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31698).

The effectiveTime indicates the time when the activity is intended to take place.

6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-31699).
7. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32382).

- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32928).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Encounter (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09) (CONF:1098-32383).
8. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32384).
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32929).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Medication Activity (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09) (CONF:1098-32385).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32386).
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32930).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09) (CONF:1098-32387).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32388).
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32931).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Procedure (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09) (CONF:1098-32389).
11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32390).
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32932).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Supply (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09) (CONF:1098-32391).
12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32632).
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32933).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **Planned Act (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09) (CONF:1098-32633).

**Table 363: Nutrition Recommendations**

Value Set: Nutrition Recommendations urn:oid:2.16.840.1.113883.1.11.20.2.9 Types of nutritional regimes, therapies or interventions. Specific URL Pending Value Set Source: <a href="http://www.hl7.org">http://www.hl7.org</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
61310001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	nutrition education (procedure)
386373004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	nutrition therapy (regime/therapy)
418995006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	feeding regime (regime/therapy)
413315001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	nutrition / feeding management (regime/therapy)
182922004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	dietary regime (regime/therapy)
229912004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	enteral feeding (regime/therapy)
225372007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	total parenteral nutrition (regime/therapy)
448556005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	oral nutritional support

**Table 364: Planned moodCode (Act/Encounter/Procedure)**

Value Set: Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23 This value set is used to restrict the moodCode on an act, an encounter or a procedure to future moods Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
INT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Intent
ARQ	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Appointment Request
PRMS	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Request
APT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Appointment

**Figure 180: Nutrition Recommendation Example**

```
<entry>
  <act moodCode="INT" classCode="ACT">
    <!-- Nutrition Recommendation ACT-->
    <templateId root="2.16.840.1.113883.10.20.22.4.130" />
    <id root="9a6d1bac-17d3-4195-89a4-1121bc809a5c" />
    <code code="61310001"
      displayName="nutrition education"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED CT" />
    <statusCode code="active" />
    <effectiveTime value="20130512" />
  </act>
</entry>
```

## 4.59 Nutritional Status Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.124 (open) ]

**Table 365: Nutritional Status Observation Contexts**

Contained By:	Contains:
<a href="#">Nutrition Section</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Nutrition Assessment</a> (required)

This template describes the overall nutritional status of the patient including findings related to nutritional status.

**Table 366: Nutritional Status Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124)					
@classCode	1..1	SHALL		<a href="#">1098-29841</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-29842</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-29843</a>	
@root	1..1	SHALL		<a href="#">1098-29844</a>	2.16.840.1.113883.10.20.22.4.124
id	1..*	SHALL		<a href="#">1098-29845</a>	
code	1..1	SHALL		<a href="#">1098-29846</a>	
@code	1..1	SHALL		<a href="#">1098-29897</a>	75305-3
@codeSystem	1..1	SHALL		<a href="#">1098-29898</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-29852</a>	
@code	1..1	SHALL		<a href="#">1098-29853</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31867</a>	
value	1..1	SHALL		<a href="#">1098-29854</a>	urn:oid:2.16.840.1.113883.1.11.20.2.7 (Nutritional Status)
entryRelationship	1..*	SHALL		<a href="#">1098-30323</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30335</a>	SUBJ
observation	1..1	SHALL		<a href="#">1098-30336</a>	<a href="#">Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.138)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-29841).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-29842).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29843) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.124"** (CONF:1098-29844).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-29845).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29846).

- a. This code **SHALL** contain exactly one [1..1] @code="75305-3" Nutrition status (CONF:1098-29897).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-29898).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-29852).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-29853).
- 7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31867).
- 8. **SHALL** contain exactly one [1..1] **value**, which **SHOULD** be selected from ValueSet **Nutritional Status** urn:oid:2.16.840.1.113883.1.11.20.2.7 **DYNAMIC** (CONF:1098-29854).
- 9. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1098-30323) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CONF:1098-30335).
  - b. **SHALL** contain exactly one [1..1] **Nutrition Assessment** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138) (CONF:1098-30336).

**Table 367: Nutritional Status**

Value Set: Nutritional Status urn:oid:2.16.840.1.113883.1.11.20.2.7 A Value Set of SNOMED-CT codes representing nutrition problems. Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
371597004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	emaciated
284670008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	nutritionally compromised
248325000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	undernourished
248324001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	well nourished
75051000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Food intolerance
414285001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Food allergy
414915002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Obese
288939007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Swallowing difficulty
61578001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Altered GI function
95907004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	drug interaction with food
...			

**Figure 181: Nutritional Status Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
    <!-- Nutritional Status Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.124" />
    <id root="c12ecaaf-53f8-4593-8f79-359aeaa3948b" />
    <code code="75305-3"
        displayName="Nutrition status"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC">
        <originalText>Nutritional Status</originalText>
    </code>
    <statusCode code="completed" />
    <effectiveTime value="20130512" />
    <value xsi:type="CD" code="248324001"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED-CT"
        displayName="well nourished" />
    <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Nutrition Assessment -->
            <templateId root="2.16.840.1.113883.10.20.22.4.138" />
            ...
        </observation>

        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Nutrition Assessment -->
            <templateId root="2.16.840.1.113883.10.20.22.4.138" />
            ...
        </observation>
    </entryRelationship>
</observation>
```

## 4.60 Outcome Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.144 (open)]

**Table 368: Outcome Observation Contexts**

Contained By:	Contains:
<a href="#">Health Status Evaluations and Outcomes Section</a> (required)	<a href="#">Progress Toward Goal Observation</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional)

This template represents the outcome of care resulting from the interventions used to treat the patient. In the Care Planning workflow, the judgment about how well the person is progressing towards the goal is based on the observations made about the status of the patient with respect to interventions performed in the pursuit of achieving that goal.

Often thought of as an "actual outcome", the Outcome Observation may be related to goals, progression toward goals, and the associated interventions. For example, an observation

outcome of a blood oxygen saturation level of 95% is related to the goal of "Maintain Pulse Ox greater than 92", which in turn is related to the health concern of respiratory insufficiency and the problem of pneumonia. The template makes use of the Entry Reference (templateId:2.16.840.1.113883.10.20.22.4.122) to reference the interventions and goals defined elsewhere in the Care Plan CDA instance.

**Table 369: Outcome Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.144)					
@classCode	1..1	SHALL		<a href="#">1098-31219</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-31220</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31221</a>	
@root	1..1	SHALL		<a href="#">1098-31222</a>	2.16.840.1.113883.10.20.22.4.144
id	1..*	SHALL		<a href="#">1098-31223</a>	
code	1..1	SHALL		<a href="#">1098-32746</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
value	0..1	SHOULD		<a href="#">1098-32747</a>	
author	0..*	SHOULD		<a href="#">1098-31553</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
entryRelationship	0..*	SHOULD		<a href="#">1098-31224</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31225</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = GEVL
act	1..1	SHALL		<a href="#">1098-32465</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122)</a>
entryRelationship	0..1	SHOULD		<a href="#">1098-31427</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31428</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SPRT
@inversionInd	1..1	SHALL		<a href="#">1098-31429</a>	true
observation	1..1	SHALL		<a href="#">1098-31430</a>	<a href="#">Progress Toward Goal</a> <a href="#">Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.110)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31688</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31689</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
act	1..1	SHALL		<a href="#">1098-31690</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122)</a>

reference	0..*	MAY		<a href="#">1098-32763</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32764</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1098-32765</a>	<a href="#">External Document Reference</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31219).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31220).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31221) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.144"** (CONF:1098-31222).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31223).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32746).
6. **SHOULD** contain zero or one [0..1] **value** (CONF:1098-32747).
7. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31553).

The following entryRelationship represents the relationship between an Outcome Observation and a Goal Observation. Because the Goal Observation is already described in the CDA document instance's Goals section, rather than repeating the full content of the Goal Observation, the Entry Reference template can be used to reference this entry.

8. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31224) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="GEVL"** Evaluates goal (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31225).
  - b. **SHALL** contain exactly one [1..1] **Entry Reference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-32465).
  - c. This entryReference template **SHALL** reference an instance of a Goal Observation template (CONF:1098-32461).

The following entryRelationship represents the relationship between an Outcome Observation and a Progress Toward Goal Observation (Outcome Observation SUPPORTS Progress Toward Goal Observation). In the Care Planning workflow, the judgment about how well the person is progressing towards the goal is based on the observations made about the status of the patient with respect to interventions performed in the pursuit of achieving that goal.

9. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-31427) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SPRT"** Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31428).

- b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1098-31429).
- c. **SHALL** contain exactly one [1..1] Progress Toward Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.110) (CONF:1098-31430).

Where an Outcome Observation needs to reference an Intervention Act already described in the CDA document instance, rather than repeating the full content of the Intervention Act, the Entry Reference template may be used to reference this entry.

- 10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31688) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31689).
  - b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-31690).
  - c. This entryReference template **SHALL** reference an instance of a Intervention Act template (CONF:1098-32462).
- 11. **MAY** contain zero or more [0..\*] **reference** (CONF:1098-32763).
  - a. The reference, if present, **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32764).
  - b. The reference, if present, **SHALL** contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1098-32765).
- 12. **SHALL** contain at least one 1..\*] entryRelationships (CONF:1098-32782).

**Figure 182: Outcome Observation Example**

```
<!-- Outcome Observation -->
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.144" />
  <id root="0aaaa123-24e2-46b3-9d49-6b753c712dec" />
  <code code="44616-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Pulse oximetry panel" />
  <statusCode code="completed" />
  <effectiveTime value="20130806" />
  <value xsi:type="PQ" value="95" unit="%" />
  <author>
    ...
  </author>
  <!-- This Outcome Observation EVALUATES a Goal
  (Pulse ox reading of 95 evaluates the goal of Pulse ox reading > 92) -->
  <entryRelationship typeCode="GEVL">
    ...
  </entryRelationship>
  <!-- This Outcome Observation SUPPORTS the Progress Toward Goal Observation -->
  <entryRelationship typeCode="SPRT" inversionInd="true">
    ...
  </entryRelationship>
</observation>
```

## 4.61 Patient Referral Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.140 (open) ]

**Table 370: Patient Referral Act Contexts**

Contained By:	Contains:
<a href="#">Reason for Referral Section (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents the type of referral (e.g., for dental care, to a specialist, for aging problems) and represents whether the referral is for full care or shared care. It may contain a reference to another act in the document instance representing the clinical reason for the referral (e.g., problem, concern, procedure).

**Table 371: Patient Referral Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.140)					
@classCode	1..1	SHALL		<a href="#">1098-30884</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PCPR
@moodCode	1..1	SHALL		<a href="#">1098-30885</a>	urn:oid:2.16.840.1.113883.11.2 0.9.66 (Patient Referral Act moodCode)
templateId	1..1	SHALL		<a href="#">1098-30886</a>	
@root	1..1	SHALL		<a href="#">1098-30887</a>	2.16.840.1.113883.10.20.22.4.1 40
id	1..*	SHALL		<a href="#">1098-30888</a>	
code	1..1	SHALL		<a href="#">1098-30889</a>	urn:oid:2.16.840.1.113883.11.2 0.9.56 (Referral Types)
statusCode	1..1	SHALL		<a href="#">1098-30892</a>	
@code	1..1	SHALL		<a href="#">1098-31598</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL		<a href="#">1098-30893</a>	
priorityCode	0..1	SHOULD		<a href="#">1098-32623</a>	
author	0..*	SHOULD		<a href="#">1098-31612</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-32635</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32638</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFT
participantRole	1..1	SHALL		<a href="#">1098-32636</a>	
code	0..1	MAY		<a href="#">1098-32637</a>	urn:oid:2.16.840.1.114222.4.11. 1066 (Healthcare Provider Taxonomy (HIPAA))
entryRelationship	0..*	MAY		<a href="#">1098-31604</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31613</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1098-31605</a>	
@classCode	1..1	SHALL		<a href="#">1098-31606</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS

@moodCode	1..1	SHALL		<a href="#">1098-31607</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = RQO
code	1..1	SHALL		<a href="#">1098-31608</a>	
@code	1..1	SHALL		<a href="#">1098-31619</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-31620</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-31614</a>	
@code	1..1	SHALL		<a href="#">1098-31615</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
priorityCode	0..1	SHOULD		<a href="#">1098-32443</a>	urn:oid:2.16.840.1.113883.1.11. 16866 (Act Priority)
value	1..1	SHALL	CD	<a href="#">1098-31611</a>	urn:oid:2.16.840.1.113883.11.2 0.9.61 (Care Model)
entryRelationship	0..*	MAY		<a href="#">1098-31635</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31636</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32634</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.19:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] @classCode="PCPR" provision of care (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-30884).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Patient Referral Act moodCode](#) urn:oid:2.16.840.1.113883.11.20.9.66 **STATIC** 2014-09-01 (CONF:1098-30885).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30886) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.140" (CONF:1098-30887).

In the case of a Consultation Note where this referral is being fulfilled by this consultation, this id would be referenced in the inFullfilmentOf/order/id of the Consultation Note.

4. **SHALL** contain at least one [1..\*] id (CONF:1098-30888).
5. **SHALL** contain exactly one [1..1] code, which **SHALL** be selected from ValueSet [Referral Types](#) urn:oid:2.16.840.1.113883.11.20.9.56 **DYNAMIC** (CONF:1098-30889).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-30892).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31598).

The effectiveTime represents the time when the future referral is intended to take place.

7. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1098-30893).

8. **SHOULD** contain zero or one [0..1] **priorityCode** (CONF:1098-32623).
9. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31612).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-32635).
  - a. The participant, if present, **SHALL** contain exactly one [1..1] @**typeCode**="REFT" Referred to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32638).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-32636).
    - i. This participantRole **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet **Healthcare Provider Taxonomy (HIPAA)** urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1098-32637).

The following entryRelationship represents whether the referral is for full or shared care.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31604) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31613).
  - b. **SHALL** contain exactly one [1..1] **observation** (CONF:1098-31605).
    - i. This observation **SHALL** contain exactly one [1..1] @**classCode**="OBS" observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31606).
    - ii. This observation **SHALL** contain exactly one [1..1] @**moodCode**="RQO" request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31607).
    - iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1098-31608).
      1. This code **SHALL** contain exactly one [1..1] @**code**="ASSERTION" assertion (CONF:1098-31619).
      2. This code **SHALL** contain exactly one [1..1] @**codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31620).
    - iv. This observation **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31614).
      1. This statusCode **SHALL** contain exactly one [1..1] @**code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31615).
    - v. This observation **SHOULD** contain zero or one [0..1] **priorityCode**, which **SHOULD** be selected from ValueSet **Act Priority** urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-32443).
    - vi. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet **Care Model** urn:oid:2.16.840.1.113883.11.20.9.61 **STATIC** 2014-06-19 (CONF:1098-31611).

The following entryRelationship represents a reference to another act in the document instance representing the clinical reason for the referral (e.g., problem, concern, procedure).

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31635) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31636).
  - b. **SHALL** contain exactly one [1..1] **Indication (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32634).

**Table 372: Patient Referral Act moodCode**

Value Set: Patient Referral Act moodCode urn:oid:2.16.840.1.113883.11.20.9.66 Contains all the moodCode values it is possible to have for an Patient Referral Act. Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>			
Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Intent
RQO	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Request

**Table 373: Referral Types**

Value Set: Referral Types urn:oid:2.16.840.1.113883.11.20.9.56 A value set of SNOMED-CT codes descending from "3457005" patient referral (procedure). Value Set Source: <a href="http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=3457005">http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=3457005</a>			
Code	Code System	Code System OID	Print Name
44383000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Patient referral for consultation
391034007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Refer for falls assessment (procedure)
86395003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	patient referral for family planning (procedure)
306106002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	referral to intensive care service (procedure)
306140002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	referral to clinical oncology service (procedure)
396150002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Referral for substance abuse (procedure)
...			

**Table 374: Care Model**

Value Set: Care Model urn:oid:2.16.840.1.113883.11.20.9.61 A value set of SNOMED-CT codes representing care management styles (e.g., shared care, full care) descending from "170932006" "Chronic disease - care arrangement". Value Set Source: <a href="http://vts1.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=170932006">http://vts1.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=170932006</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
370985002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	care by local physician (finding)
170941001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	full care by GP (finding)
170935008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	full care by hospice (finding)
268528005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	full care by specialist (finding)
170939002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	full care: nurse practitioner (finding)
268529002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	shared care - consultant and GP (finding)
170936009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	shared care - hospice and GP (finding)
170937000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	shared care: district nurse and GP (finding)
170940000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	shared care: practice nurse and GP (finding)

**Table 375: Act Priority**

Value Set: Act Priority urn:oid:2.16.840.1.113883.1.11.16866			
Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
A	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	ASAP
CR	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Callback results
CS	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Callback for scheduling
CSP	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Callback placer for scheduling
CSR	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Contact recipient for scheduling
EL	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Elective
EM	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Emergency
P	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Preoperative
PRN	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	As needed
R	HL7ActPriority	urn:oid:2.16.840.1.11388 3.5.7	Routine
...			

**Figure 183: Patient Referral Act Example**

```
<entry>
  <act classCode="ACT" moodCode="INT">
    <!--Patient Referral Act-->
    <templateId root="2.16.840.1.113883.10.20.22.4.140" />
    <id root="70bdd7db-e02d-4eff-9829-35e3b7d9e154" />
    <code code="44383000" displayName="Patient referral for consultation"
codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96" />
    <statusCode code="active" />
    <effectiveTime value="20130311" />
    <priorityCode code="A"
      codeSystem="2.16.840.1.113883.5.7"
      codeSystemName="ActPriority"
      displayName="ASAP"/>
  <author>
    <time value="200130311" />
    <assignedAuthor>
      <id extension="KP00017" root="2.16.840.1.113883.19.5" />
      <addr>
        <streetAddressLine>1003 Health Care
          Drive</streetAddressLine>
        <city>Ann Arbor</city>
        <state>MI</state>
        <postalCode>02368</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: (555) 555-1003" />
      <assignedPerson>
        <name>
          <given>Assigned</given>
          <family>Amanda</family>
        </name>
      </assignedPerson>
    </assignedAuthor>
  </author>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
      <statusCode code="completed" />
      <value xsi:type="CD" code="268528005" displayName="full care by specialist"
codeSystem="2.16.840.1.113883.6.96" />
    </observation>
  </entryRelationship>
  </act>
</entry>
```

## 4.62 Planned Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09 (open) ]

**Table 376: Planned Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Assessment and Plan Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents planned acts that are not classified as an observation or a procedure according to the HL7 RIM. Examples of these acts are a dressing change, the teaching or feeding of a patient or the providing of comfort measures.

The priority of the activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the activity is intended to take place.

**Table 377: Planned Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8538</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-8539</a>	urn:oid:2.16.840.1.113883.11.2 0.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30430</a>	
@root	1..1	SHALL		<a href="#">1098-30431</a>	2.16.840.1.113883.10.20.22.4.39
@extension	1..1	SHALL		<a href="#">1098-32552</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8546</a>	
code	1..1	SHALL		<a href="#">1098-31687</a>	
statusCode	1..1	SHALL		<a href="#">1098-30432</a>	
@code	1..1	SHALL		<a href="#">1098-32019</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30433</a>	
performer	0..*	MAY		<a href="#">1098-30435</a>	
author	0..1	SHOULD		<a href="#">1098-32020</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31067</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31068</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31069</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32021</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32022</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32023</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32024</a>	

@typeCode	1..1	SHALL		<a href="#">1098-32025</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32026</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8538).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2014-09-01 (CONF:1098-8539).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30430) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.39" (CONF:1098-30431).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32552).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-8546).
5. **SHALL** contain exactly one [1..1] code (CONF:1098-31687).
  - a. This code in a Planned Act **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) **OR** SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1098-32030).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-30432).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32019).

The effectiveTime in a planned act represents the time that the act should occur.

7. **SHOULD** contain zero or one [0..1] effectiveTime (CONF:1098-30433).

The clinician who is expected to carry out the act could be identified using act/performer.

8. **MAY** contain zero or more [0..\*] performer (CONF:1098-30435).

The author in a planned act represents the clinician who is requesting or planning the act.

9. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32020).

The following entryRelationship represents the priority that a patient or a provider places on the activity.

10. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-31067) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31068).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31069).

The following entryRelationship represents the indication for the act.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32021) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32022).
  - SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32023).

The following entryRelationship captures any instructions associated with the planned act.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32024) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32025).
  - SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32026).

**Figure 184: Planned Act (V2) Example**

```
<act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09" />
    <id root="7658963e-54da-496f-bf18-dea1ddaa3b0" />
    <code code="423171007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Elevate head of bed" />
    <statusCode code="active" />
    <effectiveTime value="20130902" />
    <author typeCode="AUT">
        <!-- Author Participation -->
    </author>
    <entryRelationship typeCode="RSON">
        <!-- Patient Priority Preference -->
    ...
    </entryRelationship>
    <entryRelationship typeCode="RSON">
        <!-- Provider Priority Preference -->
    ...
    </entryRelationship>
    <entryRelationship typeCode="RSON">
        <!-- Indication (V2) -->
    ...
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
        <!-- Instruction (V2) -->
    ...
    </entryRelationship>
    <entryRelationship typeCode="COMP">
        <!-- Planned Coverage -->
    ...
    </entryRelationship>
</act>
```

## 4.63 Planned Coverage

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open) ]

**Table 378: Planned Coverage Contexts**

Contained By:	Contains:
<a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents the insurance coverage intended to cover an act or procedure.

**Table 379: Planned Coverage Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)					
@classCode	1..1	SHALL		<a href="#">1098-31945</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31946</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-31947</a>	
@root	1..1	SHALL		<a href="#">1098-31948</a>	2.16.840.1.113883.10.20.22.4.1 29
id	1..*	SHALL		<a href="#">1098-31950</a>	
code	1..1	SHALL		<a href="#">1098-31951</a>	
@code	1..1	SHALL		<a href="#">1098-31952</a>	48768-6
@codeSystem	1..1	SHALL		<a href="#">1098-31953</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-31954</a>	
@code	1..1	SHALL		<a href="#">1098-31955</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active
author	0..*	MAY		<a href="#">1098-32178</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a>
entryRelationship	1..1	SHALL		<a href="#">1098-31967</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31968</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-31969</a>	
@classCode	1..1	SHALL		<a href="#">1098-31970</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31971</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = INT
id	1..*	SHALL		<a href="#">1098-31972</a>	
code	1..1	SHALL		<a href="#">1098-31973</a>	urn:oid:2.16.840.1.114222.4.11. 3591 (Payer)
statusCode	1..1	SHALL		<a href="#">1098-31974</a>	
@code	1..1	SHALL		<a href="#">1098-31975</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active

1. **SHALL** contain exactly one [1..1] `@classCode="ACT"` act (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31945).
2. **SHALL** contain exactly one [1..1] `@moodCode="INT"` Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31946).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:1098-31947) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.129"` (CONF:1098-31948).
4. **SHALL** contain at least one [1..\*] `id` (CONF:1098-31950).
5. **SHALL** contain exactly one [1..1] `code` (CONF:1098-31951).
  - a. This code **SHALL** contain exactly one [1..1] `@code="48768-6"` Payment Sources (CONF:1098-31952).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31953).
6. **SHALL** contain exactly one [1..1] `statusCode` (CONF:1098-31954).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="active"` Active (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31955).
7. **MAY** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32178).
8. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:1098-31967) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31968).
  - b. **SHALL** contain exactly one [1..1] `act` (CONF:1098-31969).
    - i. This act **SHALL** contain exactly one [1..1] `@classCode="ACT"` ACT (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31970).
    - ii. This act **SHALL** contain exactly one [1..1] `@moodCode="INT"` intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31971).

These act/identifiers are unique identifiers for the policy or program providing the coverage.

- iii. This act **SHALL** contain at least one [1..\*] `id` (CONF:1098-31972).
- iv. This act **SHALL** contain exactly one [1..1] `code`, which **SHALL** be selected from ValueSet **Payer** urn:oid:2.16.840.1.114222.4.11.3591 **DYNAMIC** (CONF:1098-31973).
- v. This act **SHALL** contain exactly one [1..1] `statusCode` (CONF:1098-31974).
  1. This statusCode **SHALL** contain exactly one [1..1] `@code="active"` Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31975).

**Table 380: Payer**

Value Set: Payer urn:oid:2.16.840.1.114222.4.11.3591 A value set of Public Health Data Standards Consortium Source of Payment Typology Version 3.0 Codes Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
1	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	MEDICARE
11	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare (Managed Care)
111	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare HMO
112	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare PPO
113	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare POS
119	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare Managed Care Other
12	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare (Non-managed Care)
121	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare FFS
122	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare Drug Benefit
123	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.11388 3.3.221.5	Medicare Medical Savings Account (MSA)
...			

**Figure 185: Planned Coverage Example**

```

<act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.129" />
    <id root="03f5e10b-7e79-4610-9626-d2984ff10cc1" />
    <code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Payment Sources" />
    <statusCode code="active" />
    <entryRelationship typeCode="COMP">
        <act classCode="ACT" moodCode="INT">
            <!-- These act/identifiers are unique identifiers
            for the policy or program providing the coverage. -->
            <id root="4c9a3be1-5f09-46dd-88e7-14c8ec612e4c" />
            <code code="111" displayName="Medicare HMO"
                codeSystemName="Source of Payment Typology (PHDSC)"
                codeSystem="2.16.840.1.113883.3.221.5" />
            <statusCode code="active" />
        </act>
    </entryRelationship>
</act>

```

## 4.64 Planned Encounter (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09  
(open) ]

**Table 381: Planned Encounter (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents a planned or ordered encounter. The type of encounter (e.g., comprehensive outpatient visit) is represented. Clinicians participating in the encounter and the location of the planned encounter may be captured. The priority that the patient and providers place on the encounter may be represented.

**Table 382: Planned Encounter (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8564</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8565</a>	urn:oid:2.16.840.1.113883.11.2 0.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30437</a>	
@root	1..1	SHALL		<a href="#">1098-30438</a>	2.16.840.1.113883.10.20.22.4.40
@extension	1..1	SHALL		<a href="#">1098-32553</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8567</a>	
code	0..1	SHOULD		<a href="#">1098-31032</a>	urn:oid:2.16.840.1.113883.11.2 0.9.52 (Encounter Planned)
statusCode	1..1	SHALL		<a href="#">1098-30439</a>	
@code	1..1	SHALL		<a href="#">1098-31880</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30440</a>	
performer	0..*	MAY		<a href="#">1098-30442</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-31874</a>	
author	0..*	SHOULD		<a href="#">1098-32045</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-30443</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31875</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-31876</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.32)</a>
entryRelationship	0..1	MAY		<a href="#">1098-31033</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31034</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31035</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>

entryRelationship	0..*	MAY		<a href="#">1098-31877</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31878</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-31879</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.19:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8564).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2014-09-01 (CONF:1098-8565).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30437) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.40" (CONF:1098-30438).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32553).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-8567).

Records the type of encounter ordered or recommended.

5. **SHOULD** contain zero or one [0..1] code, which **SHOULD** be selected from ValueSet [Encounter Planned](#) urn:oid:2.16.840.1.113883.11.20.9.52 DYNAMIC (CONF:1098-31032).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-30439).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31880).
7. **SHOULD** contain zero or one [0..1] effectiveTime (CONF:1098-30440).

Performers represent clinicians who are responsible for assessing and treating the patient.

8. **MAY** contain zero or more [0..\*] performer (CONF:1098-30442) such that it
  - a. **SHALL** contain exactly one [1..1] assignedEntity (CONF:1098-31874).

The author in a planned encounter represents the clinician who is requesting or planning the encounter.

9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32045).

This location participation captures where the planned or ordered encounter may take place.

10. **MAY** contain zero or more [0..\*] participant (CONF:1098-30443) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1098-31875).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-31876).

The following entryRelationship represents the priority that a patient or a provider places on the encounter.

11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-31033) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31034).
  - SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31035).

The following entryRelationship captures the reason for the planned or ordered encounter

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31877) such that it
- SHALL** contain exactly one [1..1] @**typeCode**="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31878).
  - SHALL** contain exactly one [1..1] **Indication (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31879).

**Table 383: Encounter Planned**

Value Set: Encounter Planned urn:oid:2.16.840.1.113883.11.20.9.52 (Clinical Focus: Activities that represent planned patient encounters with clinicians),(Data Element Scope: encounter),(Inclusion Criteria: SNOMED-CT codes descending from "308335008" patient encounter procedure (procedure).),(Exclusion Criteria: unknown)  This value set was imported on 9/8/2017 with a version of 20170418. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion</a>			
Code	Code System	Code System OID	Print Name
108219001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Physician visit with evaluation AND/OR management service (procedure)
108220007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Evaluation AND/OR management - new patient (procedure)
108221006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Evaluation AND/OR management - established patient (procedure)
11429006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Consultation (procedure)
11797002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Telephone call by physician to patient or for consultation (procedure)
12566000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Consultation in computer dosimetry and isodose chart, teletherapy (procedure)
12586001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Physician direction of emergency medical systems (procedure)
12843005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Subsequent hospital visit by physician (procedure)
14736009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	History and physical examination with evaluation and management of patient (procedure)
15301000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Consultation in chemotherapy (procedure)
...			

**Figure 186: Planned Encounter (V2) Example**

```
<entry>
  <encounter moodCode="INT" classCode="ENC">
    <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09" />
    <!-- Planned Encounter V2 template -->
    <id root="9a6d1bac-17d3-4195-89a4-1121bc809b4d" />
    <code code="185349003" displayName="encounter for check-up (procedure)" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"> </code>
    <statusCode code="active" />
    <effectiveTime value="20130615" />
    <performer>
      <assignedEntity>
        ...
      </assignedEntity>
    </performer>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.142" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        ...
      </observation>
    </entryRelationship>
  </encounter>
</entry>
```

## 4.65 Planned Immunization Activity

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.120  
(open) ]

**Table 384: Planned Immunization Activity Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

This template represents planned immunizations. Planned Immunization Activity is very similar to Planned Medication Activity with some key differences, for example, the drug code system is constrained to CVX codes.

The priority of the immunization activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the immunization activity is intended to take place and authorTime indicates when the documentation of the plan occurred.

**Table 385: Planned Immunization Activity Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120)					
@classCode	1..1	SHALL		<a href="#">1098-32091</a>	SBADM
@moodCode	1..1	SHALL		<a href="#">1098-32097</a>	urn:oid:2.16.840.1.113883.11.2 0.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-32098</a>	
@root	1..1	SHALL		<a href="#">1098-32099</a>	2.16.840.1.113883.10.20.22.4.1 20
id	1..*	SHALL		<a href="#">1098-32100</a>	
statusCode	1..1	SHALL		<a href="#">1098-32101</a>	
@code	1..1	SHALL		<a href="#">1098-32102</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL		<a href="#">1098-32103</a>	
repeatNumber	0..1	MAY		<a href="#">1098-32126</a>	
routeCode	0..1	MAY		<a href="#">1098-32127</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.7 (Medication Route FDA)
translation	0..*	SHOULD		<a href="#">1098-32951</a>	urn:oid:2.16.840.1.113762.1.4.1 099.12 (Medication Route)
approachSiteCode	0..*	MAY		<a href="#">1098-32128</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
doseQuantity	0..1	MAY		<a href="#">1098-32129</a>	
@unit	0..1	SHOULD		<a href="#">1098-32130</a>	urn:oid:2.16.840.1.113883.1.11. 12839 (UnitsOfMeasureCaseSensitive)
consumable	1..1	SHALL		<a href="#">1098-32131</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32132</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.54:2014-06-09</a>
performer	0..*	MAY		<a href="#">1098-32104</a>	
author	0..*	MAY		<a href="#">1098-32105</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a>
entryRelationship	0..*	MAY		<a href="#">1098-</a>	

				<a href="#">32108</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32109</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-32110</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32114</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32115</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSQN
observation	1..1	SHALL		<a href="#">1098-32116</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32117</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32118</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32119</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.20:2014-06-09)</a>
precondition	0..*	MAY		<a href="#">1098-32123</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32124</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1098-32125</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CONF:1098-32091).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#)  
urn:oid:2.16.840.1.113883.11.20.9.24 STATIC 2014-09-01 (CONF:1098-32097).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-32098) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.120" (CONF:1098-32099).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-32100).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-32101).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32102).

The effectiveTime in a planned immunization activity represents the time that the immunization activity should occur.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-32103).

In a Planned Immunization Activity, repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times.

7. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-32126).
8. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [Medication Route FDA](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-32127).
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32951).
9. **MAY** contain zero or more [0..\*] **approachSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32128).
10. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:1098-32129).
  - a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32130).
11. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-32131).
  - a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32132).

The clinician who is expected to perform the planned immunization activity could be identified using substanceAdministration/performer.

12. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-32104).

The author in a planned immunization activity represents the clinician who is requesting or planning the immunization activity.

13. **MAY** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32105).

The following entryRelationship represents the priority that a patient or a provider places on the immunization activity.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32108) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32109).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-32110).

The following entryRelationship represents the indication for the immunization activity.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32114) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32115).
- b. **SHALL** contain exactly one [1..1] Indication (v2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32116).

The following entryRelationship captures any instructions associated with the planned immunization activity.

16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32117) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32118).
  - b. **SHALL** contain exactly one [1..1] Instruction (v2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32119).
17. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-32123) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRCN" Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32124).
  - b. **SHALL** contain exactly one [1..1] Precondition for Substance Administration (v2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32125).

**Table 386: Planned moodCode (SubstanceAdministration/Supply)**

Value Set: Planned moodCode (SubstanceAdministration/Supply) urn:oid:2.16.840.1.113883.11.20.9.24 This value set is used to restrict the moodCode on a substance administration or a supply to future moods. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
--	--	--	--

Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Intent
PRMS	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Request

**Figure 187: Planned Immunization Activity**

```
<substanceAdministration classCode="SBADM" moodCode="INT">
    <!-- Planned Immunization Activity -->
    <templateId root="2.16.840.1.113883.10.20.22.4.120" />
    <id root="81505d5e-2305-42b3-9273-f579d622000d" />
    <statusCode code="active" />
    <effectiveTime xsi:type="IVL_TS" value="20131115" />
    <repeatNumber value="1" />
    <routeCode code="IM" codeSystem="2.16.840.1.113883.5.112"
codeSystemName="RouteOfAdministration" displayName="Intramuscular injection" />
    <consumable>
        <!-- Immunization Medication Information (V2) -->
    </consumable>
    <performer>
        ...
    </performer>
    <author>
        <!-- Author Participation -->
    </author>
    <entryRelationship typeCode="REFR">
        <!-- Patient Priority Preference -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="REFR">
        <!-- Provider Priority Preference -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="RSON">
        <!-- Indication (V2) -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
        <!-- Instruction (V2) -->
        ...
    </entryRelationship>
    <precondition typeCode="PRCN">
        <!-- Precondition for Substance Administration (V2) -->
        ...
    </precondition>
</substanceAdministration>
```

## 4.66 Planned Intervention Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01  
(open)]

**Table 387: Planned Intervention Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Intervention Act (V2)</a> (optional) <a href="#">Interventions Section (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Handoff Communication Participants</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">Entry Reference</a> (required) <a href="#">External Document Reference</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)

This template represents a Planned Intervention Act. It is a wrapper for planned intervention-type activities considered to be parts of the same intervention. For example, an activity such as "elevate head of bed" combined with "provide humidified O<sub>2</sub> per nasal cannula" may be the interventions planned for a health concern of "respiratory insufficiency" in order to attempt to achieve a goal of "pulse oximetry greater than 92%". These intervention activities may be newly described or derived from a variety of sources within an EHR.

Interventions are actions taken to increase the likelihood of achieving the patient's or providers' goals. An Intervention Act should contain a reference to a Goal Observation representing the reason for the intervention.

Planned Intervention Acts can be related to each other or to Intervention Acts. (E.g., a Planned Intervention Act with moodCode of INT could be related to a series of Intervention Acts with moodCode of EVN, each having an effectiveTime containing the time of the intervention.)

All interventions referenced in a Planned Intervention Act must have moodCodes indicating that they are planned (have not yet occurred).

**Table 388: Planned Intervention Act (V2) Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-32678</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-32679</a>	urn:oid:2.16.840.1.113883.11.2 0.9.54 (Planned Intervention moodCode)
templateId	1..1	SHALL		<a href="#">1198-32653</a>	
@root	1..1	SHALL		<a href="#">1198-32680</a>	2.16.840.1.113883.10.20.22.4.1 46
@extension	1..1	SHALL		<a href="#">1198-32912</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-32681</a>	
code	1..1	SHALL		<a href="#">1198-32654</a>	
@code	1..1	SHALL		<a href="#">1198-32682</a>	362956003
@codeSystem	1..1	SHALL		<a href="#">1198-32683</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1198-32655</a>	
@code	1..1	SHALL		<a href="#">1198-32684</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1198-32723</a>	
author	0..*	SHOULD		<a href="#">1198-32719</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32652</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32685</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32677</a>	<a href="#">Advance Directive Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32656</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32686</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Immunization Activity (V3)</a>

				<a href="#">32687</a>	<a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.52:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198- 32657</a>	
@typeCode	1..1	SHALL		<a href="#">1198- 32688</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1198- 32689</a>	<a href="#">Medication Activity (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.16:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198- 32658</a>	
@typeCode	1..1	SHALL		<a href="#">1198- 32690</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198- 32691</a>	<a href="#">Procedure Activity Act (V2)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.12:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198- 32659</a>	
@typeCode	1..1	SHALL		<a href="#">1198- 32692</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198- 32693</a>	<a href="#">Intervention Act (V2)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.131:2015-08-01</a> )
entryRelationship	0..*	MAY		<a href="#">1198- 32660</a>	
@typeCode	1..1	SHALL		<a href="#">1198- 32694</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198- 32695</a>	<a href="#">Procedure Activity Observation (V2)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.13:2014-06-09</a> )
entryRelationship	0..*	MAY		<a href="#">1198- 32661</a>	
@typeCode	1..1	SHALL		<a href="#">1198- 32696</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL		<a href="#">1198- 32697</a>	<a href="#">Procedure Activity Procedure (V2)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.14:2014-06-09</a> )
entryRelationship	0..*	MAY		<a href="#">1198- 32662</a>	
@typeCode	1..1	SHALL		<a href="#">1198-</a>	urn:oid:2.16.840.1.113883.5.10

				<a href="#">32698</a>	02 (HL7ActRelationshipType) = REFR
encounter	1..1	SHALL		<a href="#">1198-32699</a>	<a href="#">Encounter Activity (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.49:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-32663</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32957</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32701</a>	<a href="#">Instruction (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.20:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32664</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32702</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-32703</a>	<a href="#">Non-Medicinal Supply Activity</a> <a href="#">(V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.50:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32665</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32704</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32705</a>	<a href="#">Planned Act (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.39:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32666</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32706</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
encounter	1..1	SHALL		<a href="#">1198-32707</a>	<a href="#">Planned Encounter (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.40:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32667</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32708</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32709</a>	<a href="#">Planned Observation (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.44:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-</a>	

				<a href="#">32668</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32710</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL		<a href="#">1198-32711</a>	<a href="#">Planned Procedure (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32669</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32712</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1198-32713</a>	<a href="#">Planned Medication Activity (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32670</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32714</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-32715</a>	<a href="#">Planned Supply (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1198-32671</a>	
procedure	1..1	SHALL		<a href="#">1198-32716</a>	<a href="#">Nutrition Recommendation</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.130</a>
entryRelationship	0..*	MAY		<a href="#">1198-32672</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32717</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32718</a>	<a href="#">Entry Reference</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.122</a>
entryRelationship	1..*	SHALL		<a href="#">1198-32673</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32720</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSQN
act	1..1	SHALL		<a href="#">1198-32721</a>	<a href="#">Entry Reference</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.122</a>
entryRelationship	0..*	MAY		<a href="#">1198-32675</a>	

@typeCode	1..1	SHALL		<a href="#">1198-32726</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32727</a>	<a href="#">Handoff Communication Participants</a> (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.141)
entryRelationship	0..*	MAY		<a href="#">1198-32676</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32728</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">1198-32729</a>	<a href="#">Planned Immunization Activity</a> (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.120)
reference	0..*	MAY		<a href="#">1198-32766</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32767</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1198-32768</a>	<a href="#">External Document Reference</a> (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.115:2014-06-09)

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32678).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned Intervention moodCode](#) urn:oid:2.16.840.1.113883.11.20.9.54 **DYNAMIC** (CONF:1198-32679).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-32653) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.146" (CONF:1198-32680).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32912).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-32681).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-32654).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="362956003" procedure / intervention (navigational concept) (CONF:1198-32682).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-32683).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-32655).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-32684).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1198-32723).

8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-32719).
9. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32652) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32685).
  - b. **SHALL** contain exactly one [1..1] [Advance Directive Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01) (CONF:1198-32677).
10. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32656) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32686).
  - b. **SHALL** contain exactly one [1..1] [Immunization Activity \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01) (CONF:1198-32687).
11. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32657) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32688).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1198-32689).
12. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32658) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32690).
  - b. **SHALL** contain exactly one [1..1] [Procedure Activity Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09) (CONF:1198-32691).

The following entryRelationship represents the relationship between two Intervention Acts (Intervention RELATES TO Intervention).

13. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32659) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32692).
  - b. **SHALL** contain exactly one [1..1] [Intervention Act \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.131:2015-08-01) (CONF:1198-32693).
14. **MAY** contain zero or more [0..\*] [entryRelationship](#) (CONF:1198-32660) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32694).

- b. **SHALL** contain exactly one [1..1] [Procedure Activity Observation \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09)  
(CONF:1198-32695).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32661) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32696).
  - SHALL** contain exactly one [1..1] [Procedure Activity Procedure \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)  
(CONF:1198-32697).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32662) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32698).
  - SHALL** contain exactly one [1..1] [Encounter Activity \(V3\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:1198-32699).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32663) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32957).
  - SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1198-32701).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32664) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32702).
  - SHALL** contain exactly one [1..1] [Non-Medicinal Supply Activity \(V2\)](#)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.50:2014-06-09)  
(CONF:1198-32703).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32665) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32704).
  - SHALL** contain exactly one [1..1] [Planned Act \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09) (CONF:1198-32705).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32666) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32706).
  - SHALL** contain exactly one [1..1] [Planned Encounter \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09) (CONF:1198-32707).

21. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32667) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32708).
  - SHALL** contain exactly one [1..1] Planned Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09) (CONF:1198-32709).
22. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32668) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32710).
  - SHALL** contain exactly one [1..1] Planned Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09) (CONF:1198-32711).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32669) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32712).
  - SHALL** contain exactly one [1..1] Planned Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09) (CONF:1198-32713).
24. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32670) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32714).
  - SHALL** contain exactly one [1..1] Planned Supply (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09) (CONF:1198-32715).
25. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32671) such that it
- SHALL** contain exactly one [1..1] Nutrition Recommendation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.130) (CONF:1198-32716).

Where an Intervention needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

26. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32672) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32717).
  - SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32718).

An Intervention Act SHALL reference a Goal Observation. Because the Goal Observation is already described in the CDA document instance's Goals section, rather than repeating the full content of the Goal Observation, the Entry Reference template can be used to reference this entry. The following entryRelationship represents an Entry Reference to Goal Observation.

27. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-32673) such that it
- SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32720).
  - SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32721).
  - This entryReference template **SHALL** reference an instance of a Goal Observation template (CONF:1198-32722).
28. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32675) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32726).
  - SHALL** contain exactly one [1..1] Handoff Communication Participants (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.141) (CONF:1198-32727).
29. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32676) such that it
- SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32728).
  - SHALL** contain exactly one [1..1] Planned Immunization Activity (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120) (CONF:1198-32729).
30. **MAY** contain zero or more [0..\*] **reference** (CONF:1198-32766).
- The reference, if present, **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32767).
  - The reference, if present, **SHALL** contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1198-32768).

**Table 389: Planned Intervention moodCode**

Value Set: Planned Intervention moodCode urn:oid:2.16.840.1.113883.11.20.9.54 Contains all the moodCode values it is possible to have for a Planned Intervention. Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>			
Code	Code System	Code System OID	Print Name
APT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Appointment
ARQ	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Appointment Request
INT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Intent
PRMS	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Request

## 4.67 Planned Medication Activity (V2)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09 (open) ]

**Table 390: Planned Medication Activity (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (required) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

This template represents planned medication activities. The priority of the medication activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the medication activity is intended to take place. The authorTime indicates when the documentation of the plan occurred.

**Table 391: Planned Medication Activity (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8572</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1098-8573</a>	urn:oid:2.16.840.1.113883.11.2 0.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-30465</a>	
@root	1..1	SHALL		<a href="#">1098-30466</a>	2.16.840.1.113883.10.20.22.4.4 2
@extension	1..1	SHALL		<a href="#">1098-32557</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8575</a>	
statusCode	1..1	SHALL		<a href="#">1098-32087</a>	
@code	1..1	SHALL		<a href="#">1098-32088</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">1098-30468</a>	
@value	0..1	SHOULD		<a href="#">1098-32944</a>	
low	0..1	SHOULD		<a href="#">1098-32948</a>	
high	0..1	MAY		<a href="#">1098-32949</a>	
effectiveTime	1..1	SHOULD		<a href="#">1098-32943</a>	
@operator	1..1	SHALL		<a href="#">1098-32945</a>	A
repeatNumber	0..1	MAY		<a href="#">1098-32066</a>	
routeCode	0..1	MAY		<a href="#">1098-32067</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.7 (Medication Route FDA)
translation	0..*	SHOULD		<a href="#">1098-32952</a>	urn:oid:2.16.840.1.113762.1.4.1 099.12 (Medication Route)
approachSiteCode	0..*	MAY		<a href="#">1098-32078</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
doseQuantity	0..1	MAY		<a href="#">1098-32068</a>	
@unit	0..1	SHOULD		<a href="#">1098-32133</a>	urn:oid:2.16.840.1.113883.1.11. 12839

					(UnitsOfMeasureCaseSensitive)
rateQuantity	0..1	MAY		<a href="#">1098-32079</a>	
@unit	0..1	SHOULD		<a href="#">1098-32134</a>	urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive)
maxDoseQuantity	0..1	MAY		<a href="#">1098-32080</a>	
administrationUnitCode	0..1	MAY		<a href="#">1098-32081</a>	urn:oid:2.16.840.1.113762.1.4.1.021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1098-32082</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32083</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
performer	0..*	MAY		<a href="#">1098-30470</a>	
author	0..1	SHOULD		<a href="#">1098-32046</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31104</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31105</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31106</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32069</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32070</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32071</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32072</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32073</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32074</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
precondition	0..*	MAY		<a href="#">1098-32084</a>	
@typeCode	1..1	SHALL		<a href="#">1098-</a>	urn:oid:2.16.840.1.113883.5.10

				<a href="#">32085</a>	02 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1098-32086</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8572).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#) urn:oid:2.16.840.1.113883.11.20.9.24 **STATIC** 2011-09-30 (CONF:1098-8573).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30465) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.42" (CONF:1098-30466).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32557).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8575).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32087).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32088).

The effectiveTime in a planned medication activity represents the time that the medication activity should occur.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-30468) such that it  
 Note: This effectiveTime represents either the medication duration (i.e., the time the medication should be started and stopped) or the timestamp when the single-administration should occur.
  - a. **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-32944).  
 Note: indicates a single-administration timestamp
  - b. **SHOULD** contain zero or one [0..1] **low** (CONF:1098-32948).  
 Note: indicates when medication started
  - c. **MAY** contain zero or one [0..1] **high** (CONF:1098-32949).  
 Note: indicates when medication stopped
  - d. This effectiveTime **SHALL** contain either a low or a @value but not both (CONF:1098-32947).

The effectiveTime in a planned medication activity represents the time that the medication activity should occur.

7. **SHOULD** contain exactly one [1..1] **effectiveTime** (CONF:1098-32943) such that it
  - a. **SHALL** contain exactly one [1..1] **@operator**="A" (CONF:1098-32945).
  - b. **SHALL** contain exactly one [1..1] **@xsi:type**="PIVL\_TS" or "EIVL\_TS" (CONF:1098-32946).

In a Planned Medication Activity, repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times.

8. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-32066).
9. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [Medication Route FDA](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-32067).
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32952).
10. **MAY** contain zero or more [0..\*] **approachSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32078).
11. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:1098-32068).
  - a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32133).
12. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:1098-32079).
  - a. The rateQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32134).
13. **MAY** contain zero or one [0..1] **maxDoseQuantity** (CONF:1098-32080).
14. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1098-32081).
15. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-32082).
  - a. This consumable **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32083).

The clinician who is expected to perform the medication activity could be identified using substanceAdministration/performer.

16. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30470).

The author in a planned medication activity represents the clinician who is requesting or planning the medication activity.

17. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32046).

The following entryRelationship represents the priority that a patient or a provider places on the planned medication activity.

18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31104) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31105).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31106).

The following entryRelationship represents the indication for the planned medication activity.

19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32069) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32070).
- b. **SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32071).

The following entryRelationship captures any instructions associated with the planned medication activity.

20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32072) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32073).
  - b. **SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32074).
21. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-32084).
  - a. The precondition, if present, **SHALL** contain exactly one [1..1] @typeCode="PRCN" Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32085).
  - b. The precondition, if present, **SHALL** contain exactly one [1..1] Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32086).

**Figure 188: Planned Medication Activity (V2) Example**

```

<substanceAdministration moodCode="INT" classCode="SBADM">
  <templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09" />
  <!-- Planned Medication Activity (V2)-->
  <id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />
  <text>Heparin 0.25 ml Prefilled Syringe</text>
  <statusCode code="active" />
  <!-- The effectiveTime in a planned medication activity
       represents the time that the medication activity should occur. -->
  <effectiveTime value="20130905" />
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Medication Information (V2) -->
      ...
      </manufacturedProduct>
    </consumable>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="RSON">
      <!-- Indication (V2) -->
      ...
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
      <!-- Instruction (V2) -->
      ...
    </entryRelationship>
  </substanceAdministration>

```

## 4.68 Planned Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09  
(open)]

**Table 392: Planned Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents planned observations that result in new information about the patient which cannot be classified as a procedure according to the HL7 RIM, i.e., procedures alter the patient's body. Examples of these observations are laboratory tests, diagnostic imaging tests, EEGs, and EKGs.

The importance of the planned observation to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the observation is intended to take place and authorTime indicates when the documentation of the plan occurred.

The Planned Observation template may also indicate the potential insurance coverage for the observation.

**Table 393: Planned Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8581</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-8582</a>	urn:oid:2.16.840.1.113883.11.2 0.9.25 (Planned moodCode (Observation))
templateId	1..1	SHALL		<a href="#">1098-30451</a>	
@root	1..1	SHALL		<a href="#">1098-30452</a>	2.16.840.1.113883.10.20.22.4.4
@extension	1..1	SHALL		<a href="#">1098-32555</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8584</a>	
code	1..1	SHALL		<a href="#">1098-31030</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1098-30453</a>	
@code	1..1	SHALL		<a href="#">1098-32032</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30454</a>	
value	0..1	MAY		<a href="#">1098-31031</a>	
methodCode	0..1	MAY		<a href="#">1098-32043</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-32044</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site)
performer	0..*	MAY		<a href="#">1098-30456</a>	
author	0..*	SHOULD		<a href="#">1098-32033</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31073</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31074</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31075</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32034</a>	
@typeCode	1..1	SHALL		<a href="#">1098-</a>	urn:oid:2.16.840.1.113883.5.10

				<a href="#">32035</a>	02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32036</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32037</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32038</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32039</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32040</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32041</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32042</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.2.02.4.129)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8581).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Observation\)](#) urn:oid:2.16.840.1.113883.11.20.9.25 **STATIC** 2011-09-30 (CONF:1098-8582).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30451) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.44"** (CONF:1098-30452).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32555).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8584).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31030).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30453).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32032).

The effectiveTime in a planned observation represents the time that the observation should occur.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30454).
8. **MAY** contain zero or one [0..1] **value** (CONF:1098-31031).

In a planned observation the provider may suggest that an observation should be performed using a particular method.

9. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-32043).

The targetSiteCode is used to identify the part of the body of concern for the planned observation.

10. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32044).

The clinician who is expected to perform the observation could be identified using procedure/performer.

11. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30456).

The author in a planned observation represents the clinician who is requesting or planning the observation.

12. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32033).

The following entryRelationship represents the priority that a patient or a provider places on the observation.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31073) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31074).
- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31075).

The following entryRelationship represents the indication for the observation.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32034) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32035).
- b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32036).

The following entryRelationship captures any instructions associated with the planned observation.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32037) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32038).
- b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32039).

The following entryRelationship represents the insurance coverage the patient may have for the observation.

16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32040) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32041).
- b. **SHALL** contain exactly one [1..1] **Planned Coverage** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32042).

**Table 394: Planned moodCode (Observation)**

Value Set: Planned moodCode (Observation) urn:oid:2.16.840.1.113883.11.20.9.25 This value set is used to restrict the moodCode on an Observation to future moods. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
INT	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Intent
PRMS	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.11388 3.5.1001	Request

**Figure 189: Planned Observation (V2) Example**

```
<observation classCode="OBS" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.44"
        extension="2014-06-09" />
    <id root="b52bee94-c34b-4e2c-8c15-5ad9d6def205" />
    <code code="59408-5"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />
    <statusCode code="active" />
    <effectiveTime value="20130903" />
    <author typeCode="AUT">
        <!-- Author Participation -->
    </author>
    <entryRelationship typeCode="REFR">
        <!-- Priority Preference -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="RSON">
        <!-- Indication (V2) -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
        <!-- Instruction (V2) -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="COMP">
        <!-- Planned Coverage -->
        ...
    </entryRelationship>
</observation>
```

## 4.69 Planned Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09  
(open)]

**Table 395: Planned Procedure (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Procedure Section (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents planned alterations of the patient's physical condition. Examples of such procedures are tracheostomy, knee replacement, and craniectomy. The priority of the

procedure to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the procedure is intended to take place and authorTime indicates when the documentation of the plan occurred. The Planned Procedure Template may also indicate the potential insurance coverage for the procedure.

**Table 396: Planned Procedure (V2) Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8568</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">1098-8569</a>	urn:oid:2.16.840.1.113883.11.2 0.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30444</a>	
@root	1..1	SHALL		<a href="#">1098-30445</a>	2.16.840.1.113883.10.20.22.4.41
@extension	1..1	SHALL		<a href="#">1098-32554</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8571</a>	
code	1..1	SHALL		<a href="#">1098-31976</a>	
statusCode	1..1	SHALL		<a href="#">1098-30446</a>	
@code	1..1	SHALL		<a href="#">1098-31978</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30447</a>	
methodCode	0..*	MAY		<a href="#">1098-31980</a>	
targetSiteCode	0..*	MAY		<a href="#">1098-31981</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site)
performer	0..*	MAY		<a href="#">1098-30449</a>	
author	0..1	SHOULD		<a href="#">1098-31979</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31079</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31080</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31081</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31982</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31983</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = RSON

observation	1..1	SHALL		<a href="#">1098-31984</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31985</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31986</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-31987</a>	true
act	1..1	SHALL		<a href="#">1098-31989</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31990</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31991</a>	COMP
act	1..1	SHALL		<a href="#">1098-31992</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.129)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="PROC"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8568).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2011-09-30 (CONF:1098-8569).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30444) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.41"** (CONF:1098-30445).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32554).
4. **SHALL** contain at least one [..\*] **id** (CONF:1098-8571).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31976).
  - a. The procedure/code in a planned procedure **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) **OR** SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) **OR** ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) (CONF:1098-31977).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30446).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31978).

The effectiveTime in a planned procedure represents the time that the procedure should occur.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30447).

In a planned procedure the provider may suggest that a procedure should be performed using a particular method.

MethodCode **SHALL NOT** conflict with the method inherent in Procedure / code.

8. **MAY** contain zero or more [0..\*] **methodCode** (CONF:1098-31980).

The targetSiteCode is used to identify the part of the body of concern for the planned procedure.

9. **MAY** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

10. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

11. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31979).

The following entryRelationship represents the priority that a patient or a provider places on the procedure.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31079) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31080).
- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31081).

The following entryRelationship represents the indication for the procedure.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31982) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31983).
- b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31985) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31986).
- b. **SHALL** contain exactly one [1..1] @**inversionInd**="true" True (CONF:1098-31987).
- c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31990) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-31991).
  - b. **SHALL** contain exactly one [1..1] Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-31992).

**Figure 190: Planned Procedure (V2) Example**

```
<entry>
  <procedure moodCode="RQO" classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />
    <!-- **Planned Procedure (V2) template -->
    <id root="9a6d1bac-17d3-4195-89c4-1121bc809b5a" />
    <code code="73761001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT" displayName="Colonoscopy" />
    <statusCode code="active" />
    <effectiveTime value="20130613" />
    <!-- Author Participation -->
    <author typeCode="AUT">
      ...
    </author>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.142" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.143" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="RSON">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Indication-->
        <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09"
/>
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
      <act classCode="ACT" moodCode="INT">
        <!-- Instruction-->
        <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09"
/>
        ...
      </act>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="ACT" moodCode="INT">
        <!-- Planned Coverage -->
        <templateId root="2.16.840.1.113883.10.20.22.4.129" />
        ...
      </observation>
    </entryRelationship>
  </procedure>
</entry>
```

## 4.70 Planned Supply (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09  
(open)]

**Table 397: Planned Supply (V2) Contexts**

Contained By:	Contains:
<a href="#">Plan of Treatment Section (V2)</a> (optional) <a href="#">Nutrition Recommendation</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	<a href="#">Product Instance</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents both medicinal and non-medicinal supplies ordered, requested, or intended for the patient (e.g., medication prescription, order for wheelchair). The importance of the supply order or request to the patient and provider may be indicated in the Priority Preference.

The effective time indicates the time when the supply is intended to take place and author time indicates when the documentation of the plan occurred. The Planned Supply template may also indicate the potential insurance coverage for the procedure.

Depending on the type of supply, the product or participant will be either a Medication Information product (medication), an Immunization Medication Information product (immunization), or a Product Instance participant (device/equipment).

**Table 398: Planned Supply (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8577</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-8578</a>	urn:oid:2.16.840.1.113883.11.2 0.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-30463</a>	
@root	1..1	SHALL		<a href="#">1098-30464</a>	2.16.840.1.113883.10.20.22.4.4 3
@extension	1..1	SHALL		<a href="#">1098-32556</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8580</a>	
statusCode	1..1	SHALL		<a href="#">1098-30458</a>	
@code	1..1	SHALL		<a href="#">1098-32047</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30459</a>	
repeatNumber	0..1	MAY		<a href="#">1098-32063</a>	
quantity	0..1	MAY		<a href="#">1098-32064</a>	
product	0..1	MAY		<a href="#">1098-32049</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32050</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-32051</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32052</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
product	0..1	SHOULD		<a href="#">1098-32325</a>	
performer	0..*	MAY		<a href="#">1098-32048</a>	
author	0..1	SHOULD		<a href="#">1098-31129</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..1	MAY		<a href="#">1098-</a>	

				<a href="#">32094</a>	
participantRole	1..1	SHALL		<a href="#">1098-32095</a>	<a href="#">Product Instance (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.37)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31110</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31111</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31112</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32054</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32055</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32056</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32057</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32058</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32059</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32060</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32061</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32062</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.129)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8577).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#) urn:oid:2.16.840.1.113883.11.20.9.24 **STATIC** 2011-09-30 (CONF:1098-8578).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30463) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.43"** (CONF:1098-30464).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32556).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8580).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30458).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32047).

The effectiveTime in a planned supply represents the time that the supply should occur.

6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30459).

In a Planned Supply, repeatNumber indicates the number of times the supply event can occur. For example, if a medication is filled at a pharmacy and the prescription may be refilled 3 more times, the supply RepeatNumber equals 4.

7. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-32063).
8. **MAY** contain zero or one [0..1] **quantity** (CONF:1098-32064).

This product represents medication that is ordered, requested or intended for the patient.

9. **MAY** contain zero or one [0..1] **product** (CONF:1098-32049) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32050).
  - b. If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product **SHALL NOT** be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant **SHALL NOT** be Product Instance (CONF:1098-32092).

This product represents immunization medication that is ordered, requested or intended for the patient.

10. **MAY** contain zero or one [0..1] **product** (CONF:1098-32051) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32052).
  - b. If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product **SHALL NOT** be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant **SHALL NOT** be Product Instance (CONF:1098-32093).

A product is recommended or even required under certain implementations. This IG makes product as recommended (SHOULD).

11. **SHOULD** contain zero or one [0..1] **product** (CONF:1098-32325).

The clinician who is expected to perform the supply could be identified using supply/performer.

12. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-32048).

The author in a supply represents the clinician who is requesting or planning the supply.

13. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31129).

This participant represents a device that is ordered, requested or intended for the patient.

14. **MAY** contain zero or one [0..1] **participant** (CONF:1098-32094) such that it

- a. **SHALL** contain exactly one [1..1] **Product Instance** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-32095).
- b. If the participant is Product Instance then the product **SHALL NOT** be Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) and the product **SHALL NOT** be Immunization Medication Information (V2) (2.16.840.1.113883.10.20.22.4.54.2) (CONF:1098-32096).

The following entryRelationship represents the priority that a patient or a provider places on the supply.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31110) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31111).
  - b. **SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31112).

The following entryRelationship represents the indication for the supply.

16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32054) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32055).
  - b. **SHALL** contain exactly one [1..1] **Indication (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32056).

The following entryRelationship captures any instructions associated with the planned supply.

17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32057) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32058).
  - b. **SHALL** contain exactly one [1..1] **Instruction (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32059).

The following entryRelationship represents the insurance coverage the patient may have for the supply.

18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32060) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32061).
  - b. **SHALL** contain exactly one [1..1] **Planned Coverage** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32062).

**Figure 191: Planned Supply (V2) Example**

```
<supply moodCode="INT" classCode="SPLY">
    <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09" />
    <!-- Planned Supply (V2) -->
    <id root="9a6d1bac-17d3-4195-89c4-1121bc809b5d" />
    <statusCode code="active" />
    <!-- The effectiveTime in a planned supply represents
        the time that the supply should occur. -->
    <effectiveTime value="20130615" />
    <repeatNumber value="1" />
    <quantity value="3" />
    <!-- This product represents medication that is ordered,
        requested or intended for the patient. -->
    <product>
        <manufacturedProduct classCode="MANU">
            <!-- Medication Information (V2) -->
            <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
            <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
            <manufacturedMaterial>
                <code code="573621" codeSystem="2.16.840.1.113883.6.88" displayName="Proventil 0.09 MG/ACTUAT inhalant solution">
                    <originalText>
                        <reference value="#MedSec_1" />
                    </originalText>
                    <translation code="573621" displayName="Proventil 0.09 MG/ACTUAT inhalant solution" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />
                </code>
            </manufacturedMaterial>
            <manufacturerOrganization>
                <name>Medication Factory Inc.</name>
            </manufacturerOrganization>
        </manufacturedProduct>
    </product>
    <!-- The clinician who is expected to perform the supply
        could be identified using supply/performer. -->
    <performer>
        ...
    </performer>
    <!-- The author in a supply represents the clinician
        who is requesting or planning the supply. -->
    <author typeCode="AUT">
        ...
    </author>
    <entryRelationship typeCode="REFR">
        <!-- Patient Priority Preference -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="REFR">
        <!-- Provider Priority Preference -->
        ...
    </entryRelationship>
    <entryRelationship typeCode="RSON">
```

```

<!-- Indication (V2) -->
...
</entryRelationship>
<entryRelationship typeCode="SUBJ">
    <!-- Instruction (V2) -->
    ...
</entryRelationship>
<entryRelationship typeCode="COMP">
    <!-- Planned Coverage -->
    ...
</entryRelationship>
</supply>

```

## 4.71 Policy Activity (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01 (open)]

**Table 399: Policy Activity (V3) Contexts**

Contained By:	Contains:
<a href="#">Coverage Activity (V3)</a> (required)	<a href="#">US Realm Address (AD.US.FIELDED)</a> (optional)

A policy activity represents the policy or program providing the coverage. The person for whom payment is being provided (i.e., the patient) is the covered party. The subscriber of the policy or program is represented as a participant that is the holder of the coverage. The payer is represented as the performer of the policy activity.

**Table 400: Policy Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8898</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-8899</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8900</a>	
@root	1..1	SHALL		<a href="#">1198-10516</a>	2.16.840.1.113883.10.20.22.4.6 1
@extension	1..1	SHALL		<a href="#">1198-32595</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8901</a>	
code	1..1	SHALL		<a href="#">1198-8903</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.5.2 (Health Insurance Type)
translation	1..*	SHALL		<a href="#">1198-32852</a>	urn:oid:2.16.840.1.114222.4.11. 3591 (Payer)
statusCode	1..1	SHALL		<a href="#">1198-8902</a>	
@code	1..1	SHALL		<a href="#">1198-19109</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
performer	1..1	SHALL		<a href="#">1198-8906</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8907</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
templateId	1..1	SHALL		<a href="#">1198-16808</a>	
@root	1..1	SHALL		<a href="#">1198-16809</a>	2.16.840.1.113883.10.20.22.4.8 7
assignedEntity	1..1	SHALL		<a href="#">1198-8908</a>	
id	1..*	SHALL		<a href="#">1198-8909</a>	
code	0..1	SHOULD		<a href="#">1198-8914</a>	
@code	1..1	SHALL		<a href="#">1198-15992</a>	urn:oid:2.16.840.1.113883.1.11. 10416 (HL7FinanciallyResponsibleParty Type)
addr	0..1	MAY		<a href="#">1198-8910</a>	<a href="#">US Realm Address</a> <a href="#">(AD.US.FIELDED)</a> (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2)

telecom	0..*	MAY		<a href="#">1198-8911</a>	
representedOrganization	0..1	SHOULD		<a href="#">1198-8912</a>	
name	0..1	SHOULD		<a href="#">1198-8913</a>	
performer	0..*	SHOULD		<a href="#">1198-8961</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
templateId	1..1	SHALL		<a href="#">1198-16810</a>	
@root	1..1	SHALL		<a href="#">1198-16811</a>	2.16.840.1.113883.10.20.22.4.8
time	0..1	SHOULD		<a href="#">1198-8963</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-8962</a>	
code	1..1	SHALL		<a href="#">1198-8968</a>	
@code	1..1	SHALL		<a href="#">1198-16096</a>	GUAR
@codeSystem	1..1	SHALL		<a href="#">1198-32165</a>	2.16.840.1.113883.5.110
addr	0..1	SHOULD		<a href="#">1198-8964</a>	<a href="#">US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.2</a>
telecom	0..*	SHOULD		<a href="#">1198-8965</a>	
participant	1..1	SHALL		<a href="#">1198-8916</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8917</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = COV
templateId	1..1	SHALL		<a href="#">1198-16812</a>	
@root	1..1	SHALL		<a href="#">1198-16814</a>	2.16.840.1.113883.10.20.22.4.8
time	0..1	SHOULD		<a href="#">1198-8918</a>	9
low	0..1	SHOULD		<a href="#">1198-8919</a>	
high	0..1	SHOULD		<a href="#">1198-8920</a>	
participantRole	1..1	SHALL		<a href="#">1198-8921</a>	
id	1..*	SHALL		<a href="#">1198-8922</a>	
code	1..1	SHALL		<a href="#">1198-8923</a>	

@code	0..1	SHOULD		<a href="#">1198-16078</a>	urn:oid:2.16.840.1.113883.1.11.18877 (Coverage Role Type)
addr	0..1	SHOULD		<a href="#">1198-8956</a>	
playingEntity	0..1	SHOULD		<a href="#">1198-8932</a>	
name	1..*	SHALL		<a href="#">1198-8930</a>	
sdtc:birthTime	1..1	SHALL		<a href="#">1198-31344</a>	
participant	0..1	SHOULD		<a href="#">1198-8934</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8935</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = HLD
templateId	1..1	SHALL		<a href="#">1198-16813</a>	
@root	1..1	SHALL		<a href="#">1198-16815</a>	2.16.840.1.113883.10.20.22.4.90
time	0..1	MAY		<a href="#">1198-8938</a>	
participantRole	1..1	SHALL		<a href="#">1198-8936</a>	
id	1..*	SHALL		<a href="#">1198-8937</a>	
addr	0..1	SHOULD		<a href="#">1198-8925</a>	
entryRelationship	1..*	SHALL		<a href="#">1198-8939</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8940</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8898).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8899).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8900) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.61"** (CONF:1198-10516).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32595).

This id is a unique identifier for the policy or program providing the coverage

4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8901).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Health Insurance Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 **DYNAMIC** (CONF:1198-8903).

- a. This code **SHALL** contain at least one [1..\*] **translation**, which **SHOULD** be selected from ValueSet **Payer** urn:oid:2.16.840.1.114222.4.11.3591 (CONF:1198-32852).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8902).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19109).

This performer represents the Payer.

- 7. **SHALL** contain exactly one [1..1] **performer** (CONF:1198-8906) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8907).
  - b. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16808).
    - i. This templateId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.87" Payer Performer (CONF:1198-16809).
  - c. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-8908).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-8909).
    - ii. This assignedEntity **SHOULD** contain zero or one [0..1] **code** (CONF:1198-8914).
      - 1. The code, if present, **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet **HL7FinanciallyResponsiblePartyType** urn:oid:2.16.840.1.113883.1.11.10416 **DYNAMIC** (CONF:1198-15992).
    - iii. This assignedEntity **MAY** contain zero or one [0..1] **US Realm Address (AD.US.FIELDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-8910).
    - iv. This assignedEntity **MAY** contain zero or more [0..\*] **telecom** (CONF:1198-8911).
    - v. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1198-8912).
      - 1. The representedOrganization, if present, **SHOULD** contain zero or one [0..1] **name** (CONF:1198-8913).

This performer represents the Guarantor.

- 8. **SHOULD** contain zero or more [0..\*] **performer="PRF"** Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8961) such that it
  - a. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16810).
    - i. This templateId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.88" Guarantor Performer (CONF:1198-16811).
  - b. **SHOULD** contain zero or one [0..1] **time** (CONF:1198-8963).
  - c. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-8962).

- i. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:1198-8968).
    - 1. This code **SHALL** contain exactly one [1..1] @code="GUAR" Guarantor (CONF:1198-16096).
    - 2. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.110" (CONF:1198-32165).
  - ii. This assignedEntity **SHOULD** contain zero or one [0..1] [US Realm Address \(AD.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-8964).
  - iii. This assignedEntity **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-8965).
  - iv. **SHOULD** include assignedEntity/assignedPerson/name AND/OR assignedEntity/representedOrganization/name (CONF:1198-8967).
9. **SHALL** contain exactly one [1..1] **participant** (CONF:1198-8916) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COV" Coverage target (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8917).
  - b. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16812).
    - i. This templateId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.89" Covered Party Participant (CONF:1198-16814).
  - c. **SHOULD** contain zero or one [0..1] **time** (CONF:1198-8918).
    - i. The time, if present, **SHOULD** contain zero or one [0..1] **low** (CONF:1198-8919).
    - ii. The time, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:1198-8920).
  - d. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1198-8921).
    - i. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-8922).
      - 1. This id is a unique identifier for the covered party member. Implementers **SHOULD** use the same GUID for each instance of a member identifier from the same health plan (CONF:1198-8984).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **code** (CONF:1198-8923).
      - 1. This code **SHOULD** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [Coverage Role Type](#) urn:oid:2.16.840.1.113883.1.11.18877 **DYNAMIC** (CONF:1198-16078).
    - iii. This participantRole **SHOULD** contain zero or one [0..1] **addr** (CONF:1198-8956).
      - 1. The content of addr **SHALL** be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:1198-10484).
    - iv. This participantRole **SHOULD** contain zero or one [0..1] **playingEntity** (CONF:1198-8932).

If the covered party's name is recorded differently in the health plan and in the registration/pharmacy benefit summary (due to marriage or for other reasons), use the name as it is recorded in the health plan.

1. The playingEntity, if present, **SHALL** contain at least one [1..\*] **name** (CONF:1198-8930).

If the covered party's date of birth is recorded differently in the health plan and in the registration/pharmacy benefit summary, use the date of birth as it is recorded in the health plan.

2. The playingEntity, if present, **SHALL** contain exactly one [1..1] **sdtc:birthTime** (CONF:1198-31344).
  - a. The prefix **sdtc**: **SHALL** be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the birthTime element (CONF:1198-31345).

When the Subscriber is the patient, the participant element describing the subscriber **SHALL NOT** be present. This information will be recorded instead in the data elements used to record member information.

10. **SHOULD** contain zero or one [0..1] **participant** (CONF:1198-8934) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="HLD" Holder (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8935).
  - b. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16813).
    - i. This templateId **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.10.20.22.4.90" Policy Holder Participant (CONF:1198-16815).
  - c. **MAY** contain zero or one [0..1] **time** (CONF:1198-8938).
  - d. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1198-8936).
    - i. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-8937).
      1. This id is a unique identifier for the subscriber of the coverage (CONF:1198-10120).
      - ii. This participantRole **SHOULD** contain zero or one [0..1] **addr** (CONF:1198-8925).
        1. The content of addr **SHALL** be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:1198-10483).
    - e. When the Subscriber is the patient, the participant element describing the subscriber **SHALL NOT** be present. This information will be recorded instead in the data elements used to record member information (CONF:1198-17139).
11. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-8939) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8940).

- b. The target of a policy activity with act/entryRelationship/@typeCode="REFR" **SHALL** be an authorization activity (templateId 2.16.840.1.113883.10.20.1.19) **OR** an act, with act@classCode="ACT"] and act[@moodCode="DEF"], representing a description of the coverage plan (CONF:1198-8942).
- c. A description of the coverage plan **SHALL** contain one or more act/id, to represent the plan identifier, and an act/text with the name of the plan (CONF:1198-8943).

**Table 401: Health Insurance Type**

Value Set: Health Insurance Type urn:oid:2.16.840.1.113883.3.88.12.3221.5.2			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
12	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan
13	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary End- Stage Renal Disease Beneficiary in the 12 month coordination period with an employer's group health plan
14	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary, No- fault Insurance including Auto is Primary
15	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Worker's Compensation
16	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Public Health Service (PHS)or Other Federal Agency
41	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Black Lung
42	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Veteran's Administration
43	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary Disabled Beneficiary Under Age 65 with Large Group Health Plan (LGHP)
47	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Medicare Secondary, Other Liability Insurance is Primary
AP	Insurance Type Code	urn:oid:2.16.840.1.11388 3.3.88.12.3221.5.2	Auto Insurance Policy
...			

**Table 402: HL7FinanciallyResponsiblePartyType**

Value Set: HL7FinanciallyResponsiblePartyType urn:oid:2.16.840.1.113883.1.11.10416 RoleClass 2.16.840.1.113883.5.110 <a href="http://www.hl7.org/memonly/downloads/v3edition.cfm#V32008">http://www.hl7.org/memonly/downloads/v3edition.cfm#V32008</a> Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
GUAR	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	Guarantor
EMP	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	Employee
INVSBJ	HL7RoleClass	urn:oid:2.16.840.1.11388 3.5.110	Investigation Subject

**Table 403: Coverage Role Type**

Value Set: Coverage Role Type urn:oid:2.16.840.1.113883.1.11.18877 A value set of HL7 role Codes for role recognized through the issuance of insurance coverage to an identified covered party who has this relationship with the policy holder such as the policy holder themselves (self), spouse, child, etc. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
FAMDEP	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Family dependent
FSTUD	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Full-time student
SELF	HL7RoleCode	urn:oid:2.16.840.1.11388 3.5.111	Self
...			

**Figure 192: Policy Activity (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.61" extension="2015-08-01" />
    <id root="3e676a50-7aac-11db-9fe1-0800200c9a66" />
    <code code="12" displayName="Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan"
          codeSystemName="ASC X12"
          codeSystem="2.16.840.1.113883.6.255.1336">
        <translation code="2" displayName="Medicare"
                    codeSystem="2.16.840.1.113883.3.221.5"
                    codeSystemName="Source of Payment Typology (PHDSC)"></translation>
    </code>
    <statusCode code="completed" />
    <!-- Insurance company information -->
    <performer typeCode="PRF">
        <templateId root="2.16.840.1.113883.10.20.22.4.87" />
        <time>
            <low nullFlavor="UNK" />
            <high nullFlavor="UNK" />
        </time>
        <assignedEntity>
            <id root="2.16.840.1.113883.19" />
            <code code="PAYOR" codeSystem="2.16.840.1.113883.5.110" codeSystemName="HL7
RoleCode" />
            <addr use="WP">
                <streetAddressLine>123 Insurance Road</streetAddressLine>
                <city>Blue Bell</city>
                <state>MA</state>
                <postalCode>02368</postalCode>
                <country>US</country>
                <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
            </addr>
            <telecom value="tel:+(555) 555-1515" use="WP" />
            <representedOrganization>
                <name>Good Health Insurance</name>
                <telecom value="tel:+(555) 555-1515" use="WP" />
                <addr use="WP">
                    <streetAddressLine>123 Insurance Road</streetAddressLine>
                    <city>Blue Bell</city>
                    <state>MA</state>
                    <postalCode>02368</postalCode>
                    <country>US</country>
                </addr>
            </representedOrganization>
        </assignedEntity>
    </performer>
    <!-- Guarantor information (the person responsible for the final bill) -->
    <performer typeCode="PRF">
        <templateId root="2.16.840.1.113883.10.20.22.4.88" />
        <time>
            <low nullFlavor="UNK" />
            <high nullFlavor="UNK" />
        </time>
        <assignedEntity>
            <id root="329fcdf0-7ab3-11db-9fe1-0800200c9a66" />
        </assignedEntity>
    </performer>
</act>

```

```

<code code="GUAR" codeSystem="2.16.840.1.113883.5.111" codeSystemName="HL7
RoleCode" />
    <addr use="HP">
        <streetAddressLine>17 Daws Rd.</streetAddressLine>
        <city>Blue Bell</city>
        <state>MA</state>
        <postalCode>02368</postalCode>
        <country>US</country>
    </addr>
    <telecom value="tel:+(781) 555-1212" use="HP" />
    <assignedPerson>
        <name>
            <prefix>Mr.</prefix>
            <given>Adam</given>
            <given>Frankie</given>
            <family>Everyman</family>
        </name>
    </assignedPerson>
</assignedEntity>
</performer>
<!-- Covered party -->
<participant typeCode="COV">
    <templateId root="2.16.840.1.113883.10.20.22.4.89.2" />
    <time>
        <low nullFlavor="UNK" />
        <high nullFlavor="UNK" />
    </time>
    <participantRole classCode="PAT">
        <!-- Health plan ID for patient. -->
        <id root="1.1.1.1.1.1.14" extension="1138345" />
        <code code="SELF" codeSystem="2.16.840.1.113883.5.111" />
        <addr use="HP">
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Blue Bell</city>
            <state>MA</state>
            <postalCode>02368</postalCode>
            <country>US</country>
        </addr>
        <playingEntity>
            <name>
                <!-- Name is needed if different than name on health plan. -->
                <prefix>Mr.</prefix>
                <given>Frank</given>
                <given>A.</given>
                <family>Everyman</family>
            </name>
        </playingEntity>
    </participantRole>
</participant>
<!-- Policy holder -->
<participant typeCode="HLD">
    <templateId root="2.16.840.1.113883.10.20.22.4.90.2" />
    <participantRole>
        <id extension="1138345" root="2.16.840.1.113883.19" />
        <addr use="HP">
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Blue Bell</city>

```

```

<state>MA</state>
<postalCode>02368</postalCode>
<country>US</country>
</addr>
</participantRole>
</participant>
<entryRelationship typeCode="REFR">
  <act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.1.19" />
    . . .
  </act>
</entryRelationship>
</act>

```

## 4.72 Postprocedure Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01 (open)]

**Table 404: Postprocedure Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Postprocedure Diagnosis Section (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (required)

This template represents the diagnosis or diagnoses discovered or confirmed during the procedure. They may be the same as preprocedure diagnoses or indications.

**Table 405: Postprocedure Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8756</a>	ACT
@moodCode	1..1	SHALL		<a href="#">1198-8757</a>	EVN
templateId	1..1	SHALL		<a href="#">1198-16766</a>	
@root	1..1	SHALL		<a href="#">1198-16767</a>	2.16.840.1.113883.10.20.22.4.51
@extension	1..1	SHALL		<a href="#">1198-32539</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19151</a>	
@code	1..1	SHALL		<a href="#">1198-19152</a>	59769-0
@codeSystem	1..1	SHALL		<a href="#">1198-32166</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-8759</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8760</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15583</a>	<a href="#">Problem Observation (V3)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.4:2015-08-01</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" (CONF:1198-8756).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:1198-8757).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-16766) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.51" (CONF:1198-16767).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32539).
4. **SHALL** contain exactly one [1..1] code (CONF:1198-19151).
  - a. This code **SHALL** contain exactly one [1..1] @code="59769-0" Postprocedure diagnosis (CONF:1198-19152).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32166).
5. **SHALL** contain at least one [1..\*] entryRelationship (CONF:1198-8759) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8760).
- b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15583).

**Figure 193: Postprocedure Diagnosis (V3) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.22.2.36" extension="2015-08-01" />
  <code code="59769-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="POSTPROCEDURE DIAGNOSIS" />
  <title>Postprocedure Diagnosis</title>
  <text>
    ...
  </text>
  <entry>
    <act moodCode="EVN" classCode="ACT">
      <templateId root="2.16.840.1.113883.10.20.22.4.51" extension="2015-08-01" />
      <!-- ** Postprocedure Diagnosis ** -->
      ...
    </act>
  </entry>
</section>

```

## 4.73 Precondition for Substance Administration (V2)

[criterion: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 (open)]

**Table 406: Precondition for Substance Administration (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	

A criterion for administration can be used to record that the medication is to be administered only when the associated criteria are met.

**Table 407: Precondition for Substance Administration (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
criterion (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7372</a>	
@root	1..1	SHALL		<a href="#">1098-10517</a>	2.16.840.1.113883.10.20.22.4.25
@extension	1..1	SHALL		<a href="#">1098-32603</a>	2014-06-09
code	1..1	SHALL	CD	<a href="#">1098-32396</a>	
@code	1..1	SHALL		<a href="#">1098-32397</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32398</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">1098-7369</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7372) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.25" (CONF:1098-10517).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32603).
2. **SHALL** contain exactly one [1..1] **code** with @xsi:type="CD" (CONF:1098-32396).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1098-32397).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32398).
3. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7369).

**Figure 194: Precondition for Substance Administration (V2) Example**

```
<criterion>
  <templateId root="2.16.840.1.113883.10.20.22.4.25"
    extension="2014-06-09" />
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <value xsi:type="CD"
    code="56018004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Wheezing" />
</criterion>
```

## 4.74 Pregnancy Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.15.3.8 (open) ]

**Table 408: Pregnancy Observation Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	<a href="#">Estimated Date of Delivery</a> (optional)

This clinical statement represents current and/or prior pregnancy dates enabling investigators to determine if the subject of the case report was pregnant during the course of a condition.

**Table 409: Pregnancy Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8)					
@classCode	1..1	SHALL		<a href="#">81-451</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-452</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-16768</a>	
@root	1..1	SHALL		<a href="#">81-16868</a>	2.16.840.1.113883.10.20.15.3.8
code	1..1	SHALL		<a href="#">81-19153</a>	
@code	1..1	SHALL		<a href="#">81-19154</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">81-26505</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">81-455</a>	
@code	1..1	SHALL		<a href="#">81-19110</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">81-2018</a>	
value	1..1	SHALL	CD	<a href="#">81-457</a>	
@code	1..1	SHALL		<a href="#">81-26460</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 77386006
entryRelationship	0..1	MAY		<a href="#">81-458</a>	
@typeCode	1..1	SHALL		<a href="#">81-459</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">81-15584</a>	<a href="#">Estimated Date of Delivery</a> (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.1)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-451).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-452).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-16768) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.15.3.8" (CONF:81-16868).
4. **SHALL** contain exactly one [1..1] code (CONF:81-19153).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:81-19154).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:81-26505).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-455).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19110).
- 6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-2018).
- 7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:81-457).
  - a. This value **SHALL** contain exactly one [1..1] @code="77386006" Pregnant (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26460).
- 8. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:81-458) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-459).
  - b. **SHALL** contain exactly one [1..1] **Estimated Date of Delivery** (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.1) (CONF:81-15584).

**Figure 195: Pregnancy Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.15.3.8"/>
  <id extension="123456789" root="2.16.840.1.113883.19"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="20110410"/>
  </effectiveTime>
  <value xsi:type="CD" code="77386006"
    displayName="pregnant"
    codeSystem="2.16.840.1.113883.6.96"/>
  <entryRelationship typeCode="REFR">
    <templateId root="2.16.840.1.113883.10.20.15.3.1"/>
    .
    .
  </entryRelationship>
</observation>
```

## 4.75 Preoperative Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01 (open)]

**Table 410: Preoperative Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Preoperative Diagnosis Section (V3)</a> (optional)	<a href="#">Problem Observation (V3)</a> (required)

This template represents the surgical diagnosis or diagnoses assigned to the patient before the surgical procedure and is the reason for the surgery. The preoperative diagnosis is, in the opinion of the surgeon, the diagnosis that will be confirmed during surgery.

**Table 411: Preoperative Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-10090</a>	ACT
@moodCode	1..1	SHALL		<a href="#">1198-10091</a>	EVN
templateId	1..1	SHALL		<a href="#">1198-16770</a>	
@root	1..1	SHALL		<a href="#">1198-16771</a>	2.16.840.1.113883.10.20.22.4.65
@extension	1..1	SHALL		<a href="#">1198-32540</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19155</a>	
@code	1..1	SHALL		<a href="#">1198-19156</a>	10219-4
@codeSystem	1..1	SHALL		<a href="#">1198-32167</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-10093</a>	
@typeCode	1..1	SHALL		<a href="#">1198-10094</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15605</a>	<a href="#">Problem Observation (V3)</a> <a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CONF:1198-10090).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1198-10091).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16770) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.65" (CONF:1198-16771).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32540).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19155).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="10219-4" Preoperative Diagnosis (CONF:1198-19156).

- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32167).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-10093) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-10094).
  - b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15605).

**Figure 196: Preoperative Diagnosis (V3) Example**

```

<act moodCode="EVN" classCode="ACT">
  <templateId root="2.16.840.1.113883.10.20.22.4.65" extension="2015-08-01" />
  <code code="10219-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Preoperative Diagnosis" />
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      . . .
      </observation>
    </entryRelationship>
  </act>

```

## 4.76 Pressure Ulcer Observation (DEPRECATED)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.70:2014-06-09 (open)]

**Table 412: Pressure Ulcer Observation (DEPRECATED) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional)	

The pressure ulcer observation contains details about the pressure ulcer such as the stage of the ulcer, location, and dimensions. If the pressure ulcer is a diagnosis, you may find this on the problem list. An example of how this would appear is in the Problem Section.

THIS TEMPLATE HAS BEEN DEPRECATED IN C-CDA R2 AND MAY BE DELETED FROM A FUTURE RELEASE OF THIS IMPLEMENTATION GUIDE. USE OF THIS TEMPLATE IS NOT RECOMMENDED.

**Reason for deprecation:** This template has been replaced by Longitudinal Care Wound Observation (2.16.840.1.113883.10.20.22.4.114).

**Table 413: Pressure Ulcer Observation (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.70:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-14383</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14384</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1098-14385</a>	
templateId	1..1	SHALL		<a href="#">1098-14387</a>	
@root	1..1	SHALL		<a href="#">1098-14388</a>	2.16.840.1.113883.10.20.22.4.70
@extension	1..1	SHALL		<a href="#">1098-32594</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-14389</a>	
code	1..1	SHALL		<a href="#">1098-14759</a>	
@code	1..1	SHALL		<a href="#">1098-14760</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ASSERTION
text	0..1	SHOULD		<a href="#">1098-14391</a>	
reference	0..1	SHOULD		<a href="#">1098-14392</a>	
@value	1..1	SHALL		<a href="#">1098-15585</a>	
statusCode	1..1	SHALL		<a href="#">1098-14394</a>	
@code	1..1	SHALL		<a href="#">1098-19111</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-14395</a>	
value	1..1	SHALL	CD	<a href="#">1098-14396</a>	urn:oid:2.16.840.1.113883.11.2 0.9.35 (Pressure Ulcer Stage)
targetSiteCode	0..*	SHOULD		<a href="#">1098-14797</a>	
@code	1..1	SHALL		<a href="#">1098-14798</a>	urn:oid:2.16.840.1.113883.11.2 0.9.36 (Pressure Point )
qualifier	0..1	SHOULD		<a href="#">1098-14799</a>	
name	1..1	SHALL		<a href="#">1098-14800</a>	
@code	0..1	SHOULD		<a href="#">1098-14801</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 272741003

value	1..1	SHALL		<a href="#">1098-14802</a>	
@code	0..1	SHOULD		<a href="#">1098-14803</a>	urn:oid:2.16.840.1.113883.11.2 0.9.37 (TargetSite Qualifiers )
entryRelationship	0..1	SHOULD		<a href="#">1098-14410</a>	
@typeCode	1..1	SHALL		<a href="#">1098-14411</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-14619</a>	
@classCode	1..1	SHALL		<a href="#">1098-14685</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14686</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
code	1..1	SHALL		<a href="#">1098-14620</a>	
@code	1..1	SHALL		<a href="#">1098-14621</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 401238003
value	1..1	SHALL	PQ	<a href="#">1098-14622</a>	
entryRelationship	0..1	SHOULD		<a href="#">1098-14601</a>	
@typeCode	1..1	SHALL		<a href="#">1098-14602</a>	COMP
observation	1..1	SHALL		<a href="#">1098-14623</a>	
@classCode	1..1	SHALL		<a href="#">1098-14687</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14688</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
code	1..1	SHALL		<a href="#">1098-14624</a>	
@code	1..1	SHALL		<a href="#">1098-14625</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 401239006
value	1..1	SHALL	PQ	<a href="#">1098-14626</a>	
entryRelationship	0..1	SHOULD		<a href="#">1098-14605</a>	
@typeCode	1..1	SHALL		<a href="#">1098-14606</a>	COMP
observation	1..1	SHALL		<a href="#">1098-14627</a>	
@classCode	1..1	SHALL		<a href="#">1098-14689</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14690</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN

code	1..1	SHALL		<a href="#">1098-14628</a>	
@code	1..1	SHALL		<a href="#">1098-14629</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 425094009
value	1..1	SHALL	PQ	<a href="#">1098-14630</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14383).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14384).

Use negationInd="true" to indicate that the problem was not observed.

3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:1098-14385).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-14387) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.70"** (CONF:1098-14388).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32594).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1098-14389).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1098-14759).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:1098-14760).
7. **SHOULD** contain zero or one [0..1] **text** (CONF:1098-14391).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-14392).
    - i. The reference, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:1098-15585).
      1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-15586).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-14394).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19111).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-14395).
10. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Pressure Ulcer Stage](#) urn:oid:2.16.840.1.113883.11.20.9.35 **STATIC** 2014-09-01 (CONF:1098-14396).
11. **SHOULD** contain zero or more [0..\*] **targetSiteCode** (CONF:1098-14797).
  - a. The targetSiteCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHOULD** be selected from ValueSet [Pressure Point](#) urn:oid:2.16.840.1.113883.11.20.9.36 **STATIC** (CONF:1098-14798).
  - b. The targetSiteCode, if present, **SHOULD** contain zero or one [0..1] **qualifier** (CONF:1098-14799).

- i. The qualifier, if present, **SHALL** contain exactly one [1..1] **name** (CONF:1098-14800).
    - 1. This name **SHOULD** contain zero or one [0..1] @code="272741003" laterality (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14801).
  - ii. The qualifier, if present, **SHALL** contain exactly one [1..1] **value** (CONF:1098-14802).
    - 1. This value **SHOULD** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [TargetSite Qualifiers](#) urn:oid:2.16.840.1.113883.11.20.9.37 **STATIC** 2014-09-01 (CONF:1098-14803).
12. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-14410) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-14411).
  - b. **SHALL** contain exactly one [1..1] **observation** (CONF:1098-14619).
    - i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14685).
    - ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14686).
    - iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1098-14620).
      - 1. This code **SHALL** contain exactly one [1..1] @code="401238003" Length of Wound (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14621).
    - iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1098-14622).
13. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-14601) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:1098-14602).
  - b. **SHALL** contain exactly one [1..1] **observation** (CONF:1098-14623).
    - i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14687).
    - ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14688).
    - iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1098-14624).
      - 1. This code **SHALL** contain exactly one [1..1] @code="401239006" Width of Wound (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14625).
    - iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1098-14626).
14. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-14605) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:1098-14606).

- b. **SHALL** contain exactly one [1..1] **observation** (CONF:1098-14627).
  - i. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14689).
  - ii. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14690).
  - iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1098-14628).
    - 1. This code **SHALL** contain exactly one [1..1] **@code="425094009"** Depth of Wound (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1098-14629).
  - iv. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type="PQ"** (CONF:1098-14630).

**Table 414: Pressure Point**

Value Set: Pressure Point urn:oid:2.16.840.1.113883.11.20.9.36 This value set represents points on the body that are susceptible to pressure ulcer development. Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
43631005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	occipital region structure
23747009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	skin structure of chin
91774008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	structure of right shoulder
7874003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	structure of scapular region of back; 272741003 = laterality; 24028007 = right (qualifier value)
368149001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	right elbow region structure
368148009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	left elbow region structure
87141009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	sacral vertebra structure
122495006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	thoracic spine structure
122496007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	lumbar spine structure
287579007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	right hip region structure
...			

**Table 415: TargetSite Qualifiers**

Value Set: TargetSite Qualifiers urn:oid:2.16.840.1.113883.11.20.9.37 Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
255549009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	anterior
7771000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	left
255561001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	medial
255551008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	posterior
24028007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	right

## 4.77 Priority Preference

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.143 (open) ]

**Table 416: Priority Preference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents priority preferences chosen by a patient or a care provider. Priority preferences are choices made by care providers or patients or both relative to options for care or treatment (including scheduling, care experience, and meeting of personal health goals), the sharing and disclosure of health information, and the prioritization of concerns and problems.

**Table 417: Priority Preference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)					
@classCode	1..1	SHALL		<a href="#">1098-30949</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-30950</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-30951</a>	
@root	1..1	SHALL		<a href="#">1098-30952</a>	2.16.840.1.113883.10.20.22.4.143
id	1..*	SHALL		<a href="#">1098-30953</a>	
code	1..1	SHALL		<a href="#">1098-30954</a>	
@code	1..1	SHALL		<a href="#">1098-30955</a>	225773000
@codeSystem	1..1	SHALL		<a href="#">1098-30956</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	0..1	SHOULD		<a href="#">1098-32327</a>	
value	1..1	SHALL	CD	<a href="#">1098-30957</a>	urn:oid:2.16.840.1.113883.11.2 0.9.60 (Priority Level)
author	0..*	SHOULD		<a href="#">1098-30958</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30949).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30950).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30951) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.143" (CONF:1098-30952).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-30953).
5. **SHALL** contain exactly one [1..1] code (CONF:1098-30954).
  - a. This code **SHALL** contain exactly one [1..1] @code="225773000" Preference (CONF:1098-30955).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30956).
6. **SHOULD** contain zero or one [0..1] effectiveTime (CONF:1098-32327).

7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Priority Level** urn:oid:2.16.840.1.113883.11.20.9.60 **STATIC** 2014-06-11 (CONF:1098-30957).
8. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30958).

**Table 418: Priority Level**

Value Set: Priority Level urn:oid:2.16.840.1.113883.11.20.9.60 A value set of SNOMED-CT that contains concepts representing priority. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
394849002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	High priority
394848005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Normal priority
441808003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Delayed priority

**Figure 197: Priority Preference Example**

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.143" />
  <id root="7d66f448-ba82-4291-a9da-9e5db5e58803" />
  <code code="225773000"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="preference" />
  <value xsi:type="CD"
    code="394849002"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="High priority" />
  <!--
    Author Participation Template
    In this case, the author is the same as a participant already described in the
    header.
    However, the author could be a the record target (patient), a different provider -
    someone else in the header, or a new provider not elsewhere specified.
  -->
  <author>
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    <time value="20130801" />
    <assignedAuthor>
      <!-- This id points back to a participant in the header -->
      <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
    </assignedAuthor>
  </author>
</observation>

```

## 4.78 Problem Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 (open) ]

**Table 419: Problem Concern Act (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Problem Section (entries optional) (V3)</a> (optional) <a href="#">Problem Section (entries required) (V3)</a> (required)	<a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Problem Observation (V3)</a> (required)

This template reflects an ongoing concern on behalf of the provider that placed the concern on a patient's problem list. So long as the underlying condition is of concern to the provider (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest to the provider), the statusCode is "active". Only when the underlying condition is no longer of concern is the statusCode set to "completed". The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, the clinician may remain concerned about a prior heart attack).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

The effectiveTime/low of the Problem Concern Act asserts when the concern became active. The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

A Problem Concern Act can contain many Problem Observations (templateId 2.16.840.1.113883.10.20.22.4.4). Each Problem Observation is a discrete observation of a condition, and therefore will have a statusCode of "completed". The many Problem Observations nested under a Problem Concern Act reflect the change in the clinical understanding of a condition over time. For instance, a Concern may initially contain a Problem Observation of "chest pain":

- Problem Concern 1
  - Problem Observation: Chest Pain

Later, a new Problem Observation of "esophagitis" will be added, reflecting a better understanding of the nature of the chest pain. The later problem observation will have a more recent author time stamp.

- Problem Concern 1
  - Problem Observation (author/time Jan 3, 2012): Chest Pain
  - Problem Observation (author/time Jan 6, 2012): Esophagitis

Many systems display the nested Problem Observation with the most recent author time stamp, and provide a mechanism for viewing prior observations.

**Table 420: Problem Concern Act (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-9024</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-9025</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-16772</a>	
@root	1..1	SHALL		<a href="#">1198-16773</a>	2.16.840.1.113883.10.20.22.4.3
@extension	1..1	SHALL		<a href="#">1198-32509</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-9026</a>	
code	1..1	SHALL		<a href="#">1198-9027</a>	
@code	1..1	SHALL		<a href="#">1198-19184</a>	CONC
@codeSystem	1..1	SHALL		<a href="#">1198-32168</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6
statusCode	1..1	SHALL		<a href="#">1198-9029</a>	
@code	1..1	SHALL		<a href="#">1198-31525</a>	urn:oid:2.16.840.1.113883.11.2 0.9.19 (ProblemAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1198-9030</a>	
low	1..1	SHALL		<a href="#">1198-9032</a>	
high	0..1	MAY		<a href="#">1198-9033</a>	
author	0..*	SHOULD		<a href="#">1198-31146</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.22.4.119)</a>
entryRelationship	1..*	SHALL		<a href="#">1198-9034</a>	
@typeCode	1..1	SHALL		<a href="#">1198-9035</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15980</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31638</a>	

@typeCode	1..1	SHALL		<a href="#">1198-31639</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31640</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-9024).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-9025).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-16772) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.3" (CONF:1198-16773).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32509).
4. **SHALL** contain at least one [1..\*] id (CONF:1198-9026).
5. **SHALL** contain exactly one [1..1] code (CONF:1198-9027).
  - a. This code **SHALL** contain exactly one [1..1] @code="CONC" Concern (CONF:1198-19184).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32168).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1198-9029).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

- a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProblemAct statusCode](#)  
urn:oid:2.16.840.1.113883.11.20.9.19 **STATIC** (CONF:1198-31525).
7. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1198-9030).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:1198-9032).  
Note: The effectiveTime/low of the Problem Concern Act asserts when the concern became active.
  - b. This effectiveTime **MAY** contain zero or one [0..1] high (CONF:1198-9033).  
Note: The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31146).
9. **SHALL** contain at least one [1..\*] entryRelationship (CONF:1198-9034) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-9035).
  - b. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15980).

The following entryRelationship represents the importance of the concern to a provider.

10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31638) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31639).
- b. **SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31640).

**Figure 198: Problem Concern Act (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
    <!-- ** Problem Concern Act (V3) ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.3"
        extension="2015-08-01" />
    <id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7" />
    <code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern" />
    <!-- The statusCode represents the need to continue tracking the problem -->
    <!-- This is of ongoing concern to the provider -->
    <statusCode code="active" />
    <effectiveTime>
        <!-- The low value represents when the problem was first recorded in the patient's
chart -->
        <!-- Concern was documented on July 6, 2013 -->
        <low value="201307061145-0800" />
    </effectiveTime>
    <author typeCode="AUT">
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        <!-- Same as Concern effectiveTime/low -->
        <time value="201307061145-0800" />
        <assignedAuthor>
            <id extension="555555555" root="2.16.840.1.113883.4.6" />
            <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.6.101"
codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />
        </assignedAuthor>
    </author>
    <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Problem Observation (V3) ** -->
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
            <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
            <code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Condition" />
            <!-- The statusCode reflects the status of the observation itself -->
            <statusCode code="completed" />
            <effectiveTime>
                <!-- The low value reflects the date of onset -->
                <!-- Based on patient symptoms, presumed onset is July 3, 2013 -->
                <low value="20130703" />
                <!-- The high value reflects when the problem was known to be resolved -->
                <!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->
            >
                <high value="20080814" />
            </effectiveTime>
            <value xsi:type="CD"
code="233604007"
codeSystem="2.16.840.1.113883.6.96"
displayName="Pneumonia" />
            <author typeCode="AUT">
                <templateId root="2.16.840.1.113883.10.20.22.4.119" />
                <time value="200808141030-0800" />
                <assignedAuthor>
                    <id extension="555555555" root="2.16.840.1.113883.4.6" />
                    <code code="207QA0505X"
displayName="Adult Medicine"

```

```

        codeSystem="2.16.840.1.113883.6.101"
        codeSystemName="Healthcare Provider Taxonomy (HIPAA) " />
      </assignedAuthor>
    </author>
  </observation>
</entryRelationship>
</act>

```

## 4.79 Problem Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01  
(open)]

**Table 421: Problem Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Complications Section (V3)</a> (optional) <a href="#">Deceased Observation (V3)</a> (optional) <a href="#">Hospital Discharge Diagnosis (V3)</a> (required) <a href="#">Encounter Diagnosis (V3)</a> (required) <a href="#">History of Past Illness Section (V3)</a> (optional) <a href="#">Hospital Admission Diagnosis (V3)</a> (required) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Procedure Findings Section (V3)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (required) <a href="#">Preoperative Diagnosis (V3)</a> (required) <a href="#">Postprocedure Diagnosis (V3)</a> (required)	<a href="#">Problem Status</a> (optional) <a href="#">Age Observation</a> (optional) <a href="#">Prognosis Observation</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional)

This template reflects a discrete observation about a patient's problem. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the "biologically relevant time" is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

The effectiveTime of the Problem Observation is the definitive indication of whether or not the underlying condition is resolved. If the problem is known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

**Table 422: Problem Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-9041</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-9042</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1198-10139</a>	
templateId	1..1	SHALL		<a href="#">1198-14926</a>	
@root	1..1	SHALL		<a href="#">1198-14927</a>	2.16.840.1.113883.10.20.22.4.4
@extension	1..1	SHALL		<a href="#">1198-32508</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-9043</a>	
code	1..1	SHALL		<a href="#">1198-9045</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type)
statusCode	1..1	SHALL		<a href="#">1198-9049</a>	
@code	1..1	SHALL		<a href="#">1198-19112</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-9050</a>	
low	1..1	SHALL		<a href="#">1198-15603</a>	
high	0..1	MAY		<a href="#">1198-15604</a>	
value	1..1	SHALL	CD	<a href="#">1198-9058</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
@code	0..1	MAY		<a href="#">1198-31871</a>	
qualifier	0..*	MAY		<a href="#">1198-31870</a>	
translation	0..*	MAY		<a href="#">1198-16749</a>	
@code	0..1	MAY		<a href="#">1198-16750</a>	urn:oid:2.16.840.1.113883.6.90 (ICD-10-CM)
author	0..*	SHOULD		<a href="#">1198-31147</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.119)</a>
entryRelationship	0..1	MAY		<a href="#">1198-9059</a>	
@typeCode	1..1	SHALL		<a href="#">1198-9060</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) =

				SUBJ
@inversionInd	1..1	SHALL	<a href="#">1198-9069</a>	true
observation	1..1	SHALL	<a href="#">1198-15590</a>	<a href="#">Age Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.31)</a>
entryRelationship	0..1	MAY	<a href="#">1198-29951</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31531</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-29952</a>	<a href="#">Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.113)</a>
entryRelationship	0..*	MAY	<a href="#">1198-31063</a>	
@typeCode	1..1	SHALL	<a href="#">1198-31532</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-31064</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.143)</a>
entryRelationship	0..1	MAY	<a href="#">1198-9063</a>	
@typeCode	1..1	SHALL	<a href="#">1198-9068</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-15591</a>	<a href="#">Problem Status (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.6)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-9041).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-9042).

The negationInd is used to indicate the absence of the condition in observation/value. A negationInd of "true" coupled with an observation/value of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:1198-10139).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14926) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:1198-14927).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32508).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1198-9043).

6. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2012-06-01 (CONF:1198-9045).
  - a. If code is selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2012-06-01, then it **SHALL** have at least one [1..\*] translation, which **SHOULD** be selected from ValueSet [Problem Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2014-09-02 (CONF:1198-32950).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-9049).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19112).

If the problem is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'. Therefore, the existence of an high element within a problem does indicate that the problem has been resolved.

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became biologically active.

- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-15603).
- The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became biologically resolved.
- b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1198-15604).
9. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1198-9058).

A negationInd of "true" coupled with an observation/value/@code of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

- a. This value **MAY** contain zero or one [0..1] @code (CONF:1198-31871).
- The observation/value and all the qualifiers together (often referred to as a post-coordinated expression) make up one concept. Qualifiers constrain the meaning of the primary code, and cannot negate it or change its meaning. Qualifiers can only be used according to well-defined rules of post-coordination and only if the underlying code system defines the use of such qualifiers or if there is a third code system that specifies how other code systems may be combined.

For example, SNOMED CT allows constructing concepts as a combination of multiple codes. SNOMED CT defines a concept "pneumonia (disorder)" (233604007) an attribute "finding site" (363698007) and another concept "left lower lobe of lung (body structure)" (41224006). SNOMED CT allows one to combine these codes in a code phrase, as shown in the sample XML.

- b. This value **MAY** contain zero or more [0..\*] **qualifier** (CONF:1198-31870).

- c. This value **MAY** contain zero or more [0..\*] **translation** (CONF:1198-16749) such that it
  - i. **MAY** contain zero or one [0..1] **@code** (CodeSystem: ICD-10-CM urn:oid:2.16.840.1.113883.6.90 **STATIC**) (CONF:1198-16750).
- 10. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31147).
- 11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-9059) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-9060).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1198-9069).
  - c. **SHALL** contain exactly one [1..1] **Age Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15590).
- 12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-29951) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31531).
  - b. **SHALL** contain exactly one [1..1] **Prognosis Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:1198-29952).
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31063) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31532).
  - b. **SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31064).
- 14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-9063) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-9068).
  - b. **SHALL** contain exactly one [1..1] **Problem Status** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.6) (CONF:1198-15591).

**Figure 199: Problem Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
    <!-- ** Problem Observation (V3) ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
    <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
    <code code="64572001" displayName="Condition"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT">
        <translation code="75323-6"
          codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC"
          displayName="Condition"/>
    </code>
    <!-- The statusCode reflects the status of the observation itself -->
    <statusCode code="completed" />
    <effectiveTime>
        <!-- The low value reflects the date of onset -->
        <!-- Based on patient symptoms, presumed onset is July 3, 2013 -->
        <low value="20130703" />
        <!-- The high value reflects when the problem was known to be resolved -->
        <!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->
        <high value="20080814" />
    </effectiveTime>
    <value xsi:type="CD"
          code="233604007"
          codeSystem="2.16.840.1.113883.6.96"
          displayName="Pneumonia" />
    <author typeCode="AUT">
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        <time value="200808141030-0800" />
        <assignedAuthor>
            <id extension="555555555" root="2.16.840.1.113883.4.6" />
            <code code="207QA0505X"
                  displayName="Adult Medicine"
                  codeSystem="2.16.840.1.113883.6.101"
                  codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />
        </assignedAuthor>
    </author>
</observation>
```

#### 4.79.1 Longitudinal Care Wound Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01 (open)]

**Table 423: Longitudinal Care Wound Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Physical Exam Section (V3)</a> (optional)	<a href="#">Highest Pressure Ulcer Stage</a> (optional) <a href="#">Wound Measurement Observation</a> (optional) <a href="#">Wound Characteristic</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Number of Pressure Ulcers Observation (V3)</a> (optional)

This template represents acquired or surgical wounds and is not intended to encompass all wound types. The template applies to wounds such as pressure ulcers, surgical incisions, and deep tissue injury wounds. Information in this template may include information about the wound measurements characteristics.

**Table 424: Longitudinal Care Wound Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-31012</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-31013</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-32947</a>	
@root	1..1	SHALL		<a href="#">1198-29474</a>	2.16.840.1.113883.10.20.22.4.1 14
@extension	1..1	SHALL		<a href="#">1198-32913</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-29476</a>	
@code	1..1	SHALL		<a href="#">1198-29477</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1198-31010</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">1198-29485</a>	urn:oid:2.16.840.1.113883.1.11. 20.2.6 (Wound Type)
targetSiteCode	0..1	SHOULD		<a href="#">1198-29488</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
qualifier	0..*	MAY		<a href="#">1198-29490</a>	
name	1..1	SHALL		<a href="#">1198-29491</a>	
@code	1..1	SHALL		<a href="#">1198-29492</a>	272741003
@codeSystem	1..1	SHALL		<a href="#">1198-31524</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
value	1..1	SHALL		<a href="#">1198-29493</a>	
@code	1..1	SHALL		<a href="#">1198-29494</a>	urn:oid:2.16.840.1.113883.11.2 0.9.37 (TargetSite Qualifiers )
author	0..*	SHOULD		<a href="#">1198-31542</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-29495</a>	
@typeCode	1..1	SHALL		<a href="#">1198-29496</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Wound Measurement</a>

				<a href="#">29497</a>	<a href="#">Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.133)</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-29503</a>	
@typeCode	1..1	SHALL		<a href="#">1198-29504</a>	COMP
observation	1..1	SHALL		<a href="#">1198-29505</a>	<a href="#">Wound Characteristic (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.134)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31890</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31891</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1198-31892</a>	<a href="#">Number of Pressure Ulcers Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.76:2015-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">1198-31893</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31894</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1198-31919</a>	<a href="#">Highest Pressure Ulcer Stage (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.77)</a>

1. Conforms to [Problem Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-31012).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1198-31013).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1198-32947) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.114" (CONF:1198-29474).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32913).
5. **SHALL** contain exactly one [1..1] code (CONF:1198-29476).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" assertion (CONF:1198-29477).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1198-31010).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Wound Type](#) urn:oid:2.16.840.1.113883.1.11.20.2.6 **DYNAMIC** (CONF:1198-29485).
7. **SHOULD** contain zero or one [0..1] **targetSiteCode**, which **SHOULD** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1198-29488) such that it

If targetSite/qualifierCode name/value pairs are used, care must be taken to avoid conflict with the SNOMED-CT body structure code used in observation/value. SNOMED-CT body structure codes are often pre-coordinated with laterality.

- a. **MAY** contain zero or more [0..\*] **qualifier** (CONF:1198-29490).
  - i. The qualifier, if present, **SHALL** contain exactly one [1..1] **name** (CONF:1198-29491).
    1. This name **SHALL** contain exactly one [1..1] @code="272741003" laterality (CONF:1198-29492).
    2. This name **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-31524).
  - ii. The qualifier, if present, **SHALL** contain exactly one [1..1] **value** (CONF:1198-29493).
    1. This value **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet [TargetSite Qualifiers](#) urn:oid:2.16.840.1.113883.11.20.9.37 **STATIC** (CONF:1198-29494).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31542).
9. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-29495) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-29496).
  - b. **SHALL** contain exactly one [1..1] [Wound Measurement Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.133) (CONF:1198-29497).
10. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-29503) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:1198-29504).
  - b. **SHALL** contain exactly one [1..1] [Wound Characteristic](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.134) (CONF:1198-29505).

When the wound observed is a type of pressure ulcer, then this template SHOULD contain an entry for the Number of Pressure Ulcers.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31890) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31891).
  - b. **SHALL** contain exactly one [1..1] [Number of Pressure Ulcers Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.76:2015-08-01) (CONF:1198-31892).

When the wound observed is a type of pressure ulcer, then this template SHOULD contain an entry for the Highest Pressure Ulcer Stage.

12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-31893) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31894).
  - b. **SHALL** contain exactly one [1..1] **Highest Pressure Ulcer Stage** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.77) (CONF:1198-31919).

**Table 425: Wound Type**

Value Set: Wound Type urn:oid:2.16.840.1.113883.1.11.20.2.6 A value set of SNOMED-CT high level wound codes terms commonly used in long term care.			
Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
420226006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure ulcer
46742003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Skin ulcer
262557004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Deep wound
283396008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Incised wound
416886008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Closed wound
125643001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Open wound
421076008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure ulcer stage 1
420324007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 2
421927004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 3
420597008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pressure Ulcer Stage 4
...			

**Figure 200: Longitudinal Care Wound Observation Example**

```
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Wound Observation template -->
    <templateId root="2.16.840.1.113883.10.20.22.4.114" extension="2015-08-01" />
    <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
    <statusCode code="completed" />
    <effectiveTime>
      <low value="20013103" />
    </effectiveTime>
    <value xsi:type="CD" code="425144005" codeSystem="2.16.840.1.113883.6.6"
displayName="Minor open wound" />
    <targetSiteCode code="182295001" codeSystem="2.16.840.1.113883.6.96"
displayName="anterior aspect of knee" />
    <author>
      ...
    </author>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Wound Measurements Observation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.133" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Wound Measurements Observation . -->
        <templateId root="2.16.840.1.113883.10.20.22.4.133" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Wound Characteristic -->
        <templateId root="2.16.840.1.113883.10.20.22.4.134" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Number of Pressure Ulcers -->
        <templateId root="2.16.840.1.113883.10.20.22.4.76" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
```

```

<!-- Highest Pressure Ulcers Stage -->
<templateId root="2.16.840.1.113883.10.20.22.4.77" />
...
</observation>
</entryRelationship>
</observation>
</entry>

```

## 4.80 Problem Status

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.6 (open) ]

**Table 426: Problem Status Contexts**

Contained By:	Contains:
<a href="#">Problem Observation (V3)</a> (optional)	

The Problem Status records whether the indicated problem is active, inactive, or resolved.

**Table 427: Problem Status Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.6)					
@classCode	1..1	SHALL		<a href="#">81-7357</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-7358</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-7359</a>	
@root	1..1	SHALL		<a href="#">81-10518</a>	2.16.840.1.113883.10.20.22.4.6
code	1..1	SHALL		<a href="#">81-19162</a>	
@code	1..1	SHALL		<a href="#">81-19163</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 33999-4
text	0..1	SHOULD		<a href="#">81-7362</a>	
reference	0..1	SHOULD		<a href="#">81-15593</a>	
@value	1..1	SHALL		<a href="#">81-15594</a>	
statusCode	1..1	SHALL		<a href="#">81-7364</a>	
@code	1..1	SHALL		<a href="#">81-19113</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-7365</a>	urn:oid:2.16.840.1.113883.3.88.12.80.68 (Problem Status)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-7357).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-7358).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7359) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.6"** (CONF:81-10518).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-19162).
  - a. This code **SHALL** contain exactly one [1..1] **@code="33999-4"** Status (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:81-19163).
5. **SHOULD** contain zero or one [0..1] **text** (CONF:81-7362).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:81-15593).
    - i. The reference, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:81-15594).

1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-15595).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-7364).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19113).
7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Problem Status](#) urn:oid:2.16.840.1.113883.3.88.12.80.68 **DYNAMIC** (CONF:81-7365).

**Figure 201: Problem Status Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Status observation template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.6"/>
  <code code="33999-4"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Status"/>
  <text>
    <reference value="#STAT1"/>
  </text>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="55561003"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Active"/>
</observation>

```

## 4.81 Procedure Activity Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09 (open)]

**Table 428: Procedure Activity Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Procedures Section (entries required) (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents any act that cannot be classified as an observation or procedure according to the HL7 RIM. Examples of these acts are a dressing change, teaching or feeding a patient, or providing comfort measures.

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

**Table 429: Procedure Activity Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8289</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-8290</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-8291</a>	
@root	1..1	SHALL		<a href="#">1098-10519</a>	2.16.840.1.113883.10.20.22.4.1 2
@extension	1..1	SHALL		<a href="#">1098-32505</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8292</a>	
code	1..1	SHALL		<a href="#">1098-8293</a>	
originalText	0..1	SHOULD		<a href="#">1098-19186</a>	
reference	0..1	MAY		<a href="#">1098-19187</a>	
@value	0..1	MAY		<a href="#">1098-19188</a>	
statusCode	1..1	SHALL		<a href="#">1098-8298</a>	
@code	1..1	SHALL		<a href="#">1098-32364</a>	urn:oid:2.16.840.1.113883.11.2 0.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1098-8299</a>	
priorityCode	0..1	MAY		<a href="#">1098-8300</a>	urn:oid:2.16.840.1.113883.1.11. 16866 (Act Priority)
performer	0..*	SHOULD		<a href="#">1098-8301</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-8302</a>	
id	1..*	SHALL		<a href="#">1098-8303</a>	
addr	1..*	SHALL		<a href="#">1098-8304</a>	
telecom	1..*	SHALL		<a href="#">1098-8305</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-8306</a>	
id	0..*	SHOULD		<a href="#">1098-8307</a>	

name	0..*	MAY		<a href="#">1098-8308</a>	
telecom	1..*	SHALL		<a href="#">1098-8310</a>	
addr	1..*	SHALL		<a href="#">1098-8309</a>	
author	1..*	SHOULD		<a href="#">1098-32477</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-8311</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8312</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-15599</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8314</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8315</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-8316</a>	true
encounter	1..1	SHALL		<a href="#">1098-8317</a>	
@classCode	1..1	SHALL		<a href="#">1098-8318</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8319</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">1098-8320</a>	
entryRelationship	0..1	MAY		<a href="#">1098-8322</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8323</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-8324</a>	true
act	1..1	SHALL		<a href="#">1098-31396</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8326</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8327</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.</a>

				<a href="#">15601</a>	<a href="#">20.22.4.19:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-8329</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8330</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15602</a>	<a href="#">Medication Activity (V2)</a> <a href="#">(identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.16:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8289).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8290).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8291) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.12"** (CONF:1098-10519).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32505).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8292).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-8293).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19186).
    - i. The originalText, if present, **MAY** contain zero or one [0..1] **reference** (CONF:1098-19187).
      1. The reference, if present, **MAY** contain zero or one [0..1] **@value** (CONF:1098-19188).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19189).
    - b. This @code **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19190).
  6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8298).
    - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32364).
  7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-8299).
  8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [Act Priority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-8300).
  9. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-8301).

- a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8302).
  - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-8303).
  - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8304).
  - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8305).
  - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-8306).
    - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-8307).
    - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-8308).
    - 3. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8310).
    - 4. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8309).
- 10. **SHOULD** contain at least one [1..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32477).
- 11. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-8311) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8312).
  - b. **SHALL** contain exactly one [1..1] **Service Delivery Location** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15599).
- 12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8314) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8315).
  - b. **SHALL** contain exactly one [1..1] @**inversionInd**="true" true (CONF:1098-8316).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-8317).
    - i. This encounter **SHALL** contain exactly one [1..1] @**classCode**="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8318).
    - ii. This encounter **SHALL** contain exactly one [1..1] @**moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8319).
    - iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-8320).
      - 1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16849).
- 13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-8322) such that it
  - a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8323).

- b. **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8324).
  - c. **SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31396).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8326) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8327).
  - b. **SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15601).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8329) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8330).
  - b. **SHALL** contain exactly one [1..1] Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15602).

**Table 430: ProcedureAct statusCode**

Value Set: ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 A ValueSet of HL7 actStatus codes for use with a procedure activity Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
completed	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	Completed
active	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	Active
aborted	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	Aborted
cancelled	HL7ActStatus	urn:oid:2.16.840.1.11388 3.5.14	Cancelled

**Figure 202: Procedure Activity Act Example**

```
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09" />
    <id root="1.2.3.4.5.6.7.8" extension="1234567" />
    <code code="274025005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Colonic polypectomy">
        <originalText>
            <reference value="#Proc1" />
        </originalText>
    </code>
    <statusCode code="completed" />
    <effectiveTime value="20110203" />
    <priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority"
displayName="Callback results" />
    <performer>
        <assignedEntity>
            <id root="2.16.840.1.113883.19" extension="1234" />
            <addr>
                <streetAddressLine>1001 Village Avenue</streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
            <telecom use="WP" value="tel: +1(555)-555-5000" />
            <representedOrganization>
                <id root="2.16.840.1.113883.19.5" />
                <name>Community Health and Hospitals</name>
                <telecom use="WP" value="tel:+1(555)-555-5000" />
                <addr>
                    <streetAddressLine>1001 Village Avenue</streetAddressLine>
                    <city>Portland</city>
                    <state>OR</state>
                    <postalCode>99123</postalCode>
                    <country>US</country>
                </addr>
            </representedOrganization>
        </assignedEntity>
    </performer>
    <participant typeCode="LOC">
        <participantRole classCode="SDLOC">
            <templateId root="2.16.840.1.113883.10.20.22.4.32" />
            . .
        </participantRole>
    </participant>
    <entryRelationship typeCode="RSON">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
            . .
        </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <act classCode="ACT" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
            . .
        </act>
    </entryRelationship>

```

```

</entryRelationship>
</act>

```

## 4.82 Procedure Activity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09  
 (open) ]

**Table 431: Procedure Activity Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Procedures Section (entries required) (V2)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

The common notion of procedure is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures that result in new information about the patient that cannot be classified as a procedure according to the HL7 RIM. Examples of these procedures are diagnostic imaging procedures, EEGs, and EKGs.

**Table 432: Procedure Activity Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8282</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-8237</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-8238</a>	
@root	1..1	SHALL		<a href="#">1098-10520</a>	2.16.840.1.113883.10.20.22.4.13
@extension	1..1	SHALL		<a href="#">1098-32507</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8239</a>	
code	1..1	SHALL		<a href="#">1098-19197</a>	
originalText	0..1	SHOULD		<a href="#">1098-19198</a>	
reference	0..1	SHOULD		<a href="#">1098-19199</a>	
@value	0..1	SHOULD		<a href="#">1098-19200</a>	
statusCode	1..1	SHALL		<a href="#">1098-8245</a>	
@code	1..1	SHALL		<a href="#">1098-32365</a>	urn:oid:2.16.840.1.113883.11.2 0.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		<a href="#">1098-8246</a>	
priorityCode	0..1	MAY		<a href="#">1098-8247</a>	urn:oid:2.16.840.1.113883.1.11. 16866 (Act Priority)
value	1..1	SHALL		<a href="#">1098-16846</a>	
@nullFlavor	0..1	MAY		<a href="#">1098-32778</a>	
methodCode	0..1	MAY		<a href="#">1098-8248</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-8250</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
performer	0..*	SHOULD		<a href="#">1098-8251</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-8252</a>	
id	1..*	SHALL		<a href="#">1098-8253</a>	

addr	1..*	SHALL		<a href="#">1098-8254</a>	
telecom	1..*	SHALL		<a href="#">1098-8255</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-8256</a>	
id	0..*	SHOULD		<a href="#">1098-8257</a>	
name	0..*	MAY		<a href="#">1098-8258</a>	
telecom	1..1	SHALL		<a href="#">1098-8260</a>	
addr	1..1	SHALL		<a href="#">1098-8259</a>	
author	1..*	SHOULD		<a href="#">1098-32478</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a>
participant	0..*	MAY		<a href="#">1098-8261</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8262</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-15904</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.32</a>
entryRelationship	0..*	MAY		<a href="#">1098-8264</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8265</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-8266</a>	true
encounter	1..1	SHALL		<a href="#">1098-8267</a>	
@classCode	1..1	SHALL		<a href="#">1098-8268</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8269</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">1098-8270</a>	
entryRelationship	0..1	MAY		<a href="#">1098-8272</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8273</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-8274</a>	true
act	1..1	SHALL		<a href="#">1098-</a>	<a href="#">Instruction (V2) (identifier:</a>

				<a href="#">31394</a>	<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-8276</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8277</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-15906</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8279</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8280</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15907</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32470</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32471</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32472</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8282).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8237).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8238) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.13"** (CONF:1098-10520).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32507).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8239).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19197).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19198).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19199).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19200).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach

defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19201).

- b. This @code **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19202).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8245).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#)  
urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32365).
- 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-8246).
- 8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [Act Priority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-8247).
- 9. **SHALL** contain exactly one [1..1] **value** (CONF:1098-16846).

If nothing is appropriate for value, use an appropriate nullFlavor.

- a. This value **MAY** contain zero or one [0..1] @nullFlavor (CONF:1098-32778).
- 10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-8248).
  - a. MethodCode **SHALL NOT** conflict with the method inherent in Observation / code (CONF:1098-8249).
- 11. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-8250).
- 12. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-8251).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8252).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-8253).
    - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8254).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8255).
    - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-8256).
      - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-8257).
      - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-8258).
      - 3. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **telecom** (CONF:1098-8260).
      - 4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:1098-8259).

13. **SHOULD** contain at least one [1..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32478).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-8261) such that it
- SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8262).
  - SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15904).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8264) such that it
- SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8265).
  - SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8266).
  - SHALL** contain exactly one [1..1] **encounter** (CONF:1098-8267).
    - This encounter **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8268).
    - This encounter **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8269).
    - This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-8270).
      - Set encounter/id to the id of an encounter in another section to signify they are the same encounter (CONF:1098-16847).
16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-8272) such that it
- SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8273).
  - SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8274).
  - SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31394).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8276) such that it
- SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8277).
  - SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15906).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8279) such that it
- SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8280).
  - SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15907).

19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32470) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32471).
  - b. **SHALL** contain exactly one [1..1] **Reaction Observation (v2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32472).

**Figure 203: Procedure Activity Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09" />
    <id extension="123456789" root="2.16.840.1.113883.19" />
    <code code="274025005"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Colonic polypectomy"
        codeSystemName="SNOMED-CT">
        <originalText>
            <reference value="#Proc1" />
        </originalText>
    </code>
    <statusCode code="aborted" />
    <effectiveTime value="20110203" />
    <priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority"
displayName="Callback results" />
    <value nullFlavor="NA" />
    <methodCode nullFlavor="UNK" />
    <targetSiteCode code="416949008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Abdomen and pelvis" />
    <performer>
        <assignedEntity>
            <id root="2.16.840.1.113883.19" extension="1234" />
            <addr>
                <streetAddressLine>1001 Village Avenue</streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
            <telecom use="WP" value="tel: +1(555)-555-5000" />
            <representedOrganization>
                <id root="2.16.840.1.113883.19.5" />
                <name>Community Health and Hospitals</name>
                <telecom use="WP" value="tel:+1(555)-555-5000" />
                <addr>
                    <streetAddressLine>1001 Village Avenue</streetAddressLine>
                    <city>Portland</city>
                    <state>OR</state>
                    <postalCode>99123</postalCode>
                    <country>US</country>
                </addr>
            </representedOrganization>
        </assignedEntity>
    </performer>
    <participant typeCode="LOC">
        <participantRole classCode="SDLOC">
            <templateId root="2.16.840.1.113883.10.20.22.4.32" />
            .
            .
            </participantRole>
        </participant>
        <entryRelationship typeCode="RSON">
            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
                .
                .
            </observation>
        </entryRelationship>
    </observation>
```

```

    </observation>
</entryRelationship>
<entryRelationship typeCode="SUBJ" inversionInd="true">
    <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
        . . .
    </act>
</entryRelationship>
</observation>

```

## 4.83 Procedure Activity Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09  
 (open) ]

**Table 433: Procedure Activity Procedure (V2) Contexts**

Contained By:	Contains:
<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Medical Equipment Section (V2)</a> (optional) <a href="#">Anesthesia Section (V2)</a> (optional) <a href="#">Procedures Section (entries optional) (V2)</a> (optional) <a href="#">Procedures Section (entries required) (V2)</a> (optional) <a href="#">Medical Equipment Organizer</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional) <a href="#">Product Instance</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient. Examples of these procedures are an appendectomy, hip replacement, and a creation of a gastrostomy.

This template can be used with a contained Product Instance template to represent a device in or on a patient. In this case, targetSiteCode is used to record the location of the device in or on the patient's body. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity (V2) template.

**Table 434: Procedure Activity Procedure (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7652</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">1098-7653</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7654</a>	
@root	1..1	SHALL		<a href="#">1098-10521</a>	2.16.840.1.113883.10.20.22.4.14
@extension	1..1	SHALL		<a href="#">1098-32506</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7655</a>	
code	1..1	SHALL		<a href="#">1098-7656</a>	
originalText	0..1	SHOULD		<a href="#">1098-19203</a>	
reference	0..1	SHOULD		<a href="#">1098-19204</a>	
@value	0..1	SHOULD		<a href="#">1098-19205</a>	
statusCode	1..1	SHALL		<a href="#">1098-7661</a>	
@code	1..1	SHALL		<a href="#">1098-32366</a>	urn:oid:2.16.840.1.113883.11.2 0.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		<a href="#">1098-7662</a>	
priorityCode	0..1	MAY		<a href="#">1098-7668</a>	urn:oid:2.16.840.1.113883.1.11. 16866 (Act Priority)
methodCode	0..1	MAY		<a href="#">1098-7670</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-7683</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.8.9 (Body Site)
specimen	0..*	MAY		<a href="#">1098-7697</a>	
specimenRole	1..1	SHALL		<a href="#">1098-7704</a>	
id	0..*	SHOULD		<a href="#">1098-7716</a>	
performer	0..*	SHOULD		<a href="#">1098-7718</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-7720</a>	

id	1..*	SHALL		<a href="#">1098-7722</a>	
addr	1..*	SHALL		<a href="#">1098-7731</a>	
telecom	1..*	SHALL		<a href="#">1098-7732</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-7733</a>	
id	0..*	SHOULD		<a href="#">1098-7734</a>	
name	0..*	MAY		<a href="#">1098-7735</a>	
telecom	1..1	SHALL		<a href="#">1098-7737</a>	
addr	1..1	SHALL		<a href="#">1098-7736</a>	
author	0..*	SHOULD		<a href="#">1098-32479</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-7751</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7752</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = DEV
participantRole	1..1	SHALL		<a href="#">1098-15911</a>	<a href="#">Product Instance (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.37)</a>
participant	0..*	MAY		<a href="#">1098-7765</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7766</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-15912</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7768</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7769</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-8009</a>	true
encounter	1..1	SHALL		<a href="#">1098-7770</a>	
@classCode	1..1	SHALL		<a href="#">1098-7771</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-7772</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN

id	1..1	SHALL		<a href="#">1098-7773</a>	
entryRelationship	0..1	MAY		<a href="#">1098-7775</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7776</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-7777</a>	true
act	1..1	SHALL		<a href="#">1098-31395</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.20:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-7779</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7780</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-15914</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.19:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-7886</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7887</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15915</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.16:2014-06-09</a>
entryRelationship	0..*	MAY		<a href="#">1098-32473</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32474</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32475</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.9:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="PROC"** Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7652).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7653).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7654) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.14"** (CONF:1098-10521).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32506).
4. **SHALL** contain at least one [..\*] **id** (CONF:1098-7655).

5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-7656).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19203).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19204).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19205).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19206).
    - b. This @code **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19207).
  6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7661).
    - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32366).
  7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7662).
  8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [Act Priority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-7668).
  9. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-7670).
    - a. MethodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:1098-7890).

In the case of an implanted medical device, targetSiteCode is used to record the location of the device, in or on the patient's body.

10. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-7683).
11. **MAY** contain zero or more [0..\*] **specimen** (CONF:1098-7697).
  - a. The specimen, if present, **SHALL** contain exactly one [1..1] **specimenRole** (CONF:1098-7704).
    - i. This specimenRole **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-7716).
      1. If you want to indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id **SHOULD** be set to equal an Organizer/specimen/ specimenRole/id (CONF:1098-29744).
    - b. This specimen is for representing specimens obtained from a procedure (CONF:1098-16842).
  12. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-7718) such that it
    - a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-7720).

- i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-7722).
  - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-7731).
  - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-7732).
  - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-7733).
    - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-7734).
    - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-7735).
    - 3. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **telecom** (CONF:1098-7737).
    - 4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:1098-7736).
13. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32479).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7751) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DEV" Device (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7752).
  - b. **SHALL** contain exactly one [1..1] **Product Instance** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-15911).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7765) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-7766).
  - b. **SHALL** contain exactly one [1..1] **Service Delivery Location** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15912).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7768) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7769).
  - b. **SHALL** contain exactly one [1..1] @**inversionInd**="true" true (CONF:1098-8009).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-7770).
    - i. This encounter **SHALL** contain exactly one [1..1] @**classCode**="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7771).
    - ii. This encounter **SHALL** contain exactly one [1..1] @**moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7772).
    - iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-7773).
      - 1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16843).

17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7775) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7776).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-7777).
  - c. **SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31395).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7779) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7780).
  - b. **SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15914).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7886) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7887).
  - b. **SHALL** contain exactly one [1..1] Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15915).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32473) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32474).
  - b. **SHALL** contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32475).

**Figure 204: Procedure Activity Procedure (V2) Example**

```
<procedure classCode="PROC" moodCode="EVN">
    <!-- Procedure Activity Procedure V2-->
    <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
    <id root="d5b614bd-01ce-410d-8726-e1fd01dcc72a" />
    <code code="103716009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Stent Placement">
        <originalText>
            <reference value="#Procl" />
        </originalText>
    </code>
    <statusCode code="completed" />
    <effectiveTime value="20130512" />
    <targetSiteCode code="28273000" displayName="bile duct"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
    <specimen typeCode="SPC">
        <specimenRole classCode="SPEC">
            <id root="a6d7b927-2b70-43c7-bdf3-0e7c4133062c" />
            <specimenPlayingEntity>
                <code code="57259009" codeSystem="2.16.840.1.113883.6.96"
displayName="gallbladder bile" />
            </specimenPlayingEntity>
        </specimenRole>
    </specimen>
    <performer>
        ...
    </performer>
</procedure>
```

## 4.84 Procedure Context

[act: identifier urn:oid:2.16.840.1.113883.10.20.6.2.5 (open)]

**Table 435: Procedure Context Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	

The ServiceEvent Procedure Context of the document header may be overridden in the CDA structured body if there is a need to refer to multiple imaging procedures or acts. The selection of the Procedure or Act entry from the clinical statement choice box depends on the nature of the imaging service that has been performed. The Procedure entry shall be used for image-guided interventions and minimally invasive imaging services, whereas the Act entry shall be used for diagnostic imaging services.

**Table 436: Procedure Context Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.5)					
@classCode	1..1	SHALL		<a href="#">81-26452</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-26453</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9200</a>	
@root	1..1	SHALL		<a href="#">81-10530</a>	2.16.840.1.113883.10.20.6.2.5
code	1..1	SHALL		<a href="#">81-9201</a>	
effectiveTime	0..1	SHOULD	TS	<a href="#">81-9203</a>	
@value	1..1	SHALL		<a href="#">81-17173</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:81-26452).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:81-26453).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9200) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.6.2.5"** (CONF:81-10530).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9201).
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9203).
  - a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:81-17173).
6. Procedure Context **SHALL** be represented with the procedure or act elements depending on the nature of the procedure (CONF:81-9199).

**Figure 205: Procedure Context Example**

```
<act moodCode="EVN" classCode="ACT">
  <templateId root="2.16.840.1.113883.10.20.6.2.5"/>
  <code code="70548"
    displayName="Magnetic resonance angiography, head; with contrast material(s)"
    codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"/>
  <!-- Note: This code is slightly different from the code used in the header
        documentationOf and overrides it, which is what this entry is for. -->
  <effectiveTime value="20060823123529+0400"/>
</act>
```

## 4.85 Product Instance

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.37 (open) ]

**Table 437: Product Instance Contexts**

Contained By:	Contains:
<a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Non-Medicinal Supply Activity (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional)	

This clinical statement represents a particular device that was placed in a patient or used as part of a procedure or other act. This provides a record of the identifier and other details about the given product that was used. For example, it is important to have a record that indicates not just that a hip prostheses was placed in a patient but that it was a particular hip prostheses number with a unique identifier.

The FDA Amendments Act specifies the creation of a Unique Device Identification (UDI) System that requires the label of devices to bear a unique identifier that will standardize device identification and identify the device through distribution and use.

The FDA permits an issuing agency to designate that their Device Identifier (DI) + Production Identifier (PI) format qualifies as a UDI through a process of accreditation. Currently, there are three FDA-accredited issuing agencies that are allowed to call their format a UDI. These organizations are GS1, HIBCC, and ICCBBA. For additional information on technical formats that qualify as UDI from each of the issuing agencies see the UDI Appendix.

When communicating only the issuing agency device identifier (i.e., subcomponent of the UDI), the use of the issuing agency OID is appropriate. However, when communicating the unique device identifier (DI + PI), the FDA OID (2.16.840.1.113883.3.3719) must be used.

When sending a UDI, populate the participantRole/id/@root with the FDA OID (2.16.840.1.113883.3.3719) and participantRole/id/@extension with the UDI.

When sending a DI, populate the participantRole/id/@root with the appropriate assigning agency OID and participantRole/id/@extension with the DI.

The scopingEntity/id should correspond to FDA or the appropriate issuing agency.

**Table 438: Product Instance Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37)					
@classCode	1..1	SHALL		<a href="#">81-7900</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">81-7901</a>	
@root	1..1	SHALL		<a href="#">81-10522</a>	2.16.840.1.113883.10.20.22.4.37
id	1..*	SHALL		<a href="#">81-7902</a>	
playingDevice	1..1	SHALL		<a href="#">81-7903</a>	
code	0..1	SHOULD		<a href="#">81-16837</a>	
scopingEntity	1..1	SHALL		<a href="#">81-7905</a>	
id	1..*	SHALL		<a href="#">81-7908</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:81-7900).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7901) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.37"** (CONF:81-10522).
3. **SHALL** contain at least one [1..\*] **id** (CONF:81-7902).
4. **SHALL** contain exactly one [1..1] **playingDevice** (CONF:81-7903).
  - a. This playingDevice **SHOULD** contain zero or one [0..1] **code** (CONF:81-16837).
5. **SHALL** contain exactly one [1..1] **scopingEntity** (CONF:81-7905).
  - a. This scopingEntity **SHALL** contain at least one [1..\*] **id** (CONF:81-7908).

**Figure 206: Product Instance Example**

```
<participantRole classCode="MANU">
  <templateId root="2.16.840.1.113883.10.20.22.4.37"/>
  <id root="2.16.840.1.113883.3.3719"
    extension="(01)51022222233336(11)141231(17)150707(10)A213B1(21)1234"
    assigningAuthorityName="FDA"/>
  <playingDevice>
    <code code="90412006" codeSystem="2.16.840.1.113883.6.96"
      displayName="Colonoscope"/>
  </playingDevice>
  <scopingEntity>
    <id root="2.16.840.1.113883.3.3719"/>
  </scopingEntity>
</participantRole>
```

## 4.86 Prognosis Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.113 (open) ]

**Table 439: Prognosis Observation Contexts**

Contained By:	Contains:
<a href="#">Problem Observation (V3)</a> (optional)	

This template represents the patient's prognosis, which must be associated with a problem observation. It may serve as an alert to scope intervention plans.

The effectiveTime represents the clinically relevant time of the observation. The observation/value is not constrained and can represent the expected life duration in PQ, an anticipated course of the disease in text, or coded term.

**Table 440: Prognosis Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113)					
@classCode	1..1	SHALL		<a href="#">1098-29035</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-29036</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-29037</a>	
@root	1..1	SHALL		<a href="#">1098-29038</a>	2.16.840.1.113883.10.20.22.4.13
code	1..1	SHALL		<a href="#">1098-29039</a>	
@code	1..1	SHALL		<a href="#">1098-29468</a>	75328-5
@codeSystem	1..1	SHALL		<a href="#">1098-31349</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-31350</a>	
@code	1..1	SHALL		<a href="#">1098-31351</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31123</a>	
value	1..1	SHALL		<a href="#">1098-29469</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-29035).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-29036).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29037) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.113" (CONF:1098-29038).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29039).
  - a. This code **SHALL** contain exactly one [1..1] @code="75328-5" Prognosis (CONF:1098-29468).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31349).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31350).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31351).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31123).
7. **SHALL** contain exactly one [1..1] **value** (CONF:1098-29469).

**Figure 207: Prognosis, Free Text Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Prognosis -->
  <templateId root="2.16.840.1.113883.10.20.22.4.113" />
  <id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />
  <code code="75328-5"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Prognosis" />
  <text>
    Presence of a life limiting condition(>50% possibility of death within 2 year)
  </text>
  <statusCode code="completed" />
  <effectiveTime value="20130606" />
  <value xsi:type="ST">Presence of a life limiting condition(>50% possibility of death
within 2 year</value>
</observation>
```

**Figure 208: Prognosis, Coded Example**

```
<entryRelationship typeCode="REFR">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Prognosis -->
    <templateId root="2.16.840.1.113883.10.20.22.4.113" />
    <id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />
    <code code="75328-5"
      codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      displayName="Prognosis" />
    <statusCode code="completed" />
    <effectiveTime>
      <low value="20130301" />
    </effectiveTime>
    <value xsi:type="CD" code="67334001" codeSystem="2.16.840.1.113883.6.96"
      displayName="guarded prognosis" codeSystemName="SNOMED CT" />
  </observation>
</entryRelationship>
```

## 4.87 Progress Toward Goal Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.110 (open) ]

**Table 441: Progress Toward Goal Observation Contexts**

Contained By:	Contains:
<a href="#">Outcome Observation</a> (optional)	

This template represents a patient's progress toward a goal. It can describe whether a goal has been achieved or not and can also describe movement a patient is making toward the achievement of a goal (e.g., "Goal not achieved - no discernible change", "Goal not achieved - progressing toward goal", "Goal not achieved - declining from goal").

In the Care Planning workflow, the judgment about how well the person is progressing towards the goal is based on the observations made about the status of the patient with respect to interventions performed in the pursuit of achieving that goal.

For example, an observation outcome of a blood oxygen saturation level of 95% is related to the goal of "Maintain Pulse Ox greater than 92" and in this case the Progress Toward Goal Observation template would record that the related goal has been achieved.

**Table 442: Progress Toward Goal Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.110)					
@classCode	1..1	SHALL		<a href="#">1098-31418</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-31419</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31420</a>	
@root	1..1	SHALL		<a href="#">1098-31421</a>	2.16.840.1.113883.10.20.22.4.1 10
id	1..*	SHALL		<a href="#">1098-31422</a>	
code	1..1	SHALL		<a href="#">1098-31423</a>	
@code	1..1	SHALL		<a href="#">1098-31424</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-31425</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-31609</a>	
@code	1..1	SHALL		<a href="#">1098-31610</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1098-31426</a>	urn:oid:2.16.840.1.113883.11.2 0.9.55 (Goal Achievement)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31418).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31419).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31420) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.110"** (CONF:1098-31421).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31422).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31423).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1098-31424).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31425).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31609).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31610).

7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Goal Achievement** urn:oid:2.16.840.1.113883.11.20.9.55 **DYNAMIC** (CONF:1098-31426).

**Table 443: Goal Achievement**

Value Set: Goal Achievement urn:oid:2.16.840.1.113883.11.20.9.55 The Goal Achievement value set contains concepts that describe a patient's progression (or lack thereof) toward a goal and consists of the following codes from the US Extension of SNOMED CT.			
390802008 Goal achieved 390801001 Goal not achieved and all its direct children			
Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
390802008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Goal achieved
390801001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Goal not achieved
706905005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Goal not attainable
706906006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	No progress toward goal

**Figure 209: Progress Toward Goal Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.110" />
  <id root="2afcf057-aae4-47cf-b7498e300424" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <value xsi:type="CD" code="390802008" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Goal achieved" />
</observation>
```

## 4.88 Purpose of Reference Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.9 (open)]

**Table 444: Purpose of Reference Observation Contexts**

Contained By:	Contains:
<a href="#">SOP Instance Observation</a> (optional)	

A Purpose of Reference Observation describes the purpose of the DICOM composite object reference. Appropriate codes, such as externally defined DICOM codes, may be used to specify the semantics of the purpose of reference. When this observation is absent, it implies that the reason for the reference is unknown.

**Table 445: Purpose of Reference Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.9)					
@classCode	1..1	SHALL		<a href="#">81-9264</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-9265</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9266</a>	
@root	1..1	SHALL		<a href="#">81-10531</a>	2.16.840.1.113883.10.20.6.2.9
code	1..1	SHALL		<a href="#">81-9267</a>	
@code	0..1	SHOULD		<a href="#">81-19208</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ASSERTION
value	0..1	SHOULD	CD	<a href="#">81-9273</a>	urn:oid:2.16.840.1.113883.11.2 0.9.28 (DICOMPurposeOfReference)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9264).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9265).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9266) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.6.2.9"** (CONF:81-10531).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9267).
  - a. This code **SHOULD** contain zero or one [0..1] **@code="ASSERTION"** Assertion (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:81-19208).
  - b. For backwards compatibility with the DICOM CMET, the code **MAY** be drawn from ValueSet 2.16.840.1.113883.11.20.9.28 DICOMPurposeOfReference DYNAMIC (CONF:81-19209).

The value element is a SHOULD to allow backwards compatibility with the DICOM CMET. Note that the use of ASSERTION for the code differs from the DICOM CMET. This is intentional. The DICOM CMET was created before the Term Info guidelines describing the use of the assertion pattern were released. It was determined that this IG should follow the latest Term Info guidelines. Implementers using both this IG and the DICOM CMET should be aware of this difference and apply appropriate transformations.

5. **SHOULD** contain zero or one [0..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [DICOMPurposeOfReference](#) urn:oid:2.16.840.1.113883.11.20.9.28 **DYNAMIC** (CONF:81-9273).

**Table 446: DICOPurposeOfReference**

Value Set: DICOPurposeOfReference urn:oid:2.16.840.1.113883.11.20.9.28 Value Set Source: <a href="http://www.hl7.org">http://www.hl7.org</a>			
Code	Code System	Code System OID	Print Name
121079	DCM	urn:oid:1.2.840.10008.2.16.4	Baseline
121080	DCM	urn:oid:1.2.840.10008.2.16.4	Best illustration of finding
121112	DCM	urn:oid:1.2.840.10008.2.16.4	Source of Measurement

**Figure 210: Purpose of Reference Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
    <value xsi:type="CD" code="121112" codeSystem="1.2.840.10008.2.16.4"
        codeSystemName="DCM"
        displayName="Source of Measurement"/>
</observation>
```

## 4.89 Quantity Measurement Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.14 (open) ]

**Table 447: Quantity Measurement Observation Contexts**

Contained By:	Contains:
<a href="#">Text Observation</a> (optional) <a href="#">Code Observations</a> (optional) <a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">SOP Instance Observation</a> (optional)

A Quantity Measurement Observation records quantity measurements based on image data such as linear, area, volume, and numeric measurements. The codes in DIRQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.29) are from the qualifier hierarchy of SNOMED CT and are not valid for observation/code according to the Term Info guidelines. These codes can be used for backwards compatibility, but going forward, codes from the observable entity hierarchy will be requested and used.

**Table 448: Quantity Measurement Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.14)					
@classCode	1..1	SHALL		<a href="#">81-9317</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-9318</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9319</a>	
@root	1..1	SHALL		<a href="#">81-10532</a>	2.16.840.1.113883.10.20.6.2.14
code	1..1	SHALL		<a href="#">81-9320</a>	
@code	0..1	SHOULD		<a href="#">81-19210</a>	urn:oid:2.16.840.1.113883.11.2 0.9.29 (DIRQuantityMeasurementType Codes)
effectiveTime	0..1	SHOULD		<a href="#">81-9326</a>	
value	1..1	SHALL	PQ	<a href="#">81-9324</a>	
entryRelationship	0..*	MAY		<a href="#">81-9327</a>	
@typeCode	1..1	SHALL		<a href="#">81-9328</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">81-15916</a>	<a href="#">SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.8)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9317).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9318).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-9319) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.14" (CONF:81-10532).

The value set of the observation/code includes numeric measurement types for linear dimensions, areas, volumes, and other numeric measurements. This value set is extensible and comprises the union of SNOMED codes for observable entities as reproduced in DIRQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.29) and DICOM Codes in DICOMQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.30).

4. **SHALL** contain exactly one [1..1] code (CONF:81-9320).

- a. This code **SHOULD** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [DIRQuantityMeasurementTypeCodes](#)  
urn:oid:2.16.840.1.113883.11.20.9.29 **DYNAMIC** (CONF:81-19210).
- 5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9326).
- 6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:81-9324).
- 7. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9327) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9328).
  - b. **SHALL** contain exactly one [1..1] [SOP Instance Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:81-15916).

**Table 449: DIRQuantityMeasurementTypeCodes**

Value Set: DIRQuantityMeasurementTypeCodes urn:oid:2.16.840.1.113883.11.20.9.29 These codes are used for the DIR quantity measurement observation. They are from SNOMED CT ( <a href="http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html">http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html</a> ) Value Set Source: <a href="http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html">http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html</a>			
Code	Code System	Code System OID	Print Name
439932008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Length of structure
440357003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Width of structure
439934009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Depth of structure
439984002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Diameter of structure
439933003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Long axis length of structure
439428006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Short axis length of structure
439982003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Major axis length of structure
439983008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Minor axis length of structure
440356007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Perpendicular axis length of structure
439429003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Radius of structure
...			

**Figure 211: Quantity Measurement Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.14"/>
  <code code="439984002" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNM3"
    displayName="Diameter of structure">
    <originalText>
      <reference value="#Diam2"/>
    </originalText>
  </code>
  <statusCode code="completed"/>
  <effectiveTime value="200802260805-0800"/>
  <value xsi:type="PQ" value="45" unit="mm"
    codeSystemVersion="1.5"/>
  <!-- entryRelationships to SOP Instance Observations may go here -->
</observation>
```

## 4.90 Reaction Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09  
(open)]

**Table 450: Reaction Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional)

This clinical statement represents the response to an undesired symptom, finding, etc. due to administered or exposed substance. A reaction can be defined described with respect to its severity, and can have been treated by one or more interventions.

**Table 451: Reaction Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7325</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7326</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7323</a>	
@root	1..1	SHALL		<a href="#">1098-10523</a>	2.16.840.1.113883.10.20.22.4.9
@extension	1..1	SHALL		<a href="#">1098-32504</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7329</a>	
code	1..1	SHALL		<a href="#">1098-16851</a>	
@code	1..1	SHALL		<a href="#">1098-31124</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32169</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-7328</a>	
@code	1..1	SHALL		<a href="#">1098-19114</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-7332</a>	
low	0..1	SHOULD		<a href="#">1098-7333</a>	
high	0..1	SHOULD		<a href="#">1098-7334</a>	
value	1..1	SHALL	CD	<a href="#">1098-7335</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.7.4 (Problem)
entryRelationship	0..*	MAY		<a href="#">1098-7337</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7338</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
@inversionInd	1..1	SHALL		<a href="#">1098-7343</a>	true
procedure	1..1	SHALL		<a href="#">1098-15920</a>	<a href="#">Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-</a>	

				<a href="#">7340</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7341</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
@inversionInd	1..1	SHALL		<a href="#">1098-7344</a>	true
substanceAdministration	1..1	SHALL		<a href="#">1098-15921</a>	<a href="#">Medication Activity (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09</a>
entryRelationship	0..1	MAY		<a href="#">1098-7580</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7581</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-10375</a>	true
observation	1..1	SHALL		<a href="#">1098-15922</a>	<a href="#">Severity Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7325).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7326).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7323) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.9"** (CONF:1098-10523).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32504).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7329).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-16851).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:1098-31124).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32169).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7328).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19114).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7332).
  - a. The effectiveTime, if present, **SHOULD** contain zero or one [0..1] **low** (CONF:1098-7333).
  - b. The effectiveTime, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:1098-7334).

8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7335).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7337) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7338).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7343).

This procedure activity is intended to contain information about procedures that were performed in response to an allergy reaction.

- c. **SHALL** contain exactly one [1..1] [Procedure Activity Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-15920).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7340) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7341).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7344).

This medication activity is intended to contain information about medications that were administered in response to an allergy reaction.

- c. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15921).
11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7580) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7581).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" TRUE (CONF:1098-10375).
  - c. **SHALL** contain exactly one [1..1] [Severity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-15922).

**Figure 212: Reaction Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09" />
    <id root="4adc1020-7b14-11db-9fe1-0800200c9a64" />
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
    <text>
        <reference value="#reaction1" />
    </text>
    <statusCode code="completed" />
    <effectiveTime>
        <low value="200802260805-0800" />
        <high value="200802281205-0800" />
    </effectiveTime>
    <value xsi:type="CD" code="422587007" codeSystem="2.16.840.1.113883.6.96"
displayName="Nausea" />
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />
            . . .
        </observation>
    </entryRelationship>
</observation>
```

## 4.91 Referenced Frames Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.10 (open) ]

**Table 452: Referenced Frames Observation Contexts**

Contained By:	Contains:
<a href="#">SOP Instance Observation</a> (optional)	<a href="#">Boundary Observation</a> (required)

A Referenced Frames Observation is used if the referenced DICOM SOP instance is a multiframe image and the reference does not apply to all frames. The list of integer values for the referenced frames of a DICOM multiframe image SOP instance is contained in a Boundary Observation nested inside this class.

**Table 453: Referenced Frames Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.10)					
@classCode	1..1	SHALL		<a href="#">81-9276</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ROIBND
@moodCode	1..1	SHALL		<a href="#">81-9277</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
code	1..1	SHALL		<a href="#">81-19164</a>	
@code	0..1	MAY		<a href="#">81-19165</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 121190
entryRelationship	1..1	SHALL		<a href="#">81-9279</a>	
@typeCode	1..1	SHALL		<a href="#">81-9280</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">81-15923</a>	<a href="#">Boundary Observation</a> (identifier: urn:oid:2.16.840.1.113883.10.2.11)

1. **SHALL** contain exactly one [1..1] **@classCode="ROIBND"** Bounded Region of Interest (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9276).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9277).
3. **SHALL** contain exactly one [1..1] **code** (CONF:81-19164).
  - a. This code **MAY** contain zero or one [0..1] **@code="121190"** Referenced Frames (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4 **STATIC**) (CONF:81-19165).
4. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:81-9279).
  - a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9280).
  - b. This entryRelationship **SHALL** contain exactly one [1..1] [Boundary Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.11) (CONF:81-15923).

**Figure 213: Referenced Frames Observation Example**

```
<observation classCode="ROIBND" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.10"/>
  <code code="121190" codeSystem="1.2.840.10008.2.16.4" displayName="Referenced Frames"/>
  <entryRelationship typeCode="COMP">
    <!-- Boundary Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.11"/>
      <code code="113036" codeSystem="1.2.840.10008.2.16.4" displayName="Frames for
Display"/>
      <value xsi:type="INT" value="1"/>
    </observation>
  </entryRelationship>
</observation>
```

## 4.92 Result Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01  
(open)]

**Table 454: Result Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)
<a href="#">Result Organizer (V3)</a> (required)	
<a href="#">Risk Concern Act (V2)</a> (optional)	

This template represents the results of a laboratory, radiology, or other study performed on a patient.

The result observation includes a statusCode to allow recording the status of an observation. “Pending” results (e.g., a test has been run but results have not been reported yet) should be represented as “active” ActStatus.

**Table 455: Result Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7130</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-7131</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7136</a>	
@root	1..1	SHALL		<a href="#">1198-9138</a>	2.16.840.1.113883.10.20.22.4.2
@extension	1..1	SHALL		<a href="#">1198-32575</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-7137</a>	
code	1..1	SHALL		<a href="#">1198-7133</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1198-7134</a>	
@code	1..1	SHALL		<a href="#">1198-14849</a>	urn:oid:2.16.840.1.113883.11.2 0.9.39 (Result Status)
effectiveTime	1..1	SHALL		<a href="#">1198-7140</a>	
value	1..1	SHALL		<a href="#">1198-7143</a>	
interpretationCode	0..*	SHOULD		<a href="#">1198-7147</a>	
@code	1..1	SHALL		<a href="#">1198-32476</a>	urn:oid:2.16.840.1.113883.1.11.78 (Observation Interpretation (HL7))
methodCode	0..1	MAY	SET<C E>	<a href="#">1198-7148</a>	
targetSiteCode	0..1	MAY	SET<C D>	<a href="#">1198-7153</a>	
author	0..*	SHOULD		<a href="#">1198-7149</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
referenceRange	0..*	SHOULD		<a href="#">1198-7150</a>	
observationRange	1..1	SHALL		<a href="#">1198-7151</a>	
code	0..0	SHALL NOT		<a href="#">1198-7152</a>	
value	1..1	SHALL		<a href="#">1198-32175</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7130).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7131).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7136) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1198-9138).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32575).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-7137).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-7133).
  - a. This code **SHOULD** be a code from the LOINC that identifies the result observation. If an appropriate LOINC code does not exist, then the local code for this result **SHALL** be sent (CONF:1198-19212).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7134).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [Result Status](#) urn:oid:2.16.840.1.113883.11.20.9.39 **STATIC** (CONF:1198-14849).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-7140).
 

Note: Represents the biologically relevant time of the measurement (e.g., the time a blood pressure reading is obtained, the time the blood sample was obtained for a chemistry test).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1198-7143).
  - a. If Observation/value is a physical quantity (**xsi:type**="PQ"), the unit of measure **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-31484).
  - b. A coded or physical quantity value **MAY** contain zero or more [0..\*] translations, which can be used to represent the original results as output by the lab (CONF:1198-31866).
  - c. If Observation/value is a CD (**xsi:type**="CD") the value **SHOULD** be SNOMED-CT (CONF:1198-32610).
9. **SHOULD** contain zero or more [0..\*] **interpretationCode** (CONF:1198-7147).
  - a. The interpretationCode, if present, **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [Observation Interpretation \(HL7\)](#) urn:oid:2.16.840.1.113883.1.11.78 **DYNAMIC** (CONF:1198-32476).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1198-7148).
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:1198-7153).
12. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-7149).
13. **SHOULD** contain zero or more [0..\*] **referenceRange** (CONF:1198-7150).
  - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:1198-7151).
    - i. This observationRange **SHALL NOT** contain [0..0] **code** (CONF:1198-7152).

- ii. This observationRange **SHALL** contain exactly one [1..1] **value** (CONF:1198-32175).

**Table 456: Observation Interpretation (HL7)**

Value Set: Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
A	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	abnormal
B	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	better
Carrier	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	carrier
D	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	decreased
HX	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	above high threshold
I	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	intermediate
IND	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	indeterminate
LX	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	below low threshold
MS	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	moderately susceptible
N	HITSP-CS-83	urn:oid:2.16.840.1.11388 3.5.83	normal
...			

**Figure 214: Result Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />
    <id root="7c0704bb-9c40-41b5-9c7d-26b2d59e234f" />
    <code code="20570-8" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" />
    <statusCode code="completed" />
    <effectiveTime value="200803190830-0800" />
    <value xsi:type="PQ" value="35.3" unit="%" />
    <interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83" />
    <author>
        <time value="200803190830-0800" />
        <assignedAuthor>
            <id extension="333444444" root="1.1.1.1.1.1.4" />
            <addr>
                <streetAddressLine>1017 Health Drive</streetAddressLine>
                <city>Portland</city>
                <state>OR</state>
                <postalCode>99123</postalCode>
                <country>US</country>
            </addr>
            <telecom use="WP" value="tel:+1 (555) 555-1017" />
            <assignedPerson>
                <name>
                    <given>William</given>
                    <given qualifier="CL">Bill</given>
                    <family>Beaker</family>
                </name>
            </assignedPerson>
            <representedOrganization>
                <name>Good Health Laboratory</name>
            </representedOrganization>
        </assignedAuthor>
    </author>
    <referenceRange>
        <observationRange>
            <text>Low</text>
            <value xsi:type="IVL_PQ">
                <low value="34.9" unit="%" />
                <high value="44.5" unit="%" />
            </value>
            <interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83"/>
        </observationRange>
    </referenceRange>
</observation>
```

## 4.93 Result Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01  
(open)]

**Table 457: Result Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Results Section (entries optional) (V3)</a> (optional) <a href="#">Results Section (entries required) (V3)</a> (required) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional) <a href="#">Result Observation (V3)</a> (required)

This template provides a mechanism for grouping result observations. It contains information applicable to all of the contained result observations. The Result Organizer code categorizes the contained results into one of several commonly accepted values (e.g., “Hematology”, “Chemistry”, “Nuclear Medicine”).

If any Result Observation within the organizer has a statusCode of “active”, the Result Organizer must also have a statusCode of “active”.

**Table 458: Result Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7121</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
@moodCode	1..1	SHALL		<a href="#">1198-7122</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7126</a>	
@root	1..1	SHALL		<a href="#">1198-9134</a>	2.16.840.1.113883.10.20.22.4.1
@extension	1..1	SHALL		<a href="#">1198-32588</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-7127</a>	
code	1..1	SHALL		<a href="#">1198-7128</a>	
statusCode	1..1	SHALL		<a href="#">1198-7123</a>	
@code	1..1	SHALL		<a href="#">1198-14848</a>	urn:oid:2.16.840.1.113883.11.2 0.9.39 (Result Status)
effectiveTime	0..1	MAY		<a href="#">1198-31865</a>	
low	1..1	SHALL		<a href="#">1198-32488</a>	
high	1..1	SHALL		<a href="#">1198-32489</a>	
author	0..*	SHOULD		<a href="#">1198-31149</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
component	1..*	SHALL		<a href="#">1198-7124</a>	
observation	1..1	SHALL		<a href="#">1198-14850</a>	<a href="#">Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7121).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7122).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1198-7126) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:1198-9134).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32588).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-7127).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-7128).
  - a. **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) **OR** SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12) (CONF:1198-19218).
  - b. Laboratory results **SHOULD** be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or other constrained terminology named by the US Department of Health and Human Services Office of National Coordinator or other federal agency (CONF:1198-19219).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7123).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Result Status](#) urn:oid:2.16.840.1.113883.11.20.9.39 **STATIC** (CONF:1198-14848).
7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1198-31865).

Note: The effectiveTime is an interval that spans the effectiveTimes of the contained result observations. Because all contained result observations have a required time stamp, it is not required that this effectiveTime be populated.

  - a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **low** (CONF:1198-32488).
  - b. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **high** (CONF:1198-32489).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31149).
9. **SHALL** contain at least one [1..\*] **component** (CONF:1198-7124) such that it
  - a. **SHALL** contain exactly one [1..1] [Result Observation \(v3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:1198-14850).

**Figure 215: Result Organizer (V3) Example**

```
<organizer classCode="BATTERY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.1" extension="2015-08-01" />
    <id root="7d5a02b0-67a4-11db-bd13-0800200c9a66" />
    <code code="57021-8" displayName="CBC W Auto Differential panel in Blood"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
    <statusCode code="completed" />
    <effectiveTime>
        <low value="200803190830-0800" />
        <high value="200803190830-0800" />
    </effectiveTime>
    <author>
        . . .
    </author>
    <component>
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Result observation ** -->
            <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />
            . . .

        </observation>
    </component>
</organizer>
```

## 4.94 Risk Concern Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.136:2015-08-01  
(open)]

**Table 459: Risk Concern Act (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concerns Section (V2)</a> (optional)	<a href="#">Pregnancy Observation</a> (optional) <a href="#">Caregiver Characteristics</a> (optional) <a href="#">Assessment Scale Observation</a> (optional) <a href="#">Characteristics of Home Environment</a> (optional) <a href="#">Cultural and Religious Observation</a> (optional) <a href="#">Sensory Status</a> (optional) <a href="#">Self-Care Activities (ADL and IADL)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Nutritional Status Observation</a> (optional) <a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Nutrition Assessment</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Smoking Status - Meaningful Use (V2)</a> (optional) <a href="#">Vital Sign Observation (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Tobacco Use (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional) <a href="#">Result Observation (V3)</a> (optional) <a href="#">Mental Status Observation (V3)</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Social History Observation (V3)</a> (optional) <a href="#">Result Organizer (V3)</a> (optional) <a href="#">Encounter Diagnosis (V3)</a> (optional) <a href="#">Family History Organizer (V3)</a> (optional) <a href="#">Hospital Admission Diagnosis (V3)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional) <a href="#">Preoperative Diagnosis (V3)</a> (optional) <a href="#">Postprocedure Diagnosis (V3)</a> (optional) <a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)

This template represents a risk concern.

It is a wrapper for a single risk concern which may be derived from a variety of sources within an EHR (such as Problem List, Family History, Social History, Social Worker Note, etc.).

A Risk Concern Act represents a health concern that is a risk. A risk is a clinical or socioeconomic condition that the patient does not currently have, but the probability of

developing that condition rises to the level of concern such that an intervention and/or monitoring is needed.

**Table 460: Risk Concern Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.136:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-32220</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-32221</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-32180</a>	
@root	1..1	SHALL		<a href="#">1198-32222</a>	2.16.840.1.113883.10.20.22.4.1 36
@extension	1..1	SHALL		<a href="#">1198-32910</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-32223</a>	
code	1..1	SHALL		<a href="#">1198-32305</a>	
@code	1..1	SHALL		<a href="#">1198-32306</a>	281694009
@codeSystem	1..1	SHALL		<a href="#">1198-32307</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1198-32225</a>	
@code	1..1	SHALL		<a href="#">1198-32314</a>	urn:oid:2.16.840.1.113883.11.2 0.9.19 (ProblemAct statusCode)
effectiveTime	0..1	MAY		<a href="#">1198-32226</a>	
author	0..*	SHOULD		<a href="#">1198-32300</a>	<a href="#">Author Participation</a> ( <a href="#">identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119</a> )
entryRelationship	0..*	MAY		<a href="#">1198-32179</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32227</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32219</a>	<a href="#">Problem Observation (V3)</a> ( <a href="#">identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01</a> )
entryRelationship	0..*	MAY		<a href="#">1198-32181</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32228</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32229</a>	<a href="#">Allergy - Intolerance Observation (V2)</a> ( <a href="#">identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09</a>
entryRelationship	0..*	MAY	<a href="#">1198-32182</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32230</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL	<a href="#">1198-32231</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32183</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32232</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL	<a href="#">1198-32233</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32184</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32234</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32235</a>	<a href="#">Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32185</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32236</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32237</a>	<a href="#">Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32186</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32238</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32239</a>	<a href="#">Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32188</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32242</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

observation	1..1	SHALL		<a href="#">1198-32243</a>	<a href="#">Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32189</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32244</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32245</a>	<a href="#">Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32190</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32246</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32247</a>	<a href="#">Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32191</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32248</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		<a href="#">1198-32249</a>	<a href="#">Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32192</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32250</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32251</a>	<a href="#">Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32193</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32252</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32253</a>	<a href="#">Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-</a>	

				<a href="#">32195</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32256</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32257</a>	<a href="#">Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.138)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32197</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32260</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32261</a>	<a href="#">Postprocedure Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.51:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32198</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32262</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32263</a>	<a href="#">Pregnancy Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.15.3.8)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32199</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32264</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32265</a>	<a href="#">Preoperative Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.65:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32200</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32266</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32267</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.9:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32201</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32268</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32269</a>	<a href="#">Result Observation (V3) (identifier:</a>

				<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01</a>
entryRelationship	0..*	MAY	<a href="#">1198-32202</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32270</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32271</a>	<a href="#">Sensory Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32203</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32272</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32273</a>	<a href="#">Social History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32204</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32958</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32275</a>	<a href="#">Substance or Device Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32205</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32276</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32277</a>	<a href="#">Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32206</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32278</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL	<a href="#">1198-32279</a>	<a href="#">Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09)</a>
entryRelationship	0..*	MAY	<a href="#">1198-32207</a>	
@typeCode	1..1	SHALL	<a href="#">1198-32280</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) =

					REFR
observation	1..1	SHALL		<a href="#">1198-32281</a>	<a href="#">Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32208</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32282</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">1198-32283</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32209</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32284</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32285</a>	<a href="#">Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32210</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32286</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32287</a>	<a href="#">Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32211</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32288</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32289</a>	<a href="#">Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109)</a>
entryRelationship	0..*	MAY		<a href="#">1198-32212</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32290</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32291</a>	<a href="#">Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124)</a>

entryRelationship	0..*	MAY		<a href="#">1198-32213</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32292</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		<a href="#">1198-32293</a>	<a href="#">Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.1:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-32214</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32294</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32295</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143</a>
entryRelationship	0..*	MAY		<a href="#">1198-32215</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32296</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-32297</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.143</a>
entryRelationship	0..*	MAY		<a href="#">1198-32216</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32298</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32299</a>	<a href="#">Problem Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.3:2015-08-01</a>
entryRelationship	0..*	MAY		<a href="#">1198-32217</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32301</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1198-32302</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.122</a>
reference	0..*	MAY		<a href="#">1198-32769</a>	
@typeCode	1..1	SHALL		<a href="#">1198-32908</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1198-32909</a>	<a href="#">External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.115:2014-06-09</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32220).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1198-32221).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-32180) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.136" (CONF:1198-32222).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32910).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-32223).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-32305).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="281694009" At risk for (CONF:1198-32306).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-32307).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-32225).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **ProblemAct statusCode** urn:oid:2.16.840.1.113883.11.20.9.19 **STATIC** (CONF:1198-32314).
7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1198-32226).
8. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-32300).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32179) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32227).
  - b. **SHALL** contain exactly one [1..1] **Problem Observation (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-32219).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32181) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32228).
  - b. **SHALL** contain exactly one [1..1] **Allergy - Intolerance Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09) (CONF:1198-32229).

The following entryRelationship represents the relationship between two Health Concern Acts where there is a general relationship between the source and the target (Health Concern RELATES TO Health Concern). The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32182) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32230).
- b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32231).

The following entryRelationship represents the relationship between two Health Concern Acts where the target is a component of the source (Health Concern HAS COMPONENT Health Concern). The Enry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32183) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32232).
  - b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32233).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32184) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32234).
  - b. **SHALL** contain exactly one [1..1] [Assessment Scale Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1198-32235).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32185) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32236).
  - b. **SHALL** contain exactly one [1..1] [Mental Status Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:1198-32237).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32186) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32238).
  - b. **SHALL** contain exactly one [1..1] [Self-Care Activities \(ADL and IADL\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:1198-32239).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32188) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32242).
  - b. **SHALL** contain exactly one [1..1] [Mental Status Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:1198-32243).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32189) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32244).
  - b. **SHALL** contain exactly one [1..1] [Smoking Status - Meaningful Use \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:1198-32245).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32190) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32246).
  - b. **SHALL** contain exactly one [1..1] [Encounter Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:1198-32247).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32191) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32248).
  - b. **SHALL** contain exactly one [1..1] [Family History Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) (CONF:1198-32249).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32192) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32250).
  - b. **SHALL** contain exactly one [1..1] [Functional Status Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09) (CONF:1198-32251).
21. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32193) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32252).
  - b. **SHALL** contain exactly one [1..1] [Hospital Admission Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01) (CONF:1198-32253).
22. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32195) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32256).
  - b. **SHALL** contain exactly one [1..1] [Nutrition Assessment](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138) (CONF:1198-32257).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32197) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32260).

- b. **SHALL** contain exactly one [1..1] [Postprocedure Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01) (CONF:1198-32261).
24. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32198) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32262).
  - b. **SHALL** contain exactly one [1..1] [Pregnancy Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8) (CONF:1198-32263).
25. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32199) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32264).
  - b. **SHALL** contain exactly one [1..1] [Preoperative Diagnosis \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01) (CONF:1198-32265).
26. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32200) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32266).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1198-32267).
27. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32201) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32268).
  - b. **SHALL** contain exactly one [1..1] [Result Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:1198-32269).
28. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32202) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32270).
  - b. **SHALL** contain exactly one [1..1] [Sensory Status](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127) (CONF:1198-32271).
29. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32203) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32272).
  - b. **SHALL** contain exactly one [1..1] [Social History Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01) (CONF:1198-32273).
30. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32204) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32958).
  - b. **SHALL** contain exactly one [1..1] [Substance or Device Allergy - Intolerance Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09) (CONF:1198-32275).
31. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32205) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32276).
  - b. **SHALL** contain exactly one [1..1] [Tobacco Use \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:1198-32277).
32. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32206) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32278).
  - b. **SHALL** contain exactly one [1..1] [Vital Sign Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09) (CONF:1198-32279).
33. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32207) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32280).
  - b. **SHALL** contain exactly one [1..1] [Longitudinal Care Wound Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01) (CONF:1198-32281).

The following entryRelationship represents the relationship Health Concern HAS SUPPORT Observation.

34. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32208) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32282).
  - b. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-32283).
35. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32209) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32284).
  - b. **SHALL** contain exactly one [1..1] [Caregiver Characteristics](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1198-32285).
36. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32210) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32286).
  - b. **SHALL** contain exactly one [1..1] Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:1198-32287).
37. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32211) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32288).
  - b. **SHALL** contain exactly one [1..1] Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:1198-32289).
38. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32212) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32290).
  - b. **SHALL** contain exactly one [1..1] Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124) (CONF:1198-32291).
39. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32213) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32292).
  - b. **SHALL** contain exactly one [1..1] Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:1198-32293).

The following entryRelationship represents the priority that the patient puts on the health concern.

40. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32214) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32294).
  - b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-32295).

The following entryRelationship represents the priority that the provider puts on the health concern.

41. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32215) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32296).
  - b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-32297).
42. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32216) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32298).
- b. **SHALL** contain exactly one [1..1] Problem Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) (CONF:1198-32299).

Where a Health Concern needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

43. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-32217) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32301).
- b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1198-32302).

44. **MAY** contain zero or more [0..\*] **reference** (CONF:1198-32769).

- a. The reference, if present, **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-32908).
- b. The reference, if present, **SHALL** contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1198-32909).

**Figure 216: Risk Concern Act Example**

```
<!-- Risk Concern Act -->
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.136" extension="2015-08-01"/>
    <id root="cbcbe20a-d011-449f-87d1-a23cc3e5f7cf" />
    <code code="X-RISK-CONCERN-ACT" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="At risk for" />
    <!-- This Health Risk has a statusCode of active because it is an active risk -->
    <statusCode code="active" />
    <!-- The effective time is the date that the Health Risk started being followed -
this does not necessarily correlate to the onset date of the contained health issues-->
    <effectiveTime value="20130616" />
    <!-- Health Risk: Malignant neoplastic disease -->
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
            <id root="8dfacd73-1682-4cc4-9351-e54cce83612" />
            <code code="80943009" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Risk factor" />
            <statusCode code="completed" />
            <effectiveTime>
                <low value="20130613" />
            </effectiveTime>
            <value xsi:type="CD" code="409623005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Malignant neoplastic disease" />
        </observation>
    </entryRelationship>
    ...
    <!-- This entryRelationship represents the relationship
    "Health Risk REFERS TO Health Concern"-->
    <entryRelationship typeCode="REFR">
        <!-- Entry Reference Concern Act -->
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.122" />
            <!-- This id points to an already defined Health Concern -->
            <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
            <code nullFlavor="NP" />
            <statusCode code="completed" />
        </act>
    </entryRelationship>
</act>
```

## 4.95 Self-Care Activities (ADL and IADL)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.128 (open) ]

**Table 461: Self-Care Activities (ADL and IADL) Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Functional Status Organizer (V2)</a> (required) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents a patient's daily self-care ability. These activities are called Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). ADLs involve caring for and moving of the body (e.g., dressing, bathing, eating). IADLs support an independent life style (e.g., cooking, managing medications, driving, shopping).

**Table 462: Self-Care Activities (ADL and IADL) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128)					
@classCode	1..1	SHALL		<a href="#">1098-31389</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-31390</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-28190</a>	
@root	1..1	SHALL		<a href="#">1098-28457</a>	2.16.840.1.113883.10.20.22.4.1 28
code	1..1	SHALL		<a href="#">1098-28153</a>	urn:oid:2.16.840.1.113883.11.2 0.9.47 (ADL Result Type)
statusCode	1..1	SHALL		<a href="#">1098-32490</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus)
@code	1..1	SHALL		<a href="#">1098-32491</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-32492</a>	
value	1..1	SHALL	CD	<a href="#">1098-28042</a>	urn:oid:2.16.840.1.113883.11.2 0.9.46 (Ability)
author	0..*	SHOULD		<a href="#">1098-32469</a>	<a href="#">Author Participation</a> (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31389).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31390).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-28190) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.128" (CONF:1098-28457).

If more detailed ADL and IADL activities need to be recorded select the appropriate code from LOINC.

4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [ADL Result Type](#) urn:oid:2.16.840.1.113883.11.20.9.47 **DYNAMIC** (CONF:1098-28153).
5. **SHALL** contain exactly one [1..1] **statusCode** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32490).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32491).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-32492).
7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Ability](#) urn:oid:2.16.840.1.113883.11.20.9.46 **STATIC** (CONF:1098-28042).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32469).

**Table 463: Ability**

Value Set: Ability urn:oid:2.16.840.1.113883.11.20.9.46 A value set containing SNOMED-CT codes for level of dependence.			
Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
371150009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	able
371153006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	independent
371155004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	able to and does
371152001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	assisted
371154000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	dependent
371151008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	unable
371156003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	does not
371157007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	difficulty
385640009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	does

**Table 464: ADL Result Type**

Value Set: ADL Result Type urn:oid:2.16.840.1.113883.11.20.9.47 This value set includes Basic ADL and IADL activities. Value Set Source: <a href="http://www.hl7.org">http://www.hl7.org</a>			
Code	Code System	Code System OID	Print Name
46008-9	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Bathing
28409-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Dressing
28408-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Toileting
46484-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Feeding or Eating
46482-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Transferring
28413-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Ambulation

**Figure 217: Self-Care Activities (ADL and IADL) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Self Care Activities (NEW) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.128" />
  <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0a" />
  <code code="46482-6" displayName="Transferring" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" />
  <statusCode code="completed" />
  <effectiveTime value="200130311" />
  <value xsi:type="CD" code="371153006" displayName="Independent"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
  <author>
    ...
  </author>
</observation>
```

## 4.96 Sensory Status

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.127 (open) ]

**Table 465: Sensory Status Contexts**

Contained By:	Contains:
<a href="#">Functional Status Section (V2)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Assessment Scale Observation</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents a patient's sensory or speech ability. It may contain an assessment scale observations related to the sensory or speech ability.

**Table 466: Sensory Status Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF #</b>	<b>Value</b>
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127)					
@classCode	1..1	SHALL		<a href="#">1098-31017</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-31018</a>	urn:oid:2.16.840.1.113883.5.10.01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-27959</a>	
@root	1..1	SHALL		<a href="#">1098-27960</a>	2.16.840.1.113883.10.20.22.4.127
code	1..1	SHALL		<a href="#">1098-27962</a>	urn:oid:2.16.840.1.113883.11.2.0.9.50 (Sensory Status Problem Type)
statusCode	1..1	SHALL		<a href="#">1098-31437</a>	
@code	1..1	SHALL		<a href="#">1098-31438</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31441</a>	
low	1..1	SHALL		<a href="#">1098-32630</a>	
high	0..1	MAY		<a href="#">1098-32631</a>	
value	1..1	SHALL	CD	<a href="#">1098-27974</a>	urn:oid:2.16.840.1.113883.11.2.0.9.44 (Mental and Functional Status Response)
author	0..*	SHOULD		<a href="#">1098-31439</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-27984</a>	
@typeCode	1..1	SHALL		<a href="#">1098-27985</a>	urn:oid:2.16.840.1.113883.5.10.02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-27986</a>	<a href="#">Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.69)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31017).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31018).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-27959) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.127" (CONF:1098-27960).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Sensory Status Problem Type](#) urn:oid:2.16.840.1.113883.11.20.9.50 **DYNAMIC** (CONF:1098-27962).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31437).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31438).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31441).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became biologically active.

- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1098-32630).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became biologically resolved.

- b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1098-32631).

7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Mental and Functional Status Response](#) urn:oid:2.16.840.1.113883.11.20.9.44 **DYNAMIC** (CONF:1098-27974).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31439).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-27984) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-27985).
  - b. **SHALL** contain exactly one [1..1] [Assessment Scale Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:1098-27986).

**Table 467: Sensory Status Problem Type**

Value Set: Sensory Status Problem Type urn:oid:2.16.840.1.113883.11.20.9.50 A value set of SNOMED-CT observable codes to identify sensory and speech problems. Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
47078008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Hearing
405183003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Sensory function status: vision
373713005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Sensory perception
397627001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Taste, function
397686008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Sense of smell, function
397624008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	touch sensation, function
128542002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	speech hearing function
285567008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	ability to perform functions for speech

**Table 468: Mental and Functional Status Response**

Value Set: Mental and Functional Status Response urn:oid:2.16.840.1.113883.11.20.9.44 A value set containing SNOMED-CT qualifier codes that are common responses to mental and functional ability queries. Value Set Source: <a href="http://vts1.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=27252000_6">http://vts1.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=27252000_6</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
11163003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Intact
260379002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Impaired
272520006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	degree findings
1250004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	decreased
18043004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	thin
18307000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	altered
20572008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	good
30714006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	resistant
35105006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	increased
41277001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	lacking
...			

**Figure 218: Sensory and Speech Status Example**

```
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Sensory and Speech Status (NEW) -->
    <templateId root="2.16.840.1.113883.10.20.22.4.127" />
    <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0a" />
    <code code="47078008" displayName="Hearing" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" />
    <statusCode code="completed" />
    <effectiveTime value="200130311" />
    <value xsi:type="CD" code="260379002" displayName="Impaired" codeSystemName="SNOMED
CT" />
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <!--Assessment Scale Observation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.69" />
        <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b" />
        ...
      </observation>
    </entryRelationship>
  </observation>
</entry>
```

## 4.97 Series Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.63 (open) ]

**Table 469: Series Act Contexts**

Contained By:	Contains:
<a href="#">Study Act</a> (required)	<a href="#">SOP Instance Observation</a> (required)

A Series Act contains the DICOM series information for referenced DICOM composite objects. The series information defines the attributes that are used to group composite instances into distinct logical sets. Each series is associated with exactly one study. Series Act clinical statements are only instantiated in the DICOM Object Catalog section inside a Study Act, and thus do not require a separate templateId; in other sections, the SOP Instance Observation is included directly.

**Table 470: Series Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.63)					
@classCode	1..1	SHALL		<a href="#">81-9222</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-9223</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-10918</a>	
@root	1..1	SHALL		<a href="#">81-10919</a>	2.16.840.1.113883.10.20.22.4.6 3
id	1..*	SHALL		<a href="#">81-9224</a>	
@root	1..1	SHALL		<a href="#">81-9225</a>	
@extension	0..0	SHALL NOT		<a href="#">81-9226</a>	
code	1..1	SHALL		<a href="#">81-19166</a>	
@code	1..1	SHALL		<a href="#">81-19167</a>	113015
@codeSystem	0..1	MAY		<a href="#">81-26461</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
qualifier	1..1	SHALL		<a href="#">81-26462</a>	
name	1..1	SHALL		<a href="#">81-26463</a>	
@code	1..1	SHALL		<a href="#">81-26464</a>	121139
@codeSystem	1..1	SHALL		<a href="#">81-26465</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
value	1..1	SHALL		<a href="#">81-26466</a>	
text	0..1	MAY		<a href="#">81-9233</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9235</a>	
entryRelationship	1..*	SHALL		<a href="#">81-9237</a>	
@typeCode	1..1	SHALL		<a href="#">81-9238</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">81-15927</a>	<a href="#">SOP Instance Observation</a> <a href="#">(identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10.2 0.6.2.8</a>

1. **SHALL** contain exactly one [1..1] `@classCode="ACT"` Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9222).
2. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9223).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:81-10918) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.63"` (CONF:81-10919).
4. **SHALL** contain at least one [1..\*] `id` (CONF:81-9224).

The `@root` contains the OID of the study instance UID since DICOM study ids consist only of an OID

- a. Such ids **SHALL** contain exactly one [1..1] `@root` (CONF:81-9225).
- b. Such ids **SHALL NOT** contain [0..0] `@extension` (CONF:81-9226).
5. **SHALL** contain exactly one [1..1] `code` (CONF:81-19166).
  - a. This code **SHALL** contain exactly one [1..1] `@code="113015"` (CONF:81-19167).
  - b. This code **MAY** contain zero or one [0..1] `@codeSystem="1.2.840.10008.2.16.4"` (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26461).
  - c. This code **SHALL** contain exactly one [1..1] `qualifier` (CONF:81-26462).
    - i. This qualifier **SHALL** contain exactly one [1..1] `name` (CONF:81-26463).
      1. This name **SHALL** contain exactly one [1..1] `@code="121139"` Modality (CONF:81-26464).
      2. This name **SHALL** contain exactly one [1..1] `@codeSystem="1.2.840.10008.2.16.4"` (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26465).
    - ii. This qualifier **SHALL** contain exactly one [1..1] `value` (CONF:81-26466).

If present, the text element contains the description of the series

6. **MAY** contain zero or one [0..1] `text` (CONF:81-9233).

If present, the effectiveTime contains the time the series was started

7. **SHOULD** contain zero or one [0..1] `effectiveTime` (CONF:81-9235).
8. **SHALL** contain at least one [1..\*] `entryRelationship` (CONF:81-9237) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9238).
  - b. **SHALL** contain exactly one [1..1] [SOP Instance Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:81-15927).

**Figure 219: Series Act Example**

```
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.63"/>
    <id root="1.2.840.113619.2.62.994044785528.20060823223142485051"/>
    <code code="113015" codeSystem="1.2.840.10008.2.16.4"
        codeSystemName="DCM" displayName="Series">
        <qualifier>
            <name code="121139" codeSystem="1.2.840.10008.2.16.4"
                codeSystemName="DCM" displayName="Modality"/>
            <value code="CR" codeSystem="1.2.840.10008.2.16.4" codeSystemName="DCM"
                displayName="Computed Radiography"/>
        </qualifier>
    </code>
    <!-- **** SOP Instance UID *** -->
    <entryRelationship typeCode="COMP">
        <observation classCode="DGIMG" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
...
        </observation>
    </entryRelationship>
</act>
```

## 4.98 Service Delivery Location

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.32 (open) ]

**Table 471: Service Delivery Location Contexts**

Contained By:	Contains:
<a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)	

This clinical statement represents the location of a service event where an act, observation or procedure took place.

**Table 472: Service Delivery Location Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)					
@classCode	1..1	SHALL		<a href="#">81-7758</a>	urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = SDLOC
templateId	1..1	SHALL		<a href="#">81-7635</a>	
@root	1..1	SHALL		<a href="#">81-10524</a>	2.16.840.1.113883.10.20.22.4.32
code	1..1	SHALL		<a href="#">81-16850</a>	urn:oid:2.16.840.1.113883.1.11.20275 (HealthcareServiceLocation)
addr	0..*	SHOULD		<a href="#">81-7760</a>	
telecom	0..*	SHOULD		<a href="#">81-7761</a>	
playingEntity	0..1	MAY		<a href="#">81-7762</a>	
@classCode	1..1	SHALL		<a href="#">81-7763</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
name	0..1	MAY		<a href="#">81-16037</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111 **STATIC**) (CONF:81-7758).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7635) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.32"** (CONF:81-10524).
3. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [HealthcareServiceLocation](#) urn:oid:2.16.840.1.113883.1.11.20275 **STATIC** (CONF:81-16850).
4. **SHOULD** contain zero or more [0..\*] **addr** (CONF:81-7760).
5. **SHOULD** contain zero or more [0..\*] **telecom** (CONF:81-7761).
6. **MAY** contain zero or one [0..1] **playingEntity** (CONF:81-7762).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **@classCode="PLC"** (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:81-7763).
  - b. The playingEntity, if present, **MAY** contain zero or one [0..1] **name** (CONF:81-16037).

**Table 473: HealthcareServiceLocation**

Value Set: HealthcareServiceLocation urn:oid:2.16.840.1.113883.1.11.20275

A comprehensive classification of locations and settings where healthcare services are provided. This value set is based on the National Healthcare Safety Network (NHSN) location code system that has been developed over a number of years through CDC's interaction with a variety of healthcare facilities and is intended to serve a variety of reporting needs where coding of healthcare service locations is required.

A full listing of codes can be found in the `hai_voc.xls` file provided with this package.

Value Set Source: <https://vsac.nlm.nih.gov/>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
1162-7	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	24-Hour observation area
1184-1	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Administrative area
1210-4	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Adult Mixed Acuity Unit
1099-1	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Adult step down unit [post-critical care]
1110-6	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Allergy clinic
1166-8	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Ambulatory surgical setting
1212-0	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Any Age Mixed Acuity Unit
1106-4	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Assisted living area
1145-2	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Behavioral health clinic
1185-8	HL7 HealthcareServiceLocatio n	urn:oid:2.16.840.1.11388 3.6.259	Blood bank
...			

**Figure 220: Service Delivery Location Example**

```
<participantRole classCode="SDLOC">
  <templateId root="2.16.840.1.113883.10.20.22.4.32"/>
  <code code="1160-1" codeSystem="2.16.840.1.113883.6.259"
    codeSystemName="HealthcareServiceLocation" displayName="Urgent Care Center"/>
  <addr>
    <streetAddressLine>17 Daws Rd.</streetAddressLine>
    <city>Blue Bell</city>
    <state>MA</state>
    <postalCode>02368</postalCode>
    <country>US</country>
  </addr>
  <telecom use="WP" value="tel:+1(555)555-5000"/>
  <playingEntity classCode="PLC">
    <name>Community Health and Hospitals</name>
  </playingEntity>
</participantRole>
```

## 4.99 Severity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09  
(open) ]

**Table 474: Severity Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional)	

This clinical statement represents the gravity of the reaction. The Severity Observation characterizes the Reaction Observation. A person may manifest many symptoms in a reaction to a single substance, and each reaction to the substance can be represented. However, each reaction observation can have only one severity observation associated with it. For example, someone may have a rash reaction observation as well as an itching reaction observation, but each can have only one level of severity.

Note the severity observation is no longer recommended for use with the Allergy and Intolerance Observation. The Criticality Observation is preferred for characterizing the Allergy and Intolerance.

**Table 475: Severity Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7345</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7346</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7347</a>	
@root	1..1	SHALL		<a href="#">1098-10525</a>	2.16.840.1.113883.10.20.22.4.8
@extension	1..1	SHALL		<a href="#">1098-32577</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-19168</a>	
@code	1..1	SHALL		<a href="#">1098-19169</a>	SEV
@codeSystem	1..1	SHALL		<a href="#">1098-32170</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-7352</a>	
@code	1..1	SHALL		<a href="#">1098-19115</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1098-7356</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 (Reaction Severity)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7345).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7346).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7347) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.8" (CONF:1098-10525).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32577).
4. **SHALL** contain exactly one [1..1] code (CONF:1098-19168).
  - a. This code **SHALL** contain exactly one [1..1] @code="SEV" Severity (CONF:1098-19169).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32170).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-7352).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19115).
- 6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Reaction Severity** urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 **DYNAMIC** (CONF:1098-7356).

**Table 476: Reaction Severity**

Value Set: Reaction Severity urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 (Clinical Focus: This is a description of the level of severity of the REACTION),(Data Element Scope: ),(Inclusion Criteria: Three severities (map fatal to severe, moderate to severe to severe, mild to moderate to moderate)),(Exclusion Criteria: )  This value set was imported on 9/21/2017 with a version of 20170915. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion</a>			
Code	Code System	Code System OID	Print Name
24484000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Severe (severity modifier) (qualifier value)
255604002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Mild (qualifier value)
6736007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Moderate (severity modifier) (qualifier value)

**Figure 221: Severity Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />
  <code code="SEV" displayName="Severity Observation" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" />
  <text>
    <reference value="#allergyseverity1" />
  </text>
  <statusCode code="completed" />
  <value xsi:type="CD" code="371924009" displayName="Moderate to severe"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
</observation>
```

## 4.100 Smoking Status - Meaningful Use (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09 (open)]

**Table 477: Smoking Status - Meaningful Use (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents the current smoking status of the patient as specified in Meaningful Use (MU) Stage 2 requirements. Historic smoking status observations as well as details about the smoking habit (e.g., how many per day) would be represented in the Tobacco Use template.

This template represents a "snapshot in time" observation, simply reflecting what the patient's current smoking status is at the time of the observation. As a result, the effectiveTime is constrained to a time stamp, and will approximately correspond with the author/time. Details regarding the time period when the patient is/was smoking would be recorded in the Tobacco Use template.

If the patient's current smoking status is unknown, the value element must be populated with SNOMED CT code 266927001 to communicate "Unknown if ever smoked" from the Current Smoking Status Value Set.

**Table 478: Smoking Status - Meaningful Use (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-14806</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-14807</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-14815</a>	
@root	1..1	SHALL		<a href="#">1098-14816</a>	2.16.840.1.113883.10.20.22.4.78
@extension	1..1	SHALL		<a href="#">1098-32573</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-32401</a>	
code	1..1	SHALL		<a href="#">1098-19170</a>	
@code	1..1	SHALL		<a href="#">1098-31039</a>	72166-2
@codeSystem	1..1	SHALL		<a href="#">1098-32157</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-14809</a>	
@code	1..1	SHALL		<a href="#">1098-19116</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31928</a>	
low	0..0	SHALL NOT		<a href="#">1098-32894</a>	
width	0..0	SHALL NOT		<a href="#">1098-32895</a>	
high	0..0	SHALL NOT		<a href="#">1098-32896</a>	
center	0..0	SHALL NOT		<a href="#">1098-32897</a>	
value	1..1	SHALL	CD	<a href="#">1098-14810</a>	
@code	1..1	SHALL		<a href="#">1098-14817</a>	urn:oid:2.16.840.1.113883.11.2 0.9.38 (Current Smoking Status)
author	0..*	SHOULD		<a href="#">1098-31148</a>	<a href="#">Author Participation /identifier: urn:oid:2.16.840.1.113883.10.2.0.22.4.119</a>

1. **SHALL** contain exactly one [1..1] `@classCode="OBS"` Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-14806).
2. **SHALL** contain exactly one [1..1] `@moodCode="EVN"` Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-14807).
3. **SHALL** contain exactly one [1..1] `templateId` (CONF:1098-14815) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.78"` (CONF:1098-14816).
  - b. **SHALL** contain exactly one [1..1] `@extension="2014-06-09"` (CONF:1098-32573).
4. **SHALL** contain at least one [1..\*] `id` (CONF:1098-32401).
5. **SHALL** contain exactly one [1..1] `code` (CONF:1098-19170).
  - a. This code **SHALL** contain exactly one [1..1] `@code="72166-2"` Tobacco smoking status NHIS (CONF:1098-31039).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32157).
6. **SHALL** contain exactly one [1..1] `statusCode` (CONF:1098-14809).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19116).
7. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:1098-31928).
 

Note: This template represents a "snapshot in time" observation, simply reflecting what the patient's current smoking status is at the time of the observation. As a result, the effectiveTime is constrained to just a time stamp, and will approximately correspond with the author/time.

  - a. This effectiveTime **SHALL NOT** contain [0..0] `low` (CONF:1098-32894).
  - b. This effectiveTime **SHALL NOT** contain [0..0] `width` (CONF:1098-32895).
  - c. This effectiveTime **SHALL NOT** contain [0..0] `high` (CONF:1098-32896).
  - d. This effectiveTime **SHALL NOT** contain [0..0] `center` (CONF:1098-32897).
8. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:1098-14810).
  - a. This value **SHALL** contain exactly one [1..1] `@code`, which **SHALL** be selected from ValueSet [Current Smoking Status](#) urn:oid:2.16.840.1.113883.11.20.9.38 **STATIC** 2014-09-01 (CONF:1098-14817).
  - b. If the patient's current smoking status is unknown, `@code` **SHALL** contain '266927001' (Unknown if ever smoked) from ValueSet Current Smoking Status (2.16.840.1.113883.11.20.9.38 STATIC 2014-09-01) (CONF:1098-31019).
9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31148).

**Table 479: Current Smoking Status**

Value Set: Current Smoking Status urn:oid:2.16.840.1.113883.11.20.9.38 This value set indicates the current smoking status of a patient. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
449868002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Current every day smoker
428041000124106	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Current some day smoker
8517006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Former smoker
266919005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Never smoker (Never Smoked)
77176002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Smoker, current status unknown
266927001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Unknown if ever smoked
428071000124103	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Heavy tobacco smoker
428061000124105	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Light tobacco smoker

**Figure 222: Smoking Status - Meaningful Use (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.78" extension="2014-06-09" />
    <id extension="123456789" root="2.16.840.1.113883.19" />
    <code code="72166-2" codeSystem="2.16.840.1.113883.6.1" displayName="Tobacco smoking status NHIS" />
    <statusCode code="completed" />
    <!-- The effectiveTime reflects when the current smoking status was observed. -->
    <effectiveTime value="20120910" />
    <!-- The value represents the patient's smoking status currently observed. -->
    <value xsi:type="CD" code="8517006" displayName="Former smoker"
codeSystem="2.16.840.1.113883.6.96" />
    <author typeCode="AUT">
        <time value="199803161030-0800" />
        <assignedAuthor>
            <id extension="555555555" root="1.1.1.1.1.1.2" />
        </assignedAuthor>
    </author>
</observation>

```

## 4.101 Social History Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01 (open)]

**Table 480: Social History Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents a patient's occupations, lifestyle, and environmental health risk factors. Demographic data (e.g., marital status, race, ethnicity, religious affiliation) are captured in the header. Though tobacco use and exposure may be represented with a Social History Observation, it is recommended to use the Current Smoking Status template or the Tobacco Use template instead, to represent smoking or tobacco habits.

**Table 481: Social History Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8548</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-8549</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8550</a>	
@root	1..1	SHALL		<a href="#">1198-10526</a>	2.16.840.1.113883.10.20.22.4.3 8
@extension	1..1	SHALL		<a href="#">1198-32495</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8551</a>	
code	1..1	SHALL		<a href="#">1198-8558</a>	urn:oid:2.16.840.1.113883.3.88. 12.80.60 (Social History Type )
statusCode	1..1	SHALL		<a href="#">1198-8553</a>	
@code	1..1	SHALL		<a href="#">1198-19117</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-31868</a>	
value	0..1	SHOULD		<a href="#">1198-8559</a>	
author	0..*	SHOULD		<a href="#">1198-31869</a>	<a href="#">Author Participation</a> (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8548).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8549).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8550) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.38"** (CONF:1198-10526).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32495).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8551).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60 **STATIC** 2008-12-18 (CONF:1198-8558).
  - a. If @codeSystem is not LOINC, then this code **SHALL** contain at least one [1..\*] translation, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32951).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8553).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19117).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-31868).
8. **SHOULD** contain zero or one [0..1] **value** (CONF:1198-8559).
  - a. If Observation/value is a physical quantity (xsi:type="PQ"), the unit of measure **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive (2.16.840.1.113883.1.11.12839) **DYNAMIC** (CONF:1198-8555).
9. **SHOULD** contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31869).

**Table 482: Social History Type**

Value Set: Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60 A value set of SNOMED-CT observable entity codes containing common social history observables. Though Tobacco Use and Exposure exists in this value set, it is recommended to use the Current Smoking Status template or the Tobacco Use template to represent smoking or tobacco habits.			
Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
160573003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Alcohol intake (observable entity)
363908000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Details of drug misuse behavior (observable entity)
364703007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Employment detail (observable entity)
256235009	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Exercise (observable entity)
228272008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Health-related behavior (observable entity)
364393001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Nutritional observable (observable entity)
425400000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Toxic exposure status (observable entity)
105421008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Educational achievement (observable entity)
302160007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Household, family and support network detail (observable entity)
423514004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Community resource details (observable entity)
...			

**Figure 223: Social History Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.38"
    extension="2015-08-01" />
  <id root="37f76c51-6411-4e1d-8a37-957fd49d2cef" />
  <code code="160573003" displayName="Alcohol intake"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT">
    <translation code="74013-4"
      codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      displayName="Alcoholic drinks per day"></translation>
    <statusCode code="completed" />
    <effectiveTime>
      <low value="20120215" />
    </effectiveTime>
    <value xsi:type="PQ" value="12" />
    <author typeCode="AUT">
      <templateId root="2.16.840.1.113883.10.20.22.4.119" />
      ...
    </author>
  </observation>
```

## 4.102 SOP Instance Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.8 (open)]

**Table 483: SOP Instance Observation Contexts**

Contained By:	Contains:
<a href="#">Series Act</a> (required) <a href="#">Text Observation</a> (optional) <a href="#">Code Observations</a> (optional) <a href="#">Quantity Measurement Observation</a> (optional) <a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">Purpose of Reference Observation</a> (optional) <a href="#">Referenced Frames Observation</a> (optional)

A SOP Instance Observation contains the DICOM Service Object Pair (SOP) Instance information for referenced DICOM composite objects. The SOP Instance act class is used to reference both image and non-image DICOM instances. The text attribute contains the DICOM WADO reference.

**Table 484: SOP Instance Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8)					
@classCode	1..1	SHALL		<a href="#">81-9240</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DGIMG
@moodCode	1..1	SHALL		<a href="#">81-9241</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
id	1..*	SHALL		<a href="#">81-9242</a>	
code	1..1	SHALL		<a href="#">81-9244</a>	
@code	1..1	SHALL		<a href="#">81-19225</a>	
@codeSystem	1..1	SHALL		<a href="#">81-19227</a>	1.2.840.10008.2.6.1
text	0..1	SHOULD		<a href="#">81-9246</a>	
@mediaType	1..1	SHALL		<a href="#">81-9247</a>	application/dicom
reference	1..1	SHALL		<a href="#">81-9248</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9250</a>	
@value	1..1	SHALL		<a href="#">81-9251</a>	
low	0..0	SHALL NOT		<a href="#">81-9252</a>	
high	0..0	SHALL NOT		<a href="#">81-9253</a>	
entryRelationship	0..*	MAY		<a href="#">81-9254</a>	
@typeCode	1..1	SHALL		<a href="#">81-9255</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
entryRelationship	0..*	MAY		<a href="#">81-9257</a>	
@typeCode	1..1	SHALL		<a href="#">81-9258</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">81-15935</a>	<a href="#">Purpose of Reference</a> <a href="#">Observation (identifier: urn:oid:2.16.840.1.113883.10.2.6.2.9)</a>
entryRelationship	0..*	MAY		<a href="#">81-9260</a>	
@typeCode	1..1	SHALL		<a href="#">81-</a>	urn:oid:2.16.840.1.113883.5.10

				<a href="#">9261</a>	02 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">81-15936</a>	<a href="#">Referenced Frames Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.6.2.10)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="DGIMG" Diagnostic Image (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9240).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9241).

The @root contains an OID representing the DICOM SOP Instance UID

3. **SHALL** contain at least one [1..\*] **id** (CONF:81-9242).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9244).
  - a. This code **SHALL** contain exactly one [1..1] **@code** (CONF:81-19225).
    - i. @code is an OID for a valid SOP class name UID (CONF:81-19226).
    - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="1.2.840.10008.2.6.1" DCMUID (CONF:81-19227).
5. **SHOULD** contain zero or one [0..1] **text** (CONF:81-9246).
  - a. The text, if present, **SHALL** contain exactly one [1..1] **@mediaType**="application/dicom" (CONF:81-9247).
  - b. The text, if present, **SHALL** contain exactly one [1..1] **reference** (CONF:81-9248).
    - i. SHALL contain a @value that contains a WADO reference as a URI (CONF:81-9249).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9250).
  - a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:81-9251).
  - b. The effectiveTime, if present, **SHALL NOT** contain [0..0] **low** (CONF:81-9252).
  - c. The effectiveTime, if present, **SHALL NOT** contain [0..0] **high** (CONF:81-9253).
7. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9254) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9255).
8. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9257) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9258).
  - b. **SHALL** contain exactly one [1..1] [Purpose of Reference Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.9) (CONF:81-15935).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9260) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9261).

- b. **SHALL** contain exactly one [1..1] **Referenced Frames Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.10) (CONF:81-15936).
- c. This entryRelationship **SHALL** be present if the referenced DICOM object is a multiframe object and the reference does not apply to all frames (CONF:81-9263).

**Figure 224: SOP Instance Observation Example**

```

<observation classCode="DGIMG" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
  <id root="1.2.840.113619.2.62.994044785528.20060823.200608232232322.3"/>
  <code code="1.2.840.10008.5.1.4.1.1"
codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"
displayName="Computed Radiography Image Storage"></code>
  <text mediaType="application/dicom">
    <reference
value="http://www.example.org/wado?requestType=WADO&studyUID=1.2.840.113619.2.62.994044785528.114289542805&seriesUID=1.2.840.113619.2.62.994044785528.20060823223142485051&objectUID=1.2.840.113619.2.62.994044785528.20060823.200608232232322.3&contentType=application/dicom"/>
    <!--reference to image 1 (PA) -->
  </text>
  <effectiveTime value="200608231235-0800"/>
</observation>

```

## 4.103 Study Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.6.2.6 (open) ]

**Table 485: Study Act Contexts**

Contained By:	Contains:
<a href="#">DICOM Object Catalog Section - DCM 121181</a> (required)	<a href="#">Series Act</a> (required)

A Study Act contains the DICOM study information that defines the characteristics of a referenced medical study performed on a patient. A study is a collection of one or more series of medical images, presentation states, SR documents, overlays, and/or curves that are logically related for the purpose of diagnosing a patient. Each study is associated with exactly one patient. A study may include composite instances that are created by a single modality, multiple modalities, or by multiple devices of the same modality. The study information is modality-independent. Study Act clinical statements are only instantiated in the DICOM Object Catalog section; in other sections, the SOP Instance Observation is included directly.

**Table 486: Study Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.6)					
@classCode	1..1	SHALL		<a href="#">81-9207</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-9208</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9209</a>	
@root	1..1	SHALL		<a href="#">81-10533</a>	2.16.840.1.113883.10.20.6.2.6
id	1..*	SHALL		<a href="#">81-9210</a>	
@root	1..1	SHALL		<a href="#">81-9213</a>	
@extension	0..0	SHALL NOT		<a href="#">81-9211</a>	
code	1..1	SHALL		<a href="#">81-19172</a>	
@code	1..1	SHALL		<a href="#">81-19173</a>	113014
@codeSystem	1..1	SHALL		<a href="#">81-26506</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
text	0..1	MAY		<a href="#">81-9215</a>	
reference	0..1	SHOULD		<a href="#">81-15995</a>	
@value	0..1	SHOULD		<a href="#">81-15996</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9216</a>	
entryRelationship	1..*	SHALL		<a href="#">81-9219</a>	
@typeCode	1..1	SHALL		<a href="#">81-9220</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">81-15937</a>	<a href="#">Series Act (identifier: urn:oid:2.16.840.1.113883.10.2.022.4.63)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9207).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9208).
3. **SHALL** contain exactly one [1..1] templateId (CONF:81-9209) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.6" (CONF:81-10533).
- 4. **SHALL** contain at least one [1..\*] **id** (CONF:81-9210).

The @root contains the OID of the study instance UID since DICOM study ids consist only of an OID

- a. Such ids **SHALL** contain exactly one [1..1] @root (CONF:81-9213).
- b. Such ids **SHALL NOT** contain [0..0] @extension (CONF:81-9211).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:81-19172).
  - a. This code **SHALL** contain exactly one [1..1] @code="113014" (CONF:81-19173).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="1.2.840.10008.2.16.4" (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26506).

If present, the text element contains the description of the study.

- 6. **MAY** contain zero or one [0..1] **text** (CONF:81-9215).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:81-15995).
    - i. The reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:81-15996).
      - 1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-15997).

If present, the effectiveTime contains the time the study was started

- 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9216).
- 8. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:81-9219) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9220).
  - b. **SHALL** contain exactly one [1..1] **Series Act** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.63) (CONF:81-15937).

**Figure 225: Study Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
  <id root="1.2.840.113619.2.62.994044785528.114289542805"/>
  <code code="113014" codeSystem="1.2.840.10008.2.16.4" codeSystemName="DCM"
displayName="Study"/>
  <!-- **** Series *****-->
  <entryRelationship typeCode="COMP">
    <act classCode="ACT" moodCode="EVN">
      .
      .
    </act>
  </entryRelationship>
</act>
```

## 4.104 Substance Administered Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.118 (open) ]

**Table 487: Substance Administered Act Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	

This template represents the administration course in a series. The entryRelationship/sequenceNumber in the containing template shows the order of this particular administration in that medication series.

**Table 488: Substance Administered Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118)					
@classCode	1..1	SHALL		<a href="#">1098-31500</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31501</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31502</a>	
@root	1..1	SHALL		<a href="#">1098-31503</a>	2.16.840.1.113883.10.20.22.4.118
id	1..*	SHALL		<a href="#">1098-31504</a>	
code	1..1	SHALL		<a href="#">1098-31506</a>	
@code	1..1	SHALL		<a href="#">1098-31507</a>	416118004
@codeSystem	1..1	SHALL		<a href="#">1098-31508</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1098-31505</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	MAY		<a href="#">1098-31509</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31500).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31501).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31502) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.118"** (CONF:1098-31503).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31504).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31506).
  - a. This code **SHALL** contain exactly one [1..1] @code="416118004" Administration (CONF:1098-31507).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-31508).
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31505).
7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1098-31509).

**Figure 226: Substance Administered Act Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
  ...
  <consumable>
    ...
    <code code="43" codeSystem="2.16.840.1.113883.6.59" displayName="Hepatitis B Vaccine" codeSystemName="CVX" />
  </consumable>
  <entryRelationship typeCode="COMP">
    <!-- This entryRelationship sequenceNumber indicates this is #2 in the series -->
    <sequenceNumber value="2" />
    <act classCode="ACT" moodCode="EVN">
      <!-- Substance Administered Act Template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.118" />
      <id root="df8908d0-40f2-11e3-aa6e-0800200c9a66" />
      <code code="416118004" displayName="administration" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
      <statusCode code="completed" />
      <effectiveTime value="19991101" />
    </act>
  </entryRelationship>
  ...
</substanceAdministration>
```

## 4.105 Substance or Device Allergy - Intolerance Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09 (open) ]

**Table 489: Substance or Device Allergy - Intolerance Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Allergy Status Observation</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Criticality Observation</a> (optional)

This template reflects a discrete observation about a patient's allergy or intolerance to a substance or device. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the 'biologically relevant time' is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of penicillin allergy that developed five years ago, the effectiveTime is five years ago.

The effectiveTime of the Substance or Device Allergy - Intolerance Observation is the definitive indication of whether or not the underlying allergy/intolerance is resolved. If known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

**Table 490: Substance or Device Allergy - Intolerance Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-16303</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-16304</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-16305</a>	
@root	1..1	SHALL		<a href="#">1098-16306</a>	2.16.840.1.113883.10.20.24.3.9 0
@extension	1..1	SHALL		<a href="#">1098-32527</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-16307</a>	
code	1..1	SHALL		<a href="#">1098-16345</a>	
@code	1..1	SHALL		<a href="#">1098-16346</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32171</a>	urn:oid:2.16.840.1.113883.5.4 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-16308</a>	
@code	1..1	SHALL		<a href="#">1098-26354</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-16309</a>	
low	1..1	SHALL		<a href="#">1098-31536</a>	
high	0..1	MAY		<a href="#">1098-31537</a>	
value	1..1	SHALL	CD	<a href="#">1098-16312</a>	
@code	1..1	SHALL	CS	<a href="#">1098-16317</a>	urn:oid:2.16.840.1.113883.3.88. 12.3221.6.2 (Allergy and Intolerance Type)
author	0..*	SHOULD		<a href="#">1098-31144</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>
participant	0..*	SHOULD		<a href="#">1098-16318</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16319</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1098-16320</a>	

@classCode	1..1	SHALL		<a href="#">1098-16321</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = MANU
playingEntity	1..1	SHALL		<a href="#">1098-16322</a>	
@classCode	1..1	SHALL		<a href="#">1098-16323</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT
code	1..1	SHALL		<a href="#">1098-16324</a>	urn:oid:2.16.840.1.113762.1.4.1 010.1 (Substance-Reactant for Intolerance)
entryRelationship	0..1	MAY		<a href="#">1098-16333</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16335</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-16334</a>	true
observation	1..1	SHALL		<a href="#">1098-16336</a>	<a href="#">Allergy Status Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.28</a>
entryRelationship	0..*	SHOULD		<a href="#">1098-16337</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16339</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = MFST
@inversionInd	1..1	SHALL		<a href="#">1098-16338</a>	true
observation	1..1	SHALL		<a href="#">1098-16340</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.9:2014-06-09</a>
entryRelationship	0..1	SHOULD NOT		<a href="#">1098-16341</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16342</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-16343</a>	true
observation	1..1	SHALL		<a href="#">1098-16344</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10. 20.22.4.8:2014-06-09</a>
entryRelationship	0..1	SHOULD		<a href="#">1098-32935</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32936</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-32937</a>	true

observation	1..1	SHALL		<a href="#">1098-32938</a>	<a href="#">Criticality Observation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.145)</a>
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1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-16303).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-16304).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-16305) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.90"** (CONF:1098-16306).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32527).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-16307).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-16345).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1098-16346).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32171).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-16308).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-26354).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-16309).

Note: The effectiveTime/low (a.k.a. "onset date") asserts when the allergy/intolerance became biologically active. The effectiveTime/high (a.k.a. "resolution date") asserts when the allergy/intolerance became biologically resolved.

If the allergy/intolerance is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'.

- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1098-31536).
- b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1098-31537).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:1098-16312).
  - a. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Allergy and Intolerance Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 **DYNAMIC** (CONF:1098-16317). Note: Many systems will simply assign a fixed value here (e.g., "allergy to substance").
9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31144).
10. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1098-16318) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-16319).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-16320).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-16321).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1098-16322).
      - 1. This playingEntity **SHALL** contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1098-16323).
      - 2. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **MAY** be selected from ValueSet [Substance-Reactant for Intolerance](#) urn:oid:2.16.840.1.113762.1.4.1010.1 **DYNAMIC** (CONF:1098-16324).
11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-16333) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16335).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16334).
  - c. **SHALL** contain exactly one [1..1] [Allergy Status Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28) (CONF:1098-16336).
12. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1098-16337) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="MFST" Is Manifestation of (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16339).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16338).
  - c. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16340).
13. **SHOULD NOT** contain zero or one [0..1] **entryRelationship** (CONF:1098-16341) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16342).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16343).
  - c. **SHALL** contain exactly one [1..1] [Severity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-16344).
14. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-32935) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32936).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-32937).

- c. **SHALL** contain exactly one [1..1] **Criticality Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145) (CONF:1098-32938).

**Table 491: Allergy and Intolerance Type**

Value Set: Allergy and Intolerance Type urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 This value set includes concepts that represent a type of adverse sensitivity, allergy or intolerance. Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
419199007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Allergy to substance (disorder)
416098002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Drug allergy (disorder)
59037007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Drug intolerance (disorder)
414285001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Food allergy (disorder)
235719002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Food intolerance (disorder)
420134006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Propensity to adverse reactions (disorder)
419511003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Propensity to adverse reactions to drug (disorder)
418471000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Propensity to adverse reactions to food (disorder)
418038007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Propensity to adverse reactions to substance (disorder)
232347008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Dander (animal) allergy
...			

**Table 492: Substance-Reactant for Intolerance**

Value Set: Substance-Reactant for Intolerance urn:oid:2.16.840.1.113762.1.4.1010.1

A substance or other type of agent (e.g., sunshine) that may be associated with an intolerance reaction event or a propensity to such an event. These concepts are expected to be at a more general level of abstraction (ingredients versus more specific formulations). This value set is quite general and includes concepts that may never cause an adverse event, particularly the included SNOMED CT concepts. The code system-specific value sets in this grouping value set are intended to provide broad coverage of all kinds of agents, but the expectation for use is that the chosen concept identifier for a substance should be appropriately specific and drawn from the available code systems in the following priority order: NDFRT, then RXNORM, then UNII, then SNOMED CT. This overarching grouping value set is intended to support identification of drug classes, individual medication ingredients, foods, general substances and environmental entities.

Value set intentionally defined as a GROUPING made up of:

Value Set: Medication Drug Class (2.16.840.1.113883.3.88.12.80.18) (NDFRT drug class codes); Value Set: Clinical Drug Ingredient (2.16.840.1.113762.1.4.1010.7) (RxNORM ingredient codes (TTYs: BN, PIN, MIN, IN)); Value Set: Unique Ingredient Identifier - Complete Set (2.16.840.1.113883.3.88.12.80.20) (UNII ingredient codes); Value Set: Substance Other Than Clinical Drug (2.16.840.1.113762.1.4.1010.9) (SNOMED CT substance codes).

Value Set Source: <http://www.hl7.org>

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
18867	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	benazepril
196500	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	Coversyl
83515	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	eprosartan
237057	RxNorm	urn:oid:2.16.840.1.11388 3.6.88	lepirudin
C24814	NDFRT	urn:oid:2.16.840.1.11388 3.3.26.1.5	Acyclovir
N0000168624	NDFRT	urn:oid:2.16.840.1.11388 3.3.26.1.5	Azacosterol
N0000006690	NDFRT	urn:oid:2.16.840.1.11388 3.3.26.1.5	Soybean Oil
QE1QX6B99R	Unique Ingredient Identifier (UNII)	urn:oid:2.16.840.1.11388 3.4.9	PEANUT
...			

#### 4.105.1 Allergy - Intolerance Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09  
(open)]

**Table 493: Allergy - Intolerance Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Allergy Concern Act (V3)</a> (required)	<a href="#">Allergy Status Observation</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Criticality Observation</a> (optional)

This template reflects a discrete observation about a patient's allergy or intolerance. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the "biologically relevant time" is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of penicillin allergy that developed five years ago, the effectiveTime is five years ago.

The effectiveTime of the Allergy - Intolerance Observation is the definitive indication of whether or not the underlying allergy/intolerance is resolved. If known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

The agent responsible for an allergy or adverse reaction is not always a manufactured material (for example, food allergies), nor is it necessarily consumed. The following constraints reflect limitations in the base CDA R2 specification, and should be used to represent any type of responsible agent, i.e., use playingEntity classCode = "MMAT" for all agents, manufactured or not.

**Table 494: Allergy - Intolerance Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7379</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7380</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1098-31526</a>	
templateId	1..1	SHALL		<a href="#">1098-7381</a>	
@root	1..1	SHALL		<a href="#">1098-10488</a>	2.16.840.1.113883.10.20.22.4.7
@extension	1..1	SHALL		<a href="#">1098-32526</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7382</a>	
code	1..1	SHALL		<a href="#">1098-15947</a>	
@code	1..1	SHALL		<a href="#">1098-15948</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32153</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-19084</a>	
@code	1..1	SHALL		<a href="#">1098-19085</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-7387</a>	
low	1..1	SHALL		<a href="#">1098-31538</a>	
high	0..1	MAY		<a href="#">1098-31539</a>	
value	1..1	SHALL	CD	<a href="#">1098-7390</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 (Allergy and Intolerance Type)
author	0..*	SHOULD		<a href="#">1098-31143</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	1..1	SHALL		<a href="#">1098-7402</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7403</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1098-7404</a>	

@classCode	1..1	SHALL		<a href="#">1098-7405</a>	urn:oid:2.16.840.1.113883.5.11 0 (HL7RoleClass) = MANU
playingEntity	1..1	SHALL		<a href="#">1098-7406</a>	
@classCode	1..1	SHALL		<a href="#">1098-7407</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT
code	1..1	SHALL		<a href="#">1098-7419</a>	urn:oid:2.16.840.1.113762.1.4.1 010.1 (Substance-Reactant for Intolerance)
entryRelationship	0..1	MAY		<a href="#">1098-32939</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32940</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-32941</a>	true
observation	1..1	SHALL		<a href="#">1098-32942</a>	<a href="#">Allergy Status Observation</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.2</a> <a href="#">0.22.4.28</a> )
entryRelationship	0..1	SHOULD NOT		<a href="#">1098-9961</a>	
@typeCode	1..1	SHALL		<a href="#">1098-9962</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-9964</a>	true
observation	1..1	SHALL		<a href="#">1098-15956</a>	<a href="#">Severity Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.8:2014-06-09</a> )
entryRelationship	0..*	SHOULD		<a href="#">1098-7447</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7907</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = MFST
@inversionInd	1..1	SHALL		<a href="#">1098-7449</a>	true
observation	1..1	SHALL		<a href="#">1098-15955</a>	<a href="#">Reaction Observation (V2)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.</a> <a href="#">20.22.4.9:2014-06-09</a> )
entryRelationship	0..1	SHOULD		<a href="#">1098-32910</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32911</a>	urn:oid:2.16.840.1.113883.5.10 02 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-32912</a>	true

observation	1..1	SHALL		<a href="#">1098-32913</a>	<a href="#">Criticality Observation (identifier: urn:oid:2.16.840.1.113883.10.2.0.2.4.145)</a>
-------------	------	-------	--	----------------------------	--

1. Conforms to [Substance or Device Allergy - Intolerance Observation \(V2\) template](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7379).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7380).
4. **MAY** contain zero or one [0..1] @negationInd (CONF:1098-31526).  
Note: Use negationInd="true" to indicate that the allergy was not observed.
5. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7381) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.7" (CONF:1098-10488).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32526).
6. **SHALL** contain at least one [1..\*] id (CONF:1098-7382).
7. **SHALL** contain exactly one [1..1] code (CONF:1098-15947).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1098-15948).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32153).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-19084).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19085).
9. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1098-7387).  
Note: If the allergy/intolerance is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'.
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:1098-31538).  
Note: The effectiveTime/low (a.k.a. "onset date") asserts when the allergy/intolerance became biologically active.
  - b. This effectiveTime **MAY** contain zero or one [0..1] high (CONF:1098-31539).  
Note: The effectiveTime/high (a.k.a. "resolution date") asserts when the allergy/intolerance became biologically resolved.
10. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Allergy and Intolerance Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 **DYNAMIC** (CONF:1098-7390).  
Note: The consumable participant points to the precise allergen or substance of intolerance. Because the consumable and the reaction are more clinically relevant than a categorization of the allergy/adverse event type, many systems will simply assign a fixed value here (e.g., "allergy to substance").

11. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31143).
12. **SHALL** contain exactly one [1..1] **participant** (CONF:1098-7402) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-7403).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-7404).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-7405).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1098-7406).
      1. This playingEntity **SHALL** contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1098-7407).
      2. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet **Substance-Reactant for Intolerance** urn:oid:2.16.840.1.113762.1.4.1010.1 **DYNAMIC** (CONF:1098-7419).
13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-32939) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32940).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-32941).
  - c. **SHALL** contain exactly one [1..1] **Allergy Status Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28) (CONF:1098-32942).
14. **SHOULD NOT** contain zero or one [0..1] **entryRelationship** (CONF:1098-9961) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-9962).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-9964).
  - c. **SHALL** contain exactly one [1..1] **Severity Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-15956).
15. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7447) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="MFST" Is Manifestation of (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7907).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7449).
  - c. **SHALL** contain exactly one [1..1] **Reaction Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-15955).
16. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-32910) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32911).
- b. **SHALL** contain exactly one [1..1] @**inversionInd**="true" True (CONF:1098-32912).
- c. **SHALL** contain exactly one [1..1] Criticality Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145) (CONF:1098-32913).

**Figure 227: Allergy - Intolerance Observation (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
    <!-- ** Allergy observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.7" extension="2014-06-09" />
    <id root="901db0f8-9355-4794-81cd-fd951ef07917" />
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
    <!-- Observation statusCode represents the status of the act of observing -->
    <statusCode code="completed" />
    <effectiveTime>
        <!-- The low value reflects the date of onset of the allergy -->
        <low nullFlavor="UNK" />
        <!-- The high value reflects when the allergy was known to be resolved
            (and will generally be absent) -->
    </effectiveTime>
    <value xsi:type="CD" code="419199007" displayName="Allergy to substance"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
    <author>
        <time value="201010110915-0800" />
        <assignedAuthor>
            <id extension="222223333" root="1.1.1.1.1.1.3" />
        </assignedAuthor>
    </author>
    <participant typeCode="CSM">
        <participantRole classCode="MANU">
            <playingEntity classCode="MMAT">
                <code code="2670" displayName="Codeine" codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm" />
            </playingEntity>
        </participantRole>
    </participant>
    <entryRelationship typeCode="MFST" inversionInd="true">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Reaction observation -->
            <templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09" />
            <id root="38c63dea-1a43-4f84-ab71-1ffd04f6a1dd" />
            <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
            <text>
                <reference value="#reaction2" />
            </text>
            <statusCode code="completed" />
            <effectiveTime>
                <low nullFlavor="UNK" />
            </effectiveTime>
            <value xsi:type="CD" code="56018004" displayName="Wheezing"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
        </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <observation classCode="OBS" moodCode="EVN">
            <!-- ** Severity observation -->
            <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />
            <code code="SEV" displayName="Severity Observation"
codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" />
            <text>
                <reference value="#allergyseverity2" />
            </text>
        </observation>
    </entryRelationship>

```

```

<statusCode code="completed" />
    <value xsi:type="CD" code="255604002" displayName="Mild"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
</observation>
</entryRelationship>
</observation>

```

## 4.106 Text Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.12 (open) ]

**Table 495: Text Observation Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">SOP Instance Observation</a> (optional) <a href="#">Quantity Measurement Observation</a> (optional)

DICOM Template 2000 specifies that Imaging Report Elements of Value Type Text are contained in sections. The Imaging Report Elements are inferred from Basic Diagnostic Imaging Report Observations that consist of image references and measurements (linear, area, volume, and numeric). Text DICOM Imaging Report Elements in this context are mapped to CDA text observations that are section components and are related to the SOP Instance Observations (templateId 2.16.840.1.113883.10.20.6.2.8) or Quantity Measurement Observations (templateId 2.16.840.1.113883.10.20.6.2.14) by the SPRT (Support) act relationship.

A Text Observation is required if the findings in the section text are represented as inferred from SOP Instance Observations.

**Table 496: Text Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.12)					
@classCode	1..1	SHALL		<a href="#">81-9288</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = OBS
@moodCode	1..1	SHALL		<a href="#">81-9289</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9290</a>	
@root	1..1	SHALL		<a href="#">81-10534</a>	2.16.840.1.113883.10.20.6.2.12
code	1..1	SHALL		<a href="#">81-9291</a>	
text	0..1	MAY		<a href="#">81-9295</a>	
reference	0..1	SHOULD		<a href="#">81-15938</a>	
@value	0..1	SHOULD		<a href="#">81-15939</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9294</a>	
value	1..1	SHALL	ED	<a href="#">81-9292</a>	
entryRelationship	0..*	MAY		<a href="#">81-9298</a>	
@typeCode	1..1	SHALL		<a href="#">81-9299</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">81-15941</a>	<a href="#">SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.2.6.2.8)</a>
entryRelationship	0..*	MAY		<a href="#">81-9301</a>	
@typeCode	1..1	SHALL		<a href="#">81-9302</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		<a href="#">81-15942</a>	<a href="#">Quantity Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.2.6.2.14)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:81-9288).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9289).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9290) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.12" (CONF:81-10534).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9291).
5. **MAY** contain zero or one [0..1] **text** (CONF:81-9295).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:81-15938).
    - i. The reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:81-15939).
      1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-15940).
  6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9294).
  7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="ED" (CONF:81-9292).
  8. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9298) such that it
    - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9299).
    - b. **SHALL** contain exactly one [1..1] **SOP Instance Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:81-15941).
  9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:81-9301) such that it
    - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9302).
    - b. **SHALL** contain exactly one [1..1] **Quantity Measurement Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.14) (CONF:81-15942).

**Figure 228: Text Observation Example**

```
<text>
  <paragraph>
    <caption>Finding</caption>
    <content ID="Fndng2">The cardiomedastinum is within normal limits. The trachea is midline. The previously described opacity at the medial right lung base has cleared. There are no new infiltrates. There is a new round density at the left hilus, superiorly (diameter about 45mm). A CT scan is recommended for further evaluation. The pleural spaces are clear. The visualized musculoskeletal structures and the upper abdomen are stable and unremarkable.</content>
  </paragraph>
  ...
</text>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <!-- Text Observation -->
    <templateId root="2.16.840.1.113883.10.20.6.2.12"/>
    <code code="121071" codeSystem="1.2.840.10008.2.16.4"
      codeSystemName="DCM" displayName="Finding"/>
    <value xsi:type="ED">
      <reference value="#Fndng2"/>
    </value>
    ...
    <!-- entryRelationships to SOP Instance Observations and Quantity
        Measurement Observations may go here -->
  </observation>
</entry>
```

## 4.107 Tobacco Use (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09  
(open)]

**Table 497: Tobacco Use (V2) Contexts**

Contained By:	Contains:
<a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Social History Section (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents a patient's tobacco use.

All the types of tobacco use are represented using the codes from the tobacco use and exposure-finding hierarchy in SNOMED CT, including codes required for recording smoking status in Meaningful Use Stage 2.

The effectiveTime element is used to describe dates associated with the patient's tobacco use. Whereas the Smoking Status - Meaningful Use (V2) template (2.16.840.1.113883.10.20.22.4.78:2014-06-09) represents a "snapshot in time" observation, simply reflecting what the patient's current smoking status is at the time of the observation, this Tobacco Use template uses effectiveTime to represent the biologically relevant time of the

observation. Thus, to record a former smoker, an observation of "cigarette smoker" will have an effectiveTime/low defining the time the patient started to smoke cigarettes and an effectiveTime/high defining the time the patient ceased to smoke cigarettes. To record a current smoker, the effectiveTime/low will define the time the patient started smoking and will have no effectiveTime/high to indicated that the patient is still smoking.

**Table 498: Tobacco Use (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-16558</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-16559</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-16566</a>	
@root	1..1	SHALL		<a href="#">1098-16567</a>	2.16.840.1.113883.10.20.22.4.8 5
@extension	1..1	SHALL		<a href="#">1098-32589</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-32400</a>	
code	1..1	SHALL		<a href="#">1098-19174</a>	
@code	1..1	SHALL		<a href="#">1098-19175</a>	11367-0
@codeSystem	1..1	SHALL		<a href="#">1098-32172</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-16561</a>	
@code	1..1	SHALL		<a href="#">1098-19118</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-16564</a>	
low	1..1	SHALL		<a href="#">1098-16565</a>	
high	0..1	MAY		<a href="#">1098-31431</a>	
value	1..1	SHALL	CD	<a href="#">1098-16562</a>	urn:oid:2.16.840.1.113883.11.2 0.9.41 (Tobacco Use)
author	0..*	SHOULD		<a href="#">1098-31152</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-16558).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-16559).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-16566) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.85" (CONF:1098-16567).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32589).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-32400).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19174).
  - a. This code **SHALL** contain exactly one [1..1] @code="11367-0" History of tobacco use (CONF:1098-19175).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-32172).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-16561).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19118).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-16564).

Note: The effectiveTime represents the biologically relevant time of the observation. A "former smoker" is recorded with the proper code "current smoker" with an effectiveTime/low and effectiveTime/high defining the time during which the patient was a smoker.

  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1098-16565).
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1098-31431).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Tobacco Use](#) urn:oid:2.16.840.1.113883.11.20.9.41 **DYNAMIC** (CONF:1098-16562).
9. **SHOULD** contain zero or more [0..\*] [\*\*Author Participation\*\*](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31152).

**Table 499: Tobacco Use**

Value Set: Tobacco Use urn:oid:2.16.840.1.113883.11.20.9.41 Contains values descending from the SNOMED CT® Finding of tobacco use and exposure (finding) (365980008) hierarchy excluding temporal findings such as 'Former Smoker' 'Never Chewed', etc. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
81703003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Chews tobacco
228494002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Snuff user
59978006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Cigar smoker
43381005	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Passive smoker
228524006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Exposed to tobacco smoke at home
427189007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Maternal tobacco use
394871007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Thinking about stopping smoking
65568007	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Cigarette smoker
160619003	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Rolls own cigarettes
266927001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Pipe smoker
...			

**Figure 229: Tobacco Use (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
    <!-- ** Tobacco use -->
    <templateId root="2.16.840.1.113883.10.20.22.4.85" extension="2014-06-09" />
    <id root="45efb604-7049-4a2e-ad33-d38556c9636c" />
    <code code="11367-0" codeSystem="2.16.840.1.113883.6.1" displayName="History of tobacco
use" />
    <statusCode code="completed" />
    <effectiveTime>
        <!-- The low value reflects the start date of the observation/value (moderate
smoker) -->
        <low value="20090214" />
        <!-- The high value reflects the end date of the observation/value (moderate
smoker) -->
        <high value="20110215" />
    </effectiveTime>
    <value xsi:type="CD" code="160604004" displayName="Moderate cigarette smoker, 10-
19/day" codeSystem="2.16.840.1.113883.6.96" />
    <author typeCode="AUT">
        <time value="201209101145-0800" />
        <assignedAuthor>
            <id extension="555555555" root="1.1.1.1.1.1.2" />
        </assignedAuthor>
    </author>
</observation>

```

## 4.108 Vital Sign Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09  
(open)]

**Table 500: Vital Sign Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Vital Signs Organizer (V3)</a> (required) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents measurement of common vital signs. Vital signs are represented with additional vocabulary constraints for type of vital sign and unit of measure.

The following is a list of recommended units for common types of vital sign measurements:

Name	Unit
PulseOx	%
Height/Head Circumf	cm
Weight	kg
Temp	Cel
BP	mm[Hg]
Pulse/Resp Rate	/min

Name	Unit
BMI	kg/m2
BSA	m2

**Table 501: Vital Sign Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7297</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7298</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7299</a>	
@root	1..1	SHALL		<a href="#">1098-10527</a>	2.16.840.1.113883.10.20.22.4.2 7
@extension	1..1	SHALL		<a href="#">1098-32574</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7300</a>	
code	1..1	SHALL		<a href="#">1098-7301</a>	
@code	0..1	SHOULD		<a href="#">1098-32934</a>	urn:oid:2.16.840.1.113883.3.88. 12.80.62 (Vital Sign Result Type)
statusCode	1..1	SHALL		<a href="#">1098-7303</a>	
@code	1..1	SHALL		<a href="#">1098-19119</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-7304</a>	
value	1..1	SHALL	PQ	<a href="#">1098-7305</a>	
@unit	1..1	SHALL		<a href="#">1098-31579</a>	urn:oid:2.16.840.1.113883.1.11. 12839 (UnitsOfMeasureCaseSensitive)
interpretationCode	0..1	MAY		<a href="#">1098-7307</a>	
@code	1..1	SHALL		<a href="#">1098-32886</a>	urn:oid:2.16.840.1.113883.1.11. 78 (Observation Interpretation (HL7))
methodCode	0..1	MAY	SET<C-E>	<a href="#">1098-7308</a>	
targetSiteCode	0..1	MAY	SET<C-D>	<a href="#">1098-7309</a>	
author	0..*	SHOULD		<a href="#">1098-7310</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.2 0.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7297).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7298).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7299) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:1098-10527).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32574).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7300).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-7301).
  - a. This code **SHOULD** contain zero or one [0..1] @code, which **SHOULD** be selected from ValueSet [Vital Sign Result Type](#) urn:oid:2.16.840.1.113883.3.88.12.80.62 **DYNAMIC** (CONF:1098-32934).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7303).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19119).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-7304).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1098-7305).
  - a. This value **SHALL** contain exactly one [1..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-31579).
9. **MAY** contain zero or one [0..1] **interpretationCode** (CONF:1098-7307).
  - a. The interpretationCode, if present, **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [Observation Interpretation \(HL7\)](#) urn:oid:2.16.840.1.113883.1.11.78 **DYNAMIC** (CONF:1098-32886).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-7308).
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:1098-7309).
12. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-7310).

**Table 502: Vital Sign Result Type**

Value Set: Vital Sign Result Type urn:oid:2.16.840.1.113883.3.88.12.80.62 (Clinical Focus: A clinical observation classified as a vital sign, optionally including a method),(Data Element Scope: observation),(Inclusion Criteria: Specific set of concepts selected),(Exclusion Criteria: None needed)			
This value set was imported on 9/22/2017 with a version of 20170922.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62/expansion</a>			
Code	Code System	Code System OID	Print Name
29463-7	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body weight
3140-1	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body surface area Derived from formula
39156-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body mass index (BMI) [Ratio]
59408-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Oxygen saturation in Arterial blood by Pulse oximetry
8287-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Head Occipital-frontal circumference by Tape measure
8302-2	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body height
8306-3	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body height --lying
8310-5	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Body temperature
8462-4	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Diastolic blood pressure
8480-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Systolic blood pressure
...			

**Figure 230: Vital Sign Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.27" extension="2014-06-09" />
  <!-- Vital Sign Observation template -->
  <id root="c6f88321-67ad-11db-bd13-0800200c9a66" />
  <code code="8302-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Height" />
  <statusCode code="completed" />
  <effectiveTime value="20121114" />
  <value xsi:type="PQ" value="177" unit="cm" />
  ....
</observation>
```

## 4.109 Vital Signs Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01  
(open)]

**Table 503: Vital Signs Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Vital Signs Section (entries optional) (V3)</a> (optional)	<a href="#">Vital Sign Observation (V2)</a> (required)
<a href="#">Vital Signs Section (entries required) (V3)</a> (required)	<a href="#">Author Participation</a> (optional)

This template provides a mechanism for grouping vital signs (e.g., grouping systolic blood pressure and diastolic blood pressure).

**Table 504: Vital Signs Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7279</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1198-7280</a>	urn:oid:2.16.840.1.113883.5.10 01 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7281</a>	
@root	1..1	SHALL		<a href="#">1198-10528</a>	2.16.840.1.113883.10.20.22.4.26
@extension	1..1	SHALL		<a href="#">1198-32582</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-7282</a>	
code	1..1	SHALL		<a href="#">1198-32740</a>	
@code	1..1	SHALL		<a href="#">1198-32741</a>	46680005
@codeSystem	1..1	SHALL		<a href="#">1198-32742</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
translation	1..1	SHALL		<a href="#">1198-32743</a>	
@code	1..1	SHALL		<a href="#">1198-32744</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 74728-7
@codeSystem	1..1	SHALL		<a href="#">1198-32746</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1198-7284</a>	
@code	1..1	SHALL		<a href="#">1198-19120</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-7288</a>	
author	0..*	SHOULD		<a href="#">1198-31153</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
component	1..*	SHALL		<a href="#">1198-7285</a>	
observation	1..1	SHALL		<a href="#">1198-15946</a>	<a href="#">Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" CLUSTER (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7279).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7280).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7281) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.26" (CONF:1198-10528).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32582).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-7282).

Compatibility support for C-CDA R1.1 and C-CDA 2.1: A vitals organizer conformant to both C-CDA 1.1 and C-CDA 2.1 would contain the SNOMED code (46680005) from R1.1 in the root code and a LOINC code in the translation. A vitals organizer conformant to only C-CDA 2.1 would only contain the LOINC code in the root code.

5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-32740).
  - a. This code **SHALL** contain exactly one [1..1] @code="46680005" Vital Signs (CONF:1198-32741).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" SNOMED CT (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1198-32742).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:1198-32743) such that it
    - i. **SHALL** contain exactly one [1..1] @code="74728-7" Vital signs, weight, height, head circumference, oximetry, BMI, and BSA panel - HL7.CCDAr1.1 (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32744).
    - ii. **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32746).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7284).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19120).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-7288).  
Note: The effectiveTime may be a timestamp or an interval that spans the effectiveTimes of the contained vital signs observations.
8. **SHOULD** contain zero or more [0..\*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31153).
9. **SHALL** contain at least one [1..\*] **component** (CONF:1198-7285) such that it
  - a. **SHALL** contain exactly one [1..1] **Vital Sign Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09) (CONF:1198-15946).

**Figure 231: Vital Signs Organizer (V3) Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
    <!-- ** Vital signs organizer ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.26" extension="2015-08-01" />
    <id root="24f6ad18-c512-40fc-82bd-1e131aa9e52b" />
    <code code="46680005" displayName="Vital Signs"
          codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT">
        <translation code="74728-7"
                    displayName="Vital signs, weight, height, head
circumference, oximetry, BMI, and BSA panel "
                    codeSystem="2.16.840.1.113883.6.1"
                    codeSystemName="LOINC"></translation>
    </code>
    <statusCode code="completed" />
    <effectiveTime>
        <low value="20120910" />
        <high value="20120910" />
    </effectiveTime>
    <component>
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.27" extension="2014-06-09" />
            <!-- Vital Sign Observation template -->
            ...
            </observation>
        </component>
        <component>
            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.27" extension="2014-06-09" />
                <!-- Vital Sign Observation template -->
                ...
                </observation>
            </component>
            <component>
                <observation classCode="OBS" moodCode="EVN">
                    <templateId root="2.16.840.1.113883.10.20.22.4.27" extension="2014-06-09" />
                    <!-- Vital Sign Observation template -->
                    ...
                    </observation>
                </component>
            </organizer>
```

## 4.110 Wound Characteristic

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.134 (open) ]

**Table 505: Wound Characteristic Contexts**

Contained By:	Contains:
<a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)	

This template represents characteristics of a wound (e.g., integrity of suture line, odor, erythema).

**Table 506: Wound Characteristic Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.134)					
@classCode	1..1	SHALL		<a href="#">1098-29938</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-29939</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-29940</a>	
@root	1..1	SHALL		<a href="#">1098-29941</a>	2.16.840.1.113883.10.20.22.4.134
id	1..*	SHALL		<a href="#">1098-29942</a>	
code	1..1	SHALL		<a href="#">1098-29943</a>	
@code	1..1	SHALL		<a href="#">1098-31540</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-31541</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-29944</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-29946</a>	
value	1..1	SHALL	CD	<a href="#">1098-29947</a>	urn:oid:2.16.840.1.113883.11.20.9.58 (Wound Characteristic)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-29938).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-29939).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-29940) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.134" (CONF:1098-29941).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-29942).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29943).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" assertion (CONF:1098-31540).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31541).
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-29944).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-29946).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Wound Characteristic](#) urn:oid:2.16.840.1.113883.11.20.9.58 **DYNAMIC** (CONF:1098-29947).

**Table 507: Wound Characteristic**

Value Set: Wound Characteristic urn:oid:2.16.840.1.113883.11.20.9.58 A value set of SNOMED-CT codes primarily selected from codes descending from 225552003 "Wound finding".  Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
239165001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound granuloma
239163008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound erythema
409590008	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Skin eschar
449746002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound slough
445916002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound odor
239164002	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound discharge
447547000	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Offensive wound odor
271618001	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Impaired wound healing
449744004	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Induration of wound
298008006	SNOMED CT	urn:oid:2.16.840.1.11388 3.6.96	Wound moist
...			

**Figure 232: Wound Characteristic Example**

```
<entryRelationship typeCode="COMP">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Wound Characteristic -->
    <templateId root="2.16.840.1.113883.10.20.22.4.134" />
    <id root="763428a0-eb35-11e2-91e2-0700200c9a66" />
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
    <statusCode code="completed" />
    <effectiveTime value="20013103" />
    <value xsi:type="CD" code="447547000" displayName="Offensive wound odor"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
  </observation>
</entryRelationship>
```

## 4.111 Wound Measurement Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.133 (open) ]

**Table 508: Wound Measurement Observation Contexts**

Contained By:	Contains:
<a href="#">Longitudinal Care Wound Observation (V2)</a> (optional)	

This template represents the Wound Measurement Observations of wound width, depth and length.

**Table 509: Wound Measurement Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.133)					
@classCode	1..1	SHALL		<a href="#">1098-29926</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-29927</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-29928</a>	
@root	1..1	SHALL		<a href="#">1098-29929</a>	2.16.840.1.113883.10.20.22.4.133
id	1..*	SHALL		<a href="#">1098-29930</a>	
code	1..1	SHALL		<a href="#">1098-29931</a>	urn:oid:2.16.840.1.113883.1.11.20.2.5 (Wound Measurements)
statusCode	1..1	SHALL		<a href="#">1098-29933</a>	
@code	1..1	SHALL		<a href="#">1098-29934</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-29935</a>	
value	1..1	SHALL	PQ	<a href="#">1098-29936</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-29926).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-29927).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29928) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.133"** (CONF:1098-29929).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-29930).
5. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [Wound Measurements](#) urn:oid:2.16.840.1.113883.1.11.20.2.5 **DYNAMIC** (CONF:1098-29931).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-29933).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-29934).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-29935).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1098-29936).

**Table 510: Wound Measurements**

Value Set: Wound Measurements urn:oid:2.16.840.1.113883.1.11.20.2.5 A value set of SNOMED-CT codes to capture the dimensions of a wound.			
Specific URL Pending Value Set Source: <a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>			
Code	Code System	Code System OID	Print Name
39125-0	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Width of Wound
39127-6	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Depth of Wound
39126-8	LOINC	urn:oid:2.16.840.1.11388 3.6.1	Length of Wound

**Figure 233: Wound Measurement Observation Example**

```
<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <!-- Wound Measurements Observation . -->
        <templateId root="2.16.840.1.113883.10.20.22.4.133" />
        <id root="d2b46280-eb34-11e2-91e2-0800200c9a66" />
        <code code=" 401238003" codeSystem="2.16.840.1.113883.6.96" displayName="Length of
Wound" />
        <statusCode code="completed" />
        <effectiveTime value="20013103" />
        <value xsi:type="PQ" value="2" unit="[in_i]" />
    </observation>
</entryRelationship>
```

## 5 PARTICIPATION AND OTHER TEMPLATES

The participation and other templates chapter contains templates for CDA participations (e.g., author, performer), and other fielded items (e.g., address, name) that cannot stand on their own without being nested in another template .

## 5.1 Author Participation

[author: identifier urn:oid:2.16.840.1.113883.10.20.22.4.119 (open) ]

**Table 511: Author Participation Contexts**

Contained By:	Contains:
<a href="#">Comment Activity</a> (optional) <a href="#">Sensory Status</a> (optional) <a href="#">Self-Care Activities (ADL and IADL)</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Goal Observation</a> (optional) <a href="#">Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Nutrition Assessment</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Functional Status Observation (V2)</a> (optional) <a href="#">Functional Status Organizer (V2)</a> (optional) <a href="#">Handoff Communication Participants</a> (required) <a href="#">Patient Referral Act</a> (optional) <a href="#">Smoking Status - Meaningful Use (V2)</a> (optional) <a href="#">Vital Sign Observation (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Tobacco Use (V2)</a> (optional) <a href="#">Outcome Observation</a> (optional) <a href="#">Planned Coverage</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Vital Signs Organizer (V3)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Result Observation (V3)</a> (optional) <a href="#">Mental Status Observation (V3)</a> (optional) <a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Social History Observation (V3)</a> (optional) <a href="#">Health Concern Act (V2)</a> (optional) <a href="#">Result Organizer (V3)</a> (optional) <a href="#">Advance Directive Organizer (V2)</a> (optional) <a href="#">Risk Concern Act (V2)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional)	

Contained By:	Contains:
<a href="#">Longitudinal Care Wound Observation (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional) <a href="#">Allergy Concern Act (V3)</a> (optional)	

This template represents the Author Participation (including the author timestamp). CDA R2 requires that Author and Author timestamp be asserted in the document header. From there, authorship propagates to contained sections and contained entries, unless explicitly overridden.

The Author Participation template was added to those templates in scope for analysis in R2. Although it is not explicitly stated in all templates the Author Participation template can be used in any template.

**Table 512: Author Participation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
author (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)					
templateId	1..1	SHALL		<a href="#">1098-32017</a>	
@root	1..1	SHALL		<a href="#">1098-32018</a>	2.16.840.1.113883.10.20.22.4.19
time	1..1	SHALL		<a href="#">1098-31471</a>	
assignedAuthor	1..1	SHALL		<a href="#">1098-31472</a>	
id	1..*	SHALL		<a href="#">1098-31473</a>	
code	0..1	SHOULD		<a href="#">1098-31671</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA))
assignedPerson	0..1	MAY		<a href="#">1098-31474</a>	
name	0..*	MAY		<a href="#">1098-31475</a>	
representedOrganization	0..1	MAY		<a href="#">1098-31476</a>	
id	0..*	MAY		<a href="#">1098-31478</a>	
name	0..*	MAY		<a href="#">1098-31479</a>	
telecom	0..*	MAY		<a href="#">1098-31480</a>	
addr	0..*	MAY		<a href="#">1098-31481</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-32017) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.119" (CONF:1098-32018).
2. **SHALL** contain exactly one [1..1] **time** (CONF:1098-31471).
3. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1098-31472).
  - a. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:1098-31473).

Note: This id may be set equal to (a pointer to) an id on a participant elsewhere in the document (header or entries) or a new author participant can be described here. If the id is pointing to a participant already described elsewhere in the document, assignedAuthor/id is sufficient to identify this participant and none of the remaining details of assignedAuthor are required to be set. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. This id must be a pointer to another author participant.

    - i. If the ID isn't referencing an author described elsewhere in the document, then the author components required in US Realm Header are required here as well (CONF:1098-32628).
  - b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(HIPAA\)](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1098-31671).
    - i. If the content is patient authored the code **SHOULD** be selected from Personal And Legal Relationship Role Type (2.16.840.1.113883.11.20.12.1) (CONF:1098-32315).
  - c. This assignedAuthor **MAY** contain zero or one [0..1] **assignedPerson** (CONF:1098-31474).
    - i. The assignedPerson, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-31475).
  - d. This assignedAuthor **MAY** contain zero or one [0..1] **representedOrganization** (CONF:1098-31476).
    - i. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **id** (CONF:1098-31478).
    - ii. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-31479).
    - iii. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **telecom** (CONF:1098-31480).
    - iv. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **addr** (CONF:1098-31481).

**Figure 234: New Author Participant Example**

```
<author>
  <templateId root="2.16.840.1.113883.10.20.22.4.119" />
  <time value="201308011235-0800" />
  <assignedAuthor>
    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
    <code code="163W00000X" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health
Care Provider Taxonomy" displayName="Registered nurse" />
    <assignedPerson>
      <name>
        <given>Nurse</given>
        <family>Nightingale</family>
        <suffix>RN</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" />
      <name>Good Health Hospital</name>
    </representedOrganization>
  </assignedAuthor>
</author>
```

**Figure 235: Existing Author Reference Example**

```
<author>
  <time value="201308011235-0800" />
  <assignedAuthor>
    <!--
      This id points to a participant already described
      elsewhere in the document
    -->
    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
  </assignedAuthor>
</author>
```

## 5.2 Physician of Record Participant (V2)

[encounterParticipant: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.6.2.2:2014-06-09 (open) ]

**Table 513: Physician of Record Participant (V2) Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (optional)

This encounterParticipant is the attending physician and is usually different from the Physician Reading Study Performer defined in documentationOf/serviceEvent.

**Table 514: Physician of Record Participant (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
encounterParticipant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.6.2.2:2014-06-09)					
@typeCode	1..1	SHALL		<a href="#">1098-8881</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = ATND
templateId	1..1	SHALL		<a href="#">1098-16072</a>	
@root	1..1	SHALL		<a href="#">1098-16073</a>	2.16.840.1.113883.10.20.6.2.2
@extension	1..1	SHALL		<a href="#">1098-32586</a>	2014-06-09
assignedEntity	1..1	SHALL		<a href="#">1098-8886</a>	
id	1..*	SHALL		<a href="#">1098-8887</a>	
code	1..1	SHALL		<a href="#">1098-8888</a>	
assignedPerson	0..1	SHOULD		<a href="#">1098-30928</a>	
name	1..1	SHALL		<a href="#">1098-30929</a>	<a href="#">US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.2.2.5.1.1</a>
representedOrganization	0..1	MAY		<a href="#">1098-16074</a>	
name	0..1	SHOULD		<a href="#">1098-16075</a>	

1. **SHALL** contain exactly one [1..1] @typeCode="ATND" Attender (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8881).
2. **SHALL** contain exactly one [1..1] templateId (CONF:1098-16072) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.6.2.2" (CONF:1098-16073).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32586).
3. **SHALL** contain exactly one [1..1] assignedEntity (CONF:1098-8886).
  - a. This assignedEntity **SHALL** contain at least one [1..\*] id (CONF:1098-8887).
    - i. **SHOULD** contain zero or one [0..1] id such that @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1098-31203).
  - b. This assignedEntity **SHALL** contain exactly one [1..1] code (CONF:1098-8888).
    - i. **SHALL** contain a valid DICOM Organizational Role from DICOM CID 7452 (Value Set 1.2.840.10008.6.1.516) (@codeSystem is 1.2.840.10008.2.16.4) or an appropriate national health care provider coding system (e.g., NUCC in the U.S., where @codeSystem is

2.16.840.1.113883.6.101). Footnote: DICOM Part 16 (NEMA PS3.16), page 631 in the 2011 edition. See **Error! Hyperlink reference not valid.** (CONF:1098-8889).

- c. This assignedEntity **SHOULD** contain zero or one [0..1] **assignedPerson** (CONF:1098-30928).
  - i. The assignedPerson, if present, **SHALL** contain exactly one [1..1] [\*\*US Realm Person Name \(PN.US.FIELDED\)\*\*](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1098-30929).
- d. This assignedEntity **MAY** contain zero or one [0..1] **representedOrganization** (CONF:1098-16074).
  - i. The representedOrganization, if present, **SHOULD** contain zero or one [0..1] **name** (CONF:1098-16075).

**Figure 236: Physician of Record Participant (V2) Example**

```
<encounterParticipant typeCode="ATND">
  <templateId root="2.16.840.1.113883.10.20.6.2.2" extension="2014-06-09" />
  <assignedEntity>
    <id extension="44444444" root="2.16.840.1.113883.4.6" />
    <code code="208D0000X" codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC"
displayName="General Practice" />
    <addr nullFlavor="NI" />
    <telecom nullFlavor="NI" />
    <assignedPerson>
      <name>
        <prefix>Dr.</prefix>
        <given>Fay</given>
        <family>Family</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</encounterParticipant>
```

### 5.3 Physician Reading Study Performer (V2)

[performer: identifier urn:hl7ii:2.16.840.1.113883.10.20.6.2.1:2014-06-09  
(open)]

**Table 515: Physician Reading Study Performer (V2) Contexts**

Contained By:	Contains:
<a href="#">Diagnostic Imaging Report (V3)</a> (optional)	<a href="#">US Realm Date and Time (DT.US.FIELDED)</a> (optional)

This participant is the Physician Reading Study Performer defined in documentationOf/serviceEvent. It is usually different from the attending physician. The reading physician interprets the images and evidence of the study (DICOM Definition).

**Table 516: Physician Reading Study Performer (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
performer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.6.2.1:2014-06-09)					
@typeCode	1..1	SHALL		<a href="#">1098-8424</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PRF
templateId	1..1	SHALL		<a href="#">1098-30773</a>	
@root	1..1	SHALL		<a href="#">1098-30774</a>	2.16.840.1.113883.10.20.6.2.1
@extension	1..1	SHALL		<a href="#">1098-32564</a>	2014-06-09
time	0..1	MAY		<a href="#">1098-8425</a>	<a href="#">US Realm Date and Time (DT.US.FIELDED)</a> (identifier: urn:oid:2.16.840.1.113883.10.2.0.22.5.3)
assignedEntity	1..1	SHALL		<a href="#">1098-8426</a>	
id	1..*	SHALL		<a href="#">1098-10033</a>	
code	1..1	SHALL		<a href="#">1098-8427</a>	

1. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** Performer (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8424).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30773).
  - a. This templateId **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.6.2.1"** (CONF:1098-30774).
  - b. This templateId **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32564).
3. **MAY** contain zero or one [0..1] [US Realm Date and Time \(DT.US.FIELDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:1098-8425).
4. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8426).
  - a. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-10033).
  - b. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:1098-8427).
    - i. **SHALL** contain a valid DICOM personal identification code sequence (@codeSystem is 1.2.840.10008.2.16.4) or an appropriate national health care provider coding system (e.g., NUCC in the U.S., where @codeSystem is 2.16.840.1.113883.6.101) (CONF:1098-8428).
  - c. Every assignedEntity element **SHALL** contain at least one [1..\*] assignedPerson or representedOrganization (CONF:1098-8429).
  - d. The id **SHOULD** include zero or one [0..1] **id** where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1098-32135).

**Figure 237: Physician Reading Study Performer (V2) Example**

```
<performer typeCode="PRF">
  <templateId root="2.16.840.1.113883.10.20.6.2.1" extension="2014-06-09" />
  <assignedEntity>
    <id extension="111111111" root="2.16.840.1.113883.4.6" />
    <code code="2085R0202X" codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC"
displayName="Diagnostic Radiology" />
    <addr nullFlavor="NI" />
    <telecom nullFlavor="NI" />
    <assignedPerson>
      <name>
        <given>Christine</given>
        <family>Cure</family>
        <suffix>MD</suffix>
      </name>
    </assignedPerson>
  </assignedEntity>
</performer>
```

## 5.4 US Realm Address (AD.US.FIELDED)

[addr: identifier urn:oid:2.16.840.1.113883.10.20.22.5.2 (open) ]

**Table 517: US Realm Address (AD.US.FIELDED) Contexts**

Contained By:	Contains:
<a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Policy Activity (V3)</a> (optional) <a href="#">US Realm Header (V3)</a> (optional) <a href="#">US Realm Header (V3)</a> (required)	

Reusable address template, for use in US Realm CDA Header.

**Table 518: US Realm Address (AD.US.FIELDDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
addr (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)					
@use	0..1	SHOULD		<a href="#">81-7290</a>	urn:oid:2.16.840.1.113883.1.11.10637 (PostalAddressUse)
country	0..1	SHOULD		<a href="#">81-7295</a>	urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country)
state	0..1	SHOULD		<a href="#">81-7293</a>	urn:oid:2.16.840.1.113883.3.88.12.80.1 (StateValueSet)
city	1..1	SHALL		<a href="#">81-7292</a>	
postalCode	0..1	SHOULD		<a href="#">81-7294</a>	urn:oid:2.16.840.1.113883.3.88.12.80.2 (PostalCode)
streetAddressLine	1..4	SHALL		<a href="#">81-7291</a>	

If addr/@nullFlavor is present, the remaining conformance statements **SHALL NOT** be enforced

1. **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [PostalAddressUse](#) urn:oid:2.16.840.1.113883.1.11.10637 **STATIC** 2005-05-01 (CONF:81-7290).
2. **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet [Country](#) urn:oid:2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:81-7295).
3. **SHOULD** contain zero or one [0..1] **state** (ValueSet: [StateValueSet](#) urn:oid:2.16.840.1.113883.3.88.12.80.1 **DYNAMIC**) (CONF:81-7293).
  - a. If the country is US, the state element is required but **SHOULD** have @nullFlavor if the state is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:81-10024).
4. **SHALL** contain exactly one [1..1] **city** (CONF:81-7292).
5. **SHOULD** contain zero or one [0..1] **postalCode**, which **SHOULD** be selected from ValueSet [PostalCode](#) urn:oid:2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:81-7294).
  - a. If the country is US, the postalCode element is required but **SHOULD** have @nullFlavor if the postalCode is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:81-10025).
6. **SHALL** contain at least one and not more than 4 **streetAddressLine** (CONF:81-7291).
7. **SHALL NOT** have mixed content except for white space (CONF:81-7296).

**Table 519: PostalAddressUse**

Value Set: PostalAddressUse urn:oid:2.16.840.1.113883.1.11.10637 A value set of HL7 Codes for address use. Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
BAD	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	bad address
CONF	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	confidential
DIR	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	direct
H	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	home address
HP	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	primary home
HV	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	vacation home
PHYS	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	physical visit address
PST	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	postal address
PUB	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	public
TMP	HL7AddressUse	urn:oid:2.16.840.1.11388 3.5.1119	temporary
...			

**Table 520: StateValueSet**

Value Set: StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1 Identifies addresses within the United States are recorded using the FIPS 5-2 two-letter alphabetic codes for the State, District of Columbia, or an outlying area of the United States or associated area Value Set Source: <a href="http://www.census.gov/geo/reference/ansi_statetables.html">http://www.census.gov/geo/reference/ansi_statetables.html</a>			
Code	Code System	Code System OID	Print Name
AL	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Alabama
AK	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Alaska
AZ	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Arizona
AR	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Arkansas
CA	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	California
CO	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Colorado
CT	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Connecticut
DE	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Delaware
DC	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	District of Columbia
FL	FIPS 5-2 (State)	urn:oid:2.16.840.1.11388 3.6.92	Florida
...			

**Table 521: PostalCode**

Value Set: PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 A value set of postal (ZIP) Code of an address in the United States Value Set Source: <a href="http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000">http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000</a>			
Code	Code System	Code System OID	Print Name
19009	USPostalCodes	urn:oid:2.16.840.1.11388 3.6.231	Bryn Athyn
92869-1736	USPostalCodes	urn:oid:2.16.840.1.11388 3.6.231	Orange, CA
32830-8413	USPostalCodes	urn:oid:2.16.840.1.11388 3.6.231	Lake Buena Vista, FL
...			

**Figure 238: US Realm Address Example**

```
<addr use="HP">
  <streetAddressLine>22 Sample Street</streetAddressLine>
  <city>Beaverton</city>
  <state>OR</state>
  <postalCode>97867</postalCode>
  <country>US</country>
</addr>
```

## 5.5 US Realm Date and Time (DT.US.FIELDED)

[effectiveTime: identifier urn:oid:2.16.840.1.113883.10.20.22.5.3 (open) ]

**Table 522: US Realm Date and Time (DT.US.FIELDED) Contexts**

Contained By:	Contains:
<a href="#">Physician Reading Study Performer (V2)</a> (optional) <a href="#">Consultation Note (V3)</a> (required) <a href="#">History and Physical (V3)</a> (required) <a href="#">Progress Note (V3)</a> (optional) <a href="#">Progress Note (V3)</a> (required) <a href="#">Procedure Note (V3)</a> (required) <a href="#">Operative Note (V3)</a> (required) <a href="#">Diagnostic Imaging Report (V3)</a> (optional)	

The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement.

This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with elements having a datatype of IVL\_TS.

**Table 523: US Realm Date and Time (DT.US.FIELDED) Constraints Overview**

X	Card	Verb	Data Type	CONF #	Value
effectiveTime (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3)					

1. **SHALL** be precise to the day (CONF:81-10078).
2. **SHOULD** be precise to the minute (CONF:81-10079).
3. **MAY** be precise to the second (CONF:81-10080).
4. If more precise than day, **SHOULD** include time-zone offset (CONF:81-10081).

## 5.6 US Realm Date and Time (DTM.US.FIELDDED)

[effectiveTime: identifier urn:oid:2.16.840.1.113883.10.20.22.5.4 (open) ]

**Table 524: US Realm Date and Time (DTM.US.FIELDDED) Contexts**

Contained By:	Contains:
<a href="#">US Realm Header (V3)</a> (optional) <a href="#">US Realm Header (V3)</a> (required)	

The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement.

This data type uses the same rules as US Realm Date and Time (DT.US.FIELDDED), but is used with elements having a datatype of TS.

**Table 525: US Realm Date and Time (DTM.US.FIELDDED) Constraints Overview**

X P a t h	Card	Verb	Data Type	CONF #	Value
effectiveTime (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)					

1. **SHALL** be precise to the day (CONF:81-10127).
2. **SHOULD** be precise to the minute (CONF:81-10128).
3. **MAY** be precise to the second (CONF:81-10129).
4. If more precise than day, **SHOULD** include time-zone offset (CONF:81-10130).

**Figure 239: US Realm Date and Time Example**

```
<!-- Common values for date/time elements would range in precision to the day YYYYMMDD to
precision to the second with a time zone offset YYYYMMDDHHMMSS - ZZZZ -->
<!-- time element with TS data type precise to the day for a birthdate -->
<time value="19800531"/>
<!-- effectiveTime element with IVL<TS> data type precise to the second for an observation
-->
<effectiveTime>
  <low value='20110706122735-0800' />
  <high value='20110706122815-0800' />
</effectiveTime>
```

## 5.7 US Realm Patient Name (PTN.US.FIELDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1 (open) ]

**Table 526: US Realm Patient Name (PTN.US.FIELDED) Contexts**

Contained By:	Contains:
<a href="#">Referral Note (V2)</a> (optional) <a href="#">US Realm Header (V3)</a> (required)	

The US Realm Patient Name datatype flavor is a set of reusable constraints that can be used for the patient or any other person. It requires a first (given) and last (family) name. If a patient or person has only one name part (e.g., patient with first name only) place the name part in the field required by the organization. Use the appropriate nullFlavor, "Not Applicable" (NA), in the other field.

For information on mixed content see the Extensible Markup Language reference (<http://www.w3c.org/TR/2008/REC-xml-20081126/>).

**Table 527: US Realm Patient Name (PTN.US.FIELDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1)					
@use	0..1	MAY		<a href="#">81-7154</a>	urn:oid:2.16.840.1.113883.1.11.15913 (EntityNameUse)
family	1..1	SHALL	ST	<a href="#">81-7159</a>	
@qualifier	0..1	MAY		<a href="#">81-7160</a>	urn:oid:2.16.840.1.113883.11.2.0.9.26 (EntityPersonNamePartQualifier)
given	1..*	SHALL	ST	<a href="#">81-7157</a>	
@qualifier	0..1	MAY		<a href="#">81-7158</a>	urn:oid:2.16.840.1.113883.11.2.0.9.26 (EntityPersonNamePartQualifier)
prefix	0..*	MAY	ST	<a href="#">81-7155</a>	
@qualifier	0..1	MAY		<a href="#">81-7156</a>	urn:oid:2.16.840.1.113883.11.2.0.9.26 (EntityPersonNamePartQualifier)
suffix	0..1	MAY	ST	<a href="#">81-7161</a>	
@qualifier	0..1	MAY		<a href="#">81-7162</a>	urn:oid:2.16.840.1.113883.11.2.0.9.26 (EntityPersonNamePartQualifier)

If name/@nullFlavor is present, the remaining conformance statements **SHALL NOT** be enforced

1. **MAY** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [EntityNameUse](#)  
urn:oid:2.16.840.1.113883.1.11.15913 **STATIC** 2005-05-01 (CONF:81-7154).
2. **SHALL** contain exactly one [1..1] **family** (CONF:81-7159).
  - a. This family **MAY** contain zero or one [0..1] **@qualifier**, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#)  
urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7160).
3. **SHALL** contain at least one [1..\*] **given** (CONF:81-7157).
  - a. Such givens **MAY** contain zero or one [0..1] **@qualifier**, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#)  
urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7158).
  - b. The second occurrence of given (given2]) if provided, **SHALL** include middle name or middle initial (CONF:81-7163).
4. **MAY** contain zero or more [0..\*] **prefix** (CONF:81-7155).
  - a. The prefix, if present, **MAY** contain zero or one [0..1] **@qualifier**, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#)  
urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7156).
5. **MAY** contain zero or one [0..1] **suffix** (CONF:81-7161).
  - a. The suffix, if present, **MAY** contain zero or one [0..1] **@qualifier**, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#)  
urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7162).
6. **SHALL NOT** have mixed content except for white space (CONF:81-7278).

**Table 528: EntityNameUse**

Value Set: EntityNameUse urn:oid:2.16.840.1.113883.1.11.15913 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
A	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Artist/Stage
ABC	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Alphabetic
ASGN	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Assigned
C	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	License
I	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Indigenous/Tribal
IDE	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Ideographic
L	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Legal
P	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Pseudonym
PHON	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Phonetic
R	HL7EntityNameUse	urn:oid:2.16.840.1.11388 3.5.45	Religious
...			

**Table 529: EntityPersonNamePartQualifier**

Value Set: EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26			
Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
AC	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	academic
AD	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	adopted
BR	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	birth
CL	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	callme
IN	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	initial
NB	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	nobility
PR	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	professional
SP	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	spouse
TITLE	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	title
VV	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.11388 3.5.43	voorvoegsel

**Figure 240: US Realm Patient Name Example**

```
<name use="L">
  <prefix qualifier="TITLE">Rep</suffix>
  <given>Evelyn</given>
  <given qualifier="CL">Eve</given>
  <family qualifier="BR">Everywoman</family>
  <suffix qualifier="AC">J.D.</suffix>
</name>
```

## 5.8 US Realm Person Name (PN.US.FIELDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1.1 (open)]

**Table 530: US Realm Person Name (PN.US.FIELDED) Contexts**

Contained By:	Contains:
<a href="#">Drug Monitoring Act</a> (required) <a href="#">Physician of Record Participant (V2)</a> (optional) <a href="#">Advance Directive Observation (V3)</a> (optional) <a href="#">Care Plan (V2)</a> (optional) <a href="#">Care Plan (V2)</a> (required) <a href="#">Referral Note (V2)</a> (required) <a href="#">US Realm Header (V3)</a> (optional) <a href="#">Diagnostic Imaging Report (V3)</a> (optional)	

The US Realm Clinical Document Person Name datatype flavor is a set of reusable constraints that can be used for Persons.

**Table 531: US Realm Person Name (PN.US.FIELDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF #	Value
name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)					
name	1..1	SHALL		<a href="#">81-9368</a>	

1. **SHALL** contain exactly one [1..1] **name** (CONF:81-9368).
  - a. The content of name **SHALL** be either a conformant Patient Name (PTN.US.FIELDED), or a string (CONF:81-9371).
  - b. The string **SHALL NOT** contain name parts (CONF:81-9372).

## 6 TEMPLATE IDS IN THIS GUIDE

**Table 532: Template List**

Template Title	Template Type	templateId
<a href="#">Care Plan (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.15:2015-08-01
<a href="#">Consultation Note (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.4:2015-08-01
<a href="#">Continuity of Care Document (CCD) (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.2:2015-08-01
<a href="#">Diagnostic Imaging Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.5:2015-08-01
<a href="#">Discharge Summary (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.8:2015-08-01
<a href="#">History and Physical (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.3:2015-08-01
<a href="#">Operative Note (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.7:2015-08-01
<a href="#">Procedure Note (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.6:2015-08-01
<a href="#">Progress Note (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.9:2015-08-01
<a href="#">Referral Note (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.14:2015-08-01
<a href="#">Transfer Summary (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.13:2015-08-01
<a href="#">Unstructured Document (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.10:2015-08-01
<a href="#">US Realm Header (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01
<a href="#">US Realm Header for Patient Generated Document (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.29.1:2015-08-01
<a href="#">Admission Diagnosis Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.43:2015-08-01
<a href="#">Admission Medications Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.44:2015-08-01
<a href="#">Advance Directives Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.21:2015-08-01
<a href="#">Advance Directives Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.21.1:2015-08-01
<a href="#">Allergies and Intolerances Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.6:2015-08-01
<a href="#">Allergies and Intolerances Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.6.1:2015-08-01
<a href="#">Anesthesia Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		22.2.25:2014-06-09
<a href="#">Assessment and Plan Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.9:2014-06-09
<a href="#">Assessment Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.8
<a href="#">Chief Complaint and Reason for Visit Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.13
<a href="#">Chief Complaint Section</a>	section	urn:oid:1.3.6.1.4.1.19376.1.5.3.1.1 .13.2.1
<a href="#">Complications Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.37:2015-08-01
<a href="#">Course of Care Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.64
<a href="#">DICOM Object Catalog Section - DCM 121181</a>	section	urn:oid:2.16.840.1.113883.10.20.6 .1.1
<a href="#">Discharge Diagnosis Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.24:2015-08-01
<a href="#">Discharge Diet Section (DEPRECATED)</a>	section	urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1. 3.33:2014-06-09
<a href="#">Discharge Medications Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.11:2015-08-01
<a href="#">Discharge Medications Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.11.1:2015-08-01
<a href="#">Encounters Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.22:2015-08-01
<a href="#">Encounters Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.22.1:2015-08-01
<a href="#">Family History Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.15:2015-08-01
<a href="#">Fetus Subject Context</a>	section	urn:oid:2.16.840.1.113883.10.20.6 .2.3
<a href="#">Findings Section (DIR)</a>	section	urn:oid:2.16.840.1.113883.10.20.6 .1.2
<a href="#">Functional Status Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.14:2014-06-09
<a href="#">General Status Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 .5
<a href="#">Goals Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.60
<a href="#">Health Concerns Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.58:2015-08-01
<a href="#">Health Status Evaluations and Outcomes Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.61
<a href="#">History of Past Illness Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.20:2015-08-01
<a href="#">History of Present Illness Section</a>	section	urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		.4
<a href="#">Hospital Consultations Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.42
<a href="#">Hospital Course Section</a>	section	urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3 .5
<a href="#">Hospital Discharge Instructions Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.41
<a href="#">Hospital Discharge Physical Section</a>	section	urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3 .26
<a href="#">Hospital Discharge Studies Summary Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.16
<a href="#">Immunizations Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.2:2015-08-01
<a href="#">Immunizations Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.2.1:2015-08-01
<a href="#">Implants Section (DEPRECATED)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.33:2014-06-09
<a href="#">Instructions Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.45:2014-06-09
<a href="#">Interventions Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 21.2.3:2015-08-01
<a href="#">Medical (General) History Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.39
<a href="#">Medical Equipment Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.23:2014-06-09
<a href="#">Medications Administered Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.38:2014-06-09
<a href="#">Medications Section (entries optional) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.1:2014-06-09
<a href="#">Medications Section (entries required) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.1.1:2014-06-09
<a href="#">Mental Status Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.56:2015-08-01
<a href="#">Nutrition Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 2.2.57
<a href="#">Objective Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2 1.2.1
<a href="#">Observer Context</a>	section	urn:oid:2.16.840.1.113883.10.20.6 .2.4
<a href="#">Operative Note Fluids Section</a>	section	urn:oid:2.16.840.1.113883.10.20.7 .12
<a href="#">Operative Note Surgical Procedure Section</a>	section	urn:oid:2.16.840.1.113883.10.20.7 .14
<a href="#">Payers Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.18:2015-08-01
<a href="#">Physical Exam Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		2.10:2015-08-01
<a href="#">Plan of Treatment Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.10:2014-06-09
<a href="#">Planned Procedure Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.30:2014-06-09
<a href="#">Postoperative Diagnosis Section</a>	section	urn:oid:2.16.840.1.113883.10.20.22.2.35
<a href="#">Postprocedure Diagnosis Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.36:2015-08-01
<a href="#">Preoperative Diagnosis Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.34:2015-08-01
<a href="#">Problem Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01
<a href="#">Problem Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01
<a href="#">Procedure Description Section</a>	section	urn:oid:2.16.840.1.113883.10.20.22.2.27
<a href="#">Procedure Disposition Section</a>	section	urn:oid:2.16.840.1.113883.10.20.18.2.12
<a href="#">Procedure Estimated Blood Loss Section</a>	section	urn:oid:2.16.840.1.113883.10.20.18.2.9
<a href="#">Procedure Findings Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.28:2015-08-01
<a href="#">Procedure Implants Section</a>	section	urn:oid:2.16.840.1.113883.10.20.22.2.40
<a href="#">Procedure Indications Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.29:2014-06-09
<a href="#">Procedure Specimens Taken Section</a>	section	urn:oid:2.16.840.1.113883.10.20.22.2.31
<a href="#">Procedures Section (entries optional) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.7:2014-06-09
<a href="#">Procedures Section (entries required) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.7.1:2014-06-09
<a href="#">Reason for Referral Section (V2)</a>	section	urn:hl7ii:1.3.6.1.4.1.19376.1.5.3.1.3.1:2014-06-09
<a href="#">Reason for Visit Section</a>	section	urn:oid:2.16.840.1.113883.10.20.22.2.12
<a href="#">Results Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01
<a href="#">Results Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.3.1:2015-08-01
<a href="#">Review of Systems Section</a>	section	urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.18
<a href="#">Social History Section (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01
<a href="#">Subjective Section</a>	section	urn:oid:2.16.840.1.113883.10.20.2

Template Title	Template Type	templateId
		1.2.2
<a href="#">Surgery Description Section (DEPRECATED)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.26:2014-06-09
<a href="#">Surgical Drains Section</a>	section	urn:oid:2.16.840.1.113883.10.20.7.13
<a href="#">Vital Signs Section (entries optional) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.4:2015-08-01
<a href="#">Vital Signs Section (entries required) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.4.1:2015-08-01
<a href="#">Admission Medication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.36:2014-06-09
<a href="#">Advance Directive Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.48:2015-08-01
<a href="#">Advance Directive Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.108:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.31
<a href="#">Allergy - Intolerance Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09
<a href="#">Allergy Concern Act (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.30:2015-08-01
<a href="#">Allergy Status Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.28
<a href="#">Assessment Scale Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.69
<a href="#">Assessment Scale Supporting Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.86
<a href="#">Authorization Activity</a>	entry	urn:oid:2.16.840.1.113883.10.20.1.19
<a href="#">Boundary Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6.2.11
<a href="#">Caregiver Characteristics</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.72
<a href="#">Characteristics of Home Environment</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.109
<a href="#">Code Observations</a>	entry	urn:oid:2.16.840.1.113883.10.20.6.2.13
<a href="#">Cognitive Status Problem Observation (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.73:2014-06-09
<a href="#">Comment Activity</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.64
<a href="#">Coverage Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2015-08-01
<a href="#">Criticality Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.145
<a href="#">Cultural and Religious Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2

Template Title	Template Type	templateId
		2.4.111
<a href="#">Deceased Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01
<a href="#">Discharge Medication (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.35:2016-03-01
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Encounter Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01
<a href="#">Encounter Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01
<a href="#">Entry Reference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.122
<a href="#">Estimated Date of Delivery</a>	entry	urn:oid:2.16.840.1.113883.10.20.15.3.1
<a href="#">External Document Reference</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09
<a href="#">Family History Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.47
<a href="#">Family History Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01
<a href="#">Family History Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01
<a href="#">Functional Status Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09
<a href="#">Functional Status Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.66:2014-06-09
<a href="#">Functional Status Problem Observation (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.68:2014-06-09
<a href="#">Goal Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.121
<a href="#">Handoff Communication Participants</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.141
<a href="#">Health Concern Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2015-08-01
<a href="#">Health Status Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09
<a href="#">Highest Pressure Ulcer Stage</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.77
<a href="#">Hospital Admission Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01
<a href="#">Hospital Discharge Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.33:2015-08-01
<a href="#">Immunization Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		22.4.52:2015-08-01
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.54:2014-06-09
<a href="#">Immunization Refusal Reason</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.53
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.20:2014-06-09
<a href="#">Intervention Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.131:2015-08-01
<a href="#">Longitudinal Care Wound Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.114:2015-08-01
<a href="#">Medical Equipment Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.135
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.16:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.18:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.147
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.23:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.17:2014-06-09
<a href="#">Mental Status Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.74:2015-08-01
<a href="#">Mental Status Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.75:2015-08-01
<a href="#">Non-Medicinal Supply Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.50:2014-06-09
<a href="#">Number of Pressure Ulcers Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.76:2015-08-01
<a href="#">Nutrition Assessment</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.138
<a href="#">Nutrition Recommendation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.130
<a href="#">Nutritional Status Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.124
<a href="#">Outcome Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.144
<a href="#">Patient Referral Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.140
<a href="#">Planned Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.39:2014-06-09
<a href="#">Planned Coverage</a>	entry	urn:oid:2.16.840.1.113883.10.20.2

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		2.4.129
<a href="#">Planned Encounter (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09
<a href="#">Planned Immunization Activity</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.120
<a href="#">Planned Intervention Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.146:2015-08-01
<a href="#">Planned Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09
<a href="#">Planned Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09
<a href="#">Planned Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09
<a href="#">Planned Supply (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09
<a href="#">Policy Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01
<a href="#">Postprocedure Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Pregnancy Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.15.3.8
<a href="#">Preoperative Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01
<a href="#">Pressure Ulcer Observation (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.70:2014-06-09
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.143
<a href="#">Problem Concern Act (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Problem Status</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.6
<a href="#">Procedure Activity Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09
<a href="#">Procedure Activity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Procedure Context</a>	entry	urn:oid:2.16.840.1.113883.10.20.62.5
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2

Template Title	Template Type	templateId
		2.4.113
<a href="#">Progress Toward Goal Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.110
<a href="#">Purpose of Reference Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.9
<a href="#">Quantity Measurement Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.14
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.9:2014-06-09
<a href="#">Referenced Frames Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.10
<a href="#">Result Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.2:2015-08-01
<a href="#">Result Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.1:2015-08-01
<a href="#">Risk Concern Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.136:2015-08-01
<a href="#">Self-Care Activities (ADL and IADL)</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.128
<a href="#">Sensory Status</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.127
<a href="#">Series Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.63
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.32
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.8:2014-06-09
<a href="#">Smoking Status - Meaningful Use (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.78:2014-06-09
<a href="#">Social History Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.38:2015-08-01
<a href="#">SOP Instance Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.8
<a href="#">Study Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.6
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.118
<a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 24.3.90:2014-06-09
<a href="#">Text Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.6 .2.12
<a href="#">Tobacco Use (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.85:2014-06-09
<a href="#">Vital Sign Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.27:2014-06-09
<a href="#">Vital Signs Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
		22.4.26:2015-08-01
<a href="#"><u>Wound Characteristic</u></a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.134
<a href="#"><u>Wound Measurement Observation</u></a>	entry	urn:oid:2.16.840.1.113883.10.20.2 2.4.133
<a href="#"><u>Author Participation</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.4.119
<a href="#"><u>Physician of Record Participant (V2)</u></a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20. 6.2.2:2014-06-09
<a href="#"><u>Physician Reading Study Performer (V2)</u></a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20. 6.2.1:2014-06-09
<a href="#"><u>US Realm Address (AD.US.FIELDDED)</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.5.2
<a href="#"><u>US Realm Date and Time (DT.US.FIELDDED)</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.5.3
<a href="#"><u>US Realm Date and Time (DTM.US.FIELDDED)</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.5.4
<a href="#"><u>US Realm Patient Name (PTN.US.FIELDDED)</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.5.1
<a href="#"><u>US Realm Person Name (PN.US.FIELDDED)</u></a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2 2.5.1.1

## 7 VALUE SETS IN THIS GUIDE

**Table 533: Value Sets**

Name	OID	URL
<a href="#">Ability</a>	urn:oid:2.16.840.1.113883.11.20.9.46	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Act Priority</a>	urn:oid:2.16.840.1.113883.1.11.16866	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">ActStatus</a>	urn:oid:2.16.840.1.113883.1.11.15933	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion</a>
<a href="#">ADL Result Type</a>	urn:oid:2.16.840.1.113883.11.20.9.47	<a href="http://www.hl7.org">http://www.hl7.org</a>
<a href="#">AdministrationUnitDoseForm</a>	urn:oid:2.16.840.1.113762.1.4.1021.30	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion</a>
<a href="#">Administrative Gender (HL7 V3)</a>	urn:oid:2.16.840.1.113883.1.11.1	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">AdvanceDirectiveTypeCode</a>	urn:oid:2.16.840.1.113883.1.11.20.2	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">AgePO_UCUM</a>	urn:oid:2.16.840.1.113883.11.20.9.21	<a href="http://unitsofmeasure.org/ucum.html">http://unitsofmeasure.org/ucum.html</a>
<a href="#">Allergy and Intolerance Type</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.2	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Body Site</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Care Model</a>	urn:oid:2.16.840.1.113883.11.20.9.61	<a href="http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=170932006">http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=170932006</a>
<a href="#">Care Plan Document Type</a>	urn:oid:2.16.840.1.113762.1.4.1099.10	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.10">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.10</a>
<a href="#">Clinical Substance</a>	urn:oid:2.16.840.1.113762.1.4.1010.2	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">ConsultDocumentType</a>	urn:oid:2.16.840.1.113883.11.20.9.31	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">Country</a>	urn:oid:2.16.840.1.113883.3.88.12.80.63	<a href="https://www.iso.org/obp/ui/#iso:pub:PUB500001:en">https://www.iso.org/obp/ui/#iso:pub:PUB500001:en</a>
<a href="#">Coverage Role Type</a>	urn:oid:2.16.840.1.113883.1.11.18877	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Criticality Observation</a>	urn:oid:2.16.840.1.113883.1.11.20549	N/A
<a href="#">Current Smoking Status</a>	urn:oid:2.16.840.1.113883.11.20.9.38	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">CVX Vaccines Administered - Vaccine Set</a>	urn:oid:2.16.840.1.113762.1.4.1010.6	<a href="http://www2a.cdc.gov/vaccines/iss/iisstandards/vaccines.asp?rpt=cvx">http://www2a.cdc.gov/vaccines/iss/iisstandards/vaccines.asp?rpt=cvx</a>
<a href="#">Detailed Ethnicity</a>	urn:oid:2.16.840.1.114222.4.11.87	<a href="https://phinvads.cdc.gov/vads/Vie">https://phinvads.cdc.gov/vads/Vie</a>

Name	OID	URL
	7	<a href="#">wValueSet.action?oid=2.16.840.1.14222.4.11.877</a>
<a href="#">DICOPurposeOfReference</a>	urn:oid:2.16.840.1.113883.11.20.9.28	<a href="http://www.hl7.org">http://www.hl7.org</a>
<a href="#">DIRQuantityMeasurementTypeCodes</a>	urn:oid:2.16.840.1.113883.11.20.9.29	<a href="http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html">http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html</a>
<a href="#">DIRSectionTypeCodes</a>	urn:oid:2.16.840.1.113883.11.20.9.59	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">DischargeSummaryDocumentTypeCode</a>	urn:oid:2.16.840.1.113883.11.20.4.1	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">Encounter Planned</a>	urn:oid:2.16.840.1.113883.11.20.9.52	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion</a>
<a href="#">EncounterTypeCode</a>	urn:oid:2.16.840.1.113883.3.88.12.80.32	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">EntityNameUse</a>	urn:oid:2.16.840.1.113883.1.11.15913	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">EntityPersonNamePartQualifier</a>	urn:oid:2.16.840.1.113883.11.20.9.26	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Ethnicity</a>	urn:oid:2.16.840.1.114222.4.11.837	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Family Member Value Set</a>	urn:oid:2.16.840.1.113883.1.11.19579	<a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm</a>
<a href="#">Goal Achievement</a>	urn:oid:2.16.840.1.113883.11.20.9.55	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Health Insurance Type</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.5.2	N/A
<a href="#">Healthcare Agent Qualifier</a>	urn:oid:2.16.840.1.113883.11.20.9.51	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Healthcare Provider Taxonomy (HIPAA)</a>	urn:oid:2.16.840.1.114222.4.11.1066	<a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.14222.4.11.1066">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.14222.4.11.1066</a>
<a href="#">HealthcareServiceLocation</a>	urn:oid:2.16.840.1.113883.1.11.20275	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">HealthStatus</a>	urn:oid:2.16.840.1.113883.1.11.20.12	<a href="https://www.hl7.org/">https://www.hl7.org/</a>
<a href="#">HL7 BasicConfidentialityKind</a>	urn:oid:2.16.840.1.113883.1.11.16926	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">HL7FinanciallyResponsiblePartyType</a>	urn:oid:2.16.840.1.113883.1.11.10416	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">HPDocumentType</a>	urn:oid:2.16.840.1.113883.1.11.20.22	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">INDRoleclassCodes</a>	urn:oid:2.16.840.1.113883.11.20.9.33	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Language</a>	urn:oid:2.16.840.1.113883.1.11.11	<a href="http://www.loc.gov/standards/iso">http://www.loc.gov/standards/iso</a>

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	526	<a href="https://vsac.nlm.nih.gov/639-2/php/code_list.php">639-2/php/code_list.php</a>
<a href="#">LanguageAbilityMode</a>	urn:oid:2.16.840.1.113883.1.11.12249	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">LanguageAbilityProficiency</a>	urn:oid:2.16.840.1.113883.1.11.12199	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">LOINC Imaging Document Codes</a>	urn:oid:1.3.6.1.4.1.12009.10.2.5	<a href="http://search.loinc.org/search.zul?query=%28class%3A%22*rad%22+scale%3Adoc%29+OR+%2811525-3+OR+18746-8+OR+18753-4+OR+18748-4+OR+18751-8+OR+18744-3+OR+29757-2+OR+42148-7%29+-status%3Adeprecated">http://search.loinc.org/search.zul?query=%28class%3A%22*rad%22+scale%3Adoc%29+OR+%2811525-3+OR+18746-8+OR+18753-4+OR+18748-4+OR+18751-8+OR+18744-3+OR+29757-2+OR+42148-7%29+-status%3Adeprecated</a>
<a href="#">Marital Status</a>	urn:oid:2.16.840.1.113883.1.11.12212	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Medication Clinical Drug</a>	urn:oid:2.16.840.1.113762.1.4.1010.4	<a href="http://phinvads.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785">http://phinvads.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785</a>
<a href="#">Medication Fill Status</a>	urn:oid:2.16.840.1.113883.3.88.12.80.64	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Medication Route FDA</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.7	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7</a>
<a href="#">Medication Route</a>	urn:oid:2.16.840.1.113762.1.4.1099.12	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion</a>
<a href="#">Medication Status</a>	urn:oid:2.16.840.1.113762.1.4.1099.11	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.11/expansion</a>
<a href="#">Mental and Functional Status Response</a>	urn:oid:2.16.840.1.113883.11.20.9.44	<a href="http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=272520006">http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=272520006</a>
<a href="#">MoodCodeEvnInt</a>	urn:oid:2.16.840.1.113883.11.20.9.18	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">No Immunization Reason Value Set</a>	urn:oid:2.16.840.1.113883.1.11.19717	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">NUBC UB-04 FL17 Patient Status</a>	urn:oid:2.16.840.1.113883.3.88.12.80.33	<a href="http://www.nubc.org">http://www.nubc.org</a>
<a href="#">Nutrition Recommendations</a>	urn:oid:2.16.840.1.113883.1.11.20.2.9	<a href="http://www.hl7.org">http://www.hl7.org</a>
<a href="#">Nutritional Status</a>	urn:oid:2.16.840.1.113883.1.11.20.2.7	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Observation Interpretation (HL7)</a>	urn:oid:2.16.840.1.113883.1.11.78	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">ParticipationFunction</a>	urn:oid:2.16.840.1.113883.1.11.10267	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Patient Education</a>	urn:oid:2.16.840.1.113883.11.20.9.34	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>

Name	OID	URL
<a href="#">Patient Referral Act moodCode</a>	urn:oid:2.16.840.1.113883.11.20.9.66	<a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>
<a href="#">Payer</a>	urn:oid:2.16.840.1.114222.4.11.3591	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Personal And Legal Relationship Role Type</a>	urn:oid:2.16.840.1.113883.11.20.1.2.1	<a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.13883.11.20.12.1">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.13883.11.20.12.1</a>
<a href="#">Physical Exam Type</a>	urn:oid:2.16.840.1.113883.11.20.9.65	<a href="http://www.search.loinc.org">http://www.search.loinc.org</a>
<a href="#">Planned Intervention moodCode</a>	urn:oid:2.16.840.1.113883.11.20.9.54	<a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>
<a href="#">Planned moodCode (Act/Encounter/Procedure)</a>	urn:oid:2.16.840.1.113883.11.20.9.23	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Planned moodCode (Observation)</a>	urn:oid:2.16.840.1.113883.11.20.9.25	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Planned moodCode (SubstanceAdministration/Supply)</a>	urn:oid:2.16.840.1.113883.11.20.9.24	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">PostalAddressUse</a>	urn:oid:2.16.840.1.113883.1.11.10637	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">PostalCode</a>	urn:oid:2.16.840.1.113883.3.88.12.80.2	<a href="http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000">http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000</a>
<a href="#">Pressure Point</a>	urn:oid:2.16.840.1.113883.11.20.9.36	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Pressure Ulcer Stage</a>	urn:oid:2.16.840.1.113883.11.20.9.35	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Priority Level</a>	urn:oid:2.16.840.1.113883.11.20.9.60	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Problem</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4	<a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.13883.3.88.12.3221.7.4">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.13883.3.88.12.3221.7.4</a>
<a href="#">Problem Status</a>	urn:oid:2.16.840.1.113883.3.88.12.80.68	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Problem Type</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2	<a href="http://www.loinc.org">http://www.loinc.org</a>
<a href="#">ProblemAct statusCode</a>	urn:oid:2.16.840.1.113883.11.20.9.19	<a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>
<a href="#">ProcedureAct statusCode</a>	urn:oid:2.16.840.1.113883.11.20.9.22	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">ProcedureNoteDocumentTypeCodes</a>	urn:oid:2.16.840.1.113883.11.20.6.1	<a href="http://search.loinc.org">http://search.loinc.org</a>

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<a href="#">ProgressNoteDocumentTypeCode</a>	urn:oid:2.16.840.1.113883.11.20.8.1	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">Race</a>	urn:oid:2.16.840.1.113883.1.11.14914	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Race Category Excluding Nulls</a>	urn:oid:2.16.840.1.113883.3.2074.1.1.3	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Reaction Severity</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.8	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion</a>
<a href="#">Referral Types</a>	urn:oid:2.16.840.1.113883.11.20.9.56	<a href="http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=3457005">http://vtsl.vetmed.vt.edu/TerminologyMgt/RF2Browser/ISA.cfm?SCT_ConceptID=3457005</a>
<a href="#">ReferralDocumentType</a>	urn:oid:2.16.840.1.113883.1.11.20.2.3	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">Religious Affiliation</a>	urn:oid:2.16.840.1.113883.1.11.19185	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Residence and Accommodation Type</a>	urn:oid:2.16.840.1.113883.11.20.9.49	<a href="https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.9.49">https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.11.20.9.49</a>
<a href="#">Result Status</a>	urn:oid:2.16.840.1.113883.11.20.9.39	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Sensory Status Problem Type</a>	urn:oid:2.16.840.1.113883.11.20.9.50	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Social History Type</a>	urn:oid:2.16.840.1.113883.3.88.12.80.60	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">StateValueSet</a>	urn:oid:2.16.840.1.113883.3.88.12.80.1	<a href="http://www.census.gov/geo/reference/ansi_statetables.html">http://www.census.gov/geo/reference/ansi_statetables.html</a>
<a href="#">Substance-Reactant for Intolerance</a>	urn:oid:2.16.840.1.113762.1.4.1010.1	<a href="http://www.hl7.org">http://www.hl7.org</a>
<a href="#">SupportedFileFormats</a>	urn:oid:2.16.840.1.113883.11.20.7.1	<a href="http://www.hl7.org">http://www.hl7.org</a>
<a href="#">SurgicalOperationNoteDocumentTypeCode</a>	urn:oid:2.16.840.1.113883.11.20.1.1	<a href="http://www.loinc.org/">http://www.loinc.org/</a>
<a href="#">TargetSite Qualifiers</a>	urn:oid:2.16.840.1.113883.11.20.9.37	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Telecom Use (US Realm Header)</a>	urn:oid:2.16.840.1.113883.11.20.9.20	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Tobacco Use</a>	urn:oid:2.16.840.1.113883.11.20.9.41	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">TransferDocumentType</a>	urn:oid:2.16.840.1.113883.1.11.20.2.4	<a href="http://search.loinc.org/search.zul?query=transfer+summary+note">http://search.loinc.org/search.zul?query=transfer+summary+note</a>
<a href="#">UnitsOfMeasureCaseSensitive</a>	urn:oid:2.16.840.1.113883.1.11.12839	<a href="http://unitsofmeasure.org/uicum.html">http://unitsofmeasure.org/uicum.html</a>
<a href="#">Vaccine Clinical Drug</a>	urn:oid:2.16.840.1.113762.1.4.1010.8	<a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
<a href="#">Vital Sign Result Type</a>	urn:oid:2.16.840.1.113883.3.88.12	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62</a>

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	.80.62	<a href="#">/expansion</a>
<a href="#">Wound Characteristic</a>	urn:oid:2.16.840.1.113883.11.20.9 .58	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Wound Measurements</a>	urn:oid:2.16.840.1.113883.1.11.20 .2.5	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">Wound Type</a>	urn:oid:2.16.840.1.113883.1.11.20 .2.6	<a href="https://vsac.nlm.nih.gov">https://vsac.nlm.nih.gov</a>
<a href="#">x_ActRelationshipDocument</a>	urn:oid:2.16.840.1.113883.1.11.11 610	N/A
<a href="#">x_ServiceEventPerformer</a>	urn:oid:2.16.840.1.113883.1.11.19 601	<a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html</a>

## 8 CODE SYSTEMS IN THIS GUIDE

**Table 534: Code Systems**

Name	OID
CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292
CPT4	urn:oid:2.16.840.1.113883.6.12
DCM	urn:oid:1.2.840.10008.2.16.4
FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92
Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101
HITSP-CS-83	urn:oid:2.16.840.1.113883.5.83
HL7 HealthcareServiceLocation	urn:oid:2.16.840.1.113883.6.259
HL7ActClass	urn:oid:2.16.840.1.113883.5.6
HL7ActCode	urn:oid:2.16.840.1.113883.5.4
HL7ActMood	urn:oid:2.16.840.1.113883.5.1001
HL7ActPriority	urn:oid:2.16.840.1.113883.5.7
HL7ActReason	urn:oid:2.16.840.1.113883.5.8
HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002
HL7ActStatus	urn:oid:2.16.840.1.113883.5.14
HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119
HL7AdministrativeGender	urn:oid:2.16.840.1.113883.5.1
HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25
HL7EntityClass	urn:oid:2.16.840.1.113883.5.41
HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43
HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45
HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60
HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61
HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2
HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008
HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063
HL7ParticipationFunction	urn:oid:2.16.840.1.113883.5.88
HL7ParticipationSignature	urn:oid:2.16.840.1.113883.5.89
HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90
HL7Race	urn:oid:2.16.840.1.113883.5.104
HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076
HL7RoleClass	urn:oid:2.16.840.1.113883.5.110
HL7RoleCode	urn:oid:2.16.840.1.113883.5.111
ICD-10-CM	urn:oid:2.16.840.1.113883.6.90
Insurance Type Code	urn:oid:2.16.840.1.113883.3.88.12.3221.5.2
ISO 3166 Part 1 Country Codes, 2nd Edition,	urn:oid:1.0.3166.1.2.2

<b>Name</b>	<b>OID</b>
Alpha-2	
Language	urn:oid:2.16.840.1.113883.6.121
LOINC	urn:oid:2.16.840.1.113883.6.1
Media Type	urn:oid:2.16.840.1.113883.5.79
NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1
NDFRT	urn:oid:2.16.840.1.113883.3.26.1.5
NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.113883.6.301.5
Provider Role (HL7)	urn:oid:2.16.840.1.113883.3.88.12.3221.4
Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238
RxNorm	urn:oid:2.16.840.1.113883.6.88
SNOMED CT	urn:oid:2.16.840.1.113883.6.96
Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.221.5
UCUM	urn:oid:2.16.840.1.113883.6.8
Unique Ingredient Identifier (UNII)	urn:oid:2.16.840.1.113883.4.9
USPostalCodes	urn:oid:2.16.840.1.113883.6.231