

Implementation Guide for CDA R2 Consolidated CDA Templates

Acknowledgments

This document contains an example of healthcare standards and specifications publication generated from UML models, using the OHT Model Driven Health Tools (MDHT).

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Chapter 1

INTRODUCTION

Topics:

- [Overview](#)
- [Approach](#)
- [Scope](#)
- [Audience](#)
- [Organization of This Guide](#)
- [Use of Templates](#)
- [Conventions Used in This Guide](#)

Overview

This implementation guide is generated from UML models developed in the Open Health Tools (OHT) Model-Driven Health Tools (MDHT) project. The data specifications have been formalized into computational models expressed in UML. These models are used by automated tooling to generate this publication, plus validation tools and Java libraries for implementers.

Approach

Working with specifications generated from formal UML models provides the opportunity to work with the data from the perspective of the underlying model and electronic format and to explore many design issues thoroughly. Taking this as an initial step ensures that the data set developers and standards community can reach consensus prior to the larger commitment of time that would be required to bring the full data set into standard format.

This project supports reusability and ease of data collection through a standard data representation harmonized with work developed through Health Information Technology Expert Panel (HITEP), balloted through Health Level Seven (HL7) and/or recognized by the Health Information Technology Standards Panel (HITSP).

This implementation guide (IG) specifies a standard for electronic submission of NCRs in a Clinical Document Architecture (CDA), Release 2 format.

Scope

TODO: scope of this implementation guide.

Audience

The audience for this document includes software developers and implementers who wish to develop...

Organization of This Guide

The requirements as laid out in the body of this document are subject to change per the policy on implementation guides (see section 13.02 "Draft Standard for Trial Use Documents" within the HL7 Governance and Operations Manual, http://www.hl7.org/documentcenter/public/membership/HL7_Governance_and_Operations_Manual.pdf).

Templates

Templates are organized by document (see Document Templates), by section (see Section Templates), and by clinical statements (see Clinical Statement Templates). Within a section, templates are arranged hierarchically, where a more specific template is nested under the more generic template that it conforms to. See Templates by Containment for a listing of the higher level templates by containment; the appendix Templates Used in This Guide includes a table of all of the templates Organized Hierarchically.

Vocabulary and Value Sets

Vocabularies recommended in this guide are from standard vocabularies. When SNOMED codes are used, rules defined in Using SNOMED CT in HL7 Version 3 are adhered to. In many cases, these vocabularies are further constrained into value sets for use within this guide. Value set names and OIDs are summarized in the table Summary of Value Sets. Each named value set in this summary table is stored in a template database that will be maintained by CHCA.

Use of Templates

When valued in an instance, the template identifier (`templateId`) signals the imposition of a set of template-defined constraints. The value of this attribute provides a unique identifier for the templates in question.

Originator Responsibilities

An originator can apply a `templateId` to assert conformance with a particular template.

In the most general forms of CDA exchange, an originator need not apply a `templateId` for every template that an object in an instance document conforms to. This implementation guide asserts when `templateIds` are required for conformance.

Recipient Responsibilities

A recipient may reject an instance that does not contain a particular `templateId` (e.g., a recipient looking to receive only CCD documents can reject an instance without the appropriate `templateId`).

A recipient may process objects in an instance document that do not contain a `templateId` (e.g., a recipient can process entries that contain Observation acts within a Problems section, even if the entries do not have `templateIds`).

Conventions Used in This Guide

Conformance Requirements

Conformance statements are grouped and identified by the name of the template, along with the `templateId` and the context of the template (e.g., ClinicalDocument, section, observation), which specifies the element under constraint. If a template is a specialization of another template, its first constraint indicates the more general template. In all cases where a more specific template conforms to a more general template, asserting the more specific template also implies conformance to the more general template. An example is shown below.

Template name

```
[<type of template>: templateId <XXXX.XX.XXX.XXX>]
```

Description of the template will be here

1. Conforms to <The template name> Template (templateId: XXXX<XX>XXX>YYY).
2. **SHALL** contain [1..1] @classCode = <AAA> <code display name> (CodeSystem: 123.456.789 <XXX> Class) **STATIC** (CONF:<number>).
3.

Figure 1: Template name and "conforms to" appearance

The conformance verb keyword at the start of a constraint (**SHALL** , **SHOULD** , **MAY** , etc.) indicates business conformance, whereas the cardinality indicator (0..1, 1..1, 1..*, etc.) specifies the allowable occurrences within an instance. Thus, " **MAY** contain 0..1" and " **SHOULD** contain 0..1" both allow for a document to omit the particular component, but the latter is a stronger recommendation that the component be included if it is known.

The following cardinality indicators may be interpreted as follows:

- 0..1 as zero to one present
- 1..1 as one and only one present
- 2..2 as two must be present
- 1..* as one or more present
- 0..* as zero to many present

Value set bindings adhere to HL7 Vocabulary Working Group best practices, and include both a conformance verb (**SHALL**, **SHOULD**, **MAY**, etc.) and an indication of **DYNAMIC** vs. **STATIC** binding. The use of **SHALL** requires that the component be valued with a member from the cited value set; however, in every case any HL7 "null" value such as other (OTH) or unknown (UNK) may be used.

Each constraint is uniquely identified (e.g., "CONF:605") by an identifier placed at or near the end of the constraint. These identifiers are not sequential as they are based on the order of creation of the constraint.

1. **SHALL** contain [1..1] component/structuredBody (CONF:4082).
 - a. This component/structuredBody **SHOULD** contain [0..1] component (CONF:4130) such that it
 1. **SHALL** contain [1..1] Reporting Parameters section (templateId:2.16.840.1.113883.10.20.17.2.1) (CONF:4131).
 - b. This component/structuredBody **SHALL** contain [1..1] component (CONF:4132) such that it
 1. **SHALL** contain [1..1] Patient data section - NCR (templateId:2.16.840.1.113883.10.20.17.2.5) (CONF:4133).

Figure 2: Template-based conformance statements example

CCD templates are included within this implementation guide for ease of reference. CCD templates contained within this implementation guide are formatted WITHOUT typical **KEYWORD** and **XML** element styles. A WIKI site is available if you would like to make a comment to be considered for the next release of CCD: http://wiki.hl7.org/index.php?title=CCD_Suggested_Enhancements The user name and password are: wiki/wikiwiki. You will need to create an account to edit the page and add your suggestion.

1. The value for "Observation / @moodCode" in a problem observation SHALL be "EVN" 2.16.840.1.113883.5.1001 ActMood STATIC. (CONF: 814).
2. A problem observation SHALL include exactly one Observation / statusCode. (CONF: 815).
3. The value for "Observation / statusCode" in a problem observation SHALL be "completed" 2.16.840.1.113883.5.14 ActStatus STATIC. (CONF: 816).
4. A problem observation SHOULD contain exactly one Observation / effectiveTime, to indicate the biological timing of condition (e.g. the time the condition started, the onset of the illness or symptom, the duration of a condition). (CONF: 817).

Figure 3: CCD conformance statements example

Keywords

The keywords SHALL, SHALL NOT, SHOULD, SHOULD NOT, MAY, and NEED NOT in this document are to be interpreted as described in the [HL7 Version 3 Publishing Facilitator's Guide](#):

- **SHALL**: an absolute requirement
- **SHALL NOT**: an absolute prohibition against inclusion
- **SHOULD/SHOULD NOT**: valid reasons to include or ignore a particular item, but must be understood and carefully weighed
- **MAY/NEED NOT**: truly optional; can be included or omitted as the author decides with no implications

XML Examples

XML samples appear in various figures in this document in a fixed-width font. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (...) as shown in the example below.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
...
</ClinicalDocument>
```

Figure 4: ClinicalDocument example

XPath expressions are used in the narrative and conformance requirements to identify elements because they are familiar to many XML implementers.

Chapter

2

GENERAL HEADER TEMPLATE

Topics:

- [USRealmHeader](#)

USRealmHeader

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.1]

This section describes constraints that apply to the header for all documents within the scope of this implementation guide. Header constraints specific to each document type are described in the appropriate document-specific section below. Document Type Codes CDA R2 states that LOINC is the preferred vocabulary for document type codes, which specify the type of document being exchanged (e.g., History and Physical). Each document type in this guide recommends a single preferred clinicalDocument/code, with further specification provided by author or performer, setting, or specialty.

USRealmHeader Header Constraints

USRealmHeader Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:5252, CONF:10036) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.1"
2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:5253, R2.1=CONF:1198-5253)
6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)

12. SHALL contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. SHALL contain exactly one [1..1] **patientRole** such that it (CONF:5268)

- 1. SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
- 2. SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
- 3. SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
- 4. SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Ordering List Number 5** to one [0..1] **code** (CONF:5326)
 - Ordering List Number 5** to one or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Ordering List Number 5** to one or more [0..*] **telecom**
 - Ordering List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Ordering List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Ordering List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Ordering List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Ordering List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Ordering List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Ordering List Number 6** **SHOULD** 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:5402,, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Ordering List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Ordering List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Ordering List Number 5** to one or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Ordering List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where **id/@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

13. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

14. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

15. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

16. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

17. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

18. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

19. **MAY** contain zero or more [0..*] **authenticator** such that it (CONF:5607)
- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
 - b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
 - c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)
20. **MAY** contain zero or more [0..*] **informant** such that it (CONF:8001)
- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
 - b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 - c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)
21. **MAY** contain zero or more [0..*] **participant** such that it (CONF:10003)
- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
 - b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
 - c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)
22. **MAY** contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)
- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

23. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)
- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)
 - 1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)
 - 2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)
 - a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)
 - b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)
 - c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)
 - OrderList Number 5
 - SHALL contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)
 - OrderList Number 5
 - SHOULD contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)
 - OrderList Number 5
 - SHOULD contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)
 - 3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)
24. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)
- a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)
 - 1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)
 - 2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)
 - The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.*
 - 3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)
25. **typeId** **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:5250, R2.1=CONF:1198-5250)
26. **typeId** **SHALL** contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:5251, R2.1=CONF:1198-5251)
27. **id** **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
28. **code** **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
29. If **setId** is present **versionNumber** **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
30. If **versionNumber** is present **setId** **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)
- 1. **SHALL** contain exactly one [1..1] **realmCode/@code="US"** (CONF:16791)
 - 2. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
 - 3. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
 - 4. **SHALL** contain exactly one [1..1] **code** (CONF:5253, R2.1=CONF:1198-5253)
 - 5. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
 - 6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)
- Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA*
- 7. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
 - 8. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
 - 9. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
 - 10. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)

11. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

12. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - OrderSet Number 5** to or one [0..1] **code** (CONF:5326)
 - OrderSet Number 5** to or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - OrderSet Number 5** to or more [0..*] **telecom**
 - OrderSet Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - OrderSet Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - OrderSet Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - OrderSet Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - OrderSet Number 5** to one [1..1] **place** such that it (CONF:5396)
 - OrderSet Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - OrderSet Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - OrderSet Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - OrderSet Number 6** **SHOULD** 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:5402, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - OrderSet Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - OrderSet Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - OrderSet Number 5** to or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - OrderSet Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where **id/@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

13. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

14. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

15. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

16. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

17. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

18. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

19. **MAY** contain zero or more [0..*] **authenticator** such that it (CONF:5607)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/**@code="S"** (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

20. **MAY** contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/**@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] **assignedEntity** OR exactly one [1..1] **relatedEntity** (CONF:8002)

21. **MAY** contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/**@typeCode** is IND, associatedEntity/**@classCode** **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

22. **MAY** contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

23. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)
- SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)
 - SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)
 - SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)
 - SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)
 - MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)
 - SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)
 - SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)
 - SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)
 - SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:14847, R2.1=CONF:1198-14847)
 - effectiveTime SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)
24. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)
- SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)
 - MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)
 - MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

 - SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)
25. **typeId SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:5250, R2.1=CONF:1198-5250)
26. **typeId SHALL** contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:5251, R2.1=CONF:1198-5251)
27. **id SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
28. **code SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
29. If **setId** is present **versionNumber SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
30. If **versionNumber** is present **setId SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)

USRealmHeader Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="urn:hl7-org:v3" xmlns:sdtc="urn:hl7-org:sdtc"
xsi:schemaLocation="urn:hl7-org:v3 infrastructure/cda/CDA_SDTC.xsd">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="945141708"/>
  <code code="989205175"/>
  <title>org.openhealthtools.mdht.uml.cda.consol.impl. General Header
Constraints Impl</title>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
codeSystemName="ConfidentialityCode"/>
  <languageCode code="Code for languageCode"/>
  <setId root="MDHT" extension="1219fb6a-2811-4371-8d34-2b193ab26a0c"/>
  <versionNumber value="1"/>
  <recordTarget>
    <patientRole>
```

```

    <id root="MDHT" extension="812917151"/>
    <patient>
      <administrativeGenderCode codeSystem="2.16.840.1.113883.5.1"
codeSystemName="AdministrativeGenderCode"/>
      <maritalStatusCode codeSystem="2.16.840.1.113883.5.2"
codeSystemName="MaritalStatus"/>
      <religiousAffiliationCode codeSystem="2.16.840.1.113883.5.1076"
codeSystemName="ReligiousAffiliation"/>
      <raceCode codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race
and Ethnicity - CDC"/>
      <sdct:raceCode codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity - CDC"/>
      <ethnicGroupCode codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity - CDC"/>
    </patient>
    <providerOrganization/>
    </patientRole>
  </recordTarget>
  <author>
    <assignedAuthor>
      <id root="MDHT" extension="873034862"/>
      <code codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health
Care Provider Taxonomy"/>
      <assignedPerson/>
      <assignedAuthoringDevice/>
    </assignedAuthor>
  </author>
  <dataEnterer>
    <assignedEntity>
      <id root="MDHT" extension="696639853"/>
      <code codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health
Care Provider Taxonomy"/>
      <assignedPerson/>
    </assignedEntity>
  </dataEnterer>
  <informant>
    <assignedEntity>
      <id root="MDHT" extension="478255130"/>
      <code codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health
Care Provider Taxonomy"/>
      <assignedPerson/>
    </assignedEntity>
    <relatedEntity>
      <relatedPerson/>
    </relatedEntity>
  </informant>
  <custodian>
    <assignedCustodian>
      <representedCustodianOrganization/>
    </assignedCustodian>
  </custodian>
  <informationRecipient>
    <intendedRecipient>
      <informationRecipient/>
      <receivedOrganization/>
    </intendedRecipient>
  </informationRecipient>
  <legalAuthenticator>
    <time/>
    <signatureCode code="S"/>
    <assignedEntity>
      <id root="MDHT" extension="1093834751"/>
      <code codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health
Care Provider Taxonomy"/>

```

```

        <assignedPerson/>
      </assignedEntity>
    </legalAuthenticator>
    <authenticator>
      <time/>
      <signatureCode code="S"/>
      <assignedEntity>
        <id root="MDHT" extension="72047236"/>
        <code codeSystem="2.16.840.1.113883.6.101" codeSystemName="NUCC Health
Care Provider Taxonomy"/>
        <assignedPerson/>
      </assignedEntity>
    </authenticator>
  </participant>
  <time>
    <low value="2019"/>
    <high value="2019"/>
  </time>
  <associatedEntity/>
</participant>
<inFulfillmentOf>
  <order>
    <id root="MDHT" extension="357288898"/>
  </order>
</inFulfillmentOf>
<documentationOf>
  <serviceEvent>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <performer>
      <functionCode codeSystem="2.16.840.1.113883.5.88"
codeSystemName="ParticipationFunction"/>
    </performer>
  </serviceEvent>
</documentationOf>
<authorization>
  <consent>
    <id root="MDHT" extension="1370817048"/>
    <code code="1593838094"/>
    <statusCode code="completed"/>
  </consent>
</authorization>
<componentOf>
  <encompassingEncounter>
    <id root="MDHT" extension="1428903022"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </encompassingEncounter>
</componentOf>
<component/>
</ClinicalDocument>

```

Chapter

3

DOCUMENT-LEVEL TEMPLATES

Topics:

- Consultation Note
- Continuity Of Care Document
- Diagnostic Imaging Report
-
- History And Physical Note
- Operative Note
- Procedure Note
- Progress Note
- Unstructured Document

Consultation Note

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.4]

For the purpose of this Implementation Guide, a consultation visit is defined by the evaluation and management guidelines for a consultation established by the Centers for Medicare and Medicaid Services (CMS). According to those guidelines, a Consultation Note must be generated as a result of a physician or nonphysician practitioner's (NPP) request for an opinion or advice from another physician or NPP. Consultations must involve face-to-face time with the patient or fall under guidelines for telemedicine visits. A Consultation Note must be provided to the referring physician or NPP and must include the reason for the referral, history of present illness, physical examination, and decision-making component (Assessment and Plan). An NPP is defined as any licensed medical professional as recognized by the state in which the professional practices, including, but not limited to, physician assistants, nurse practitioners, clinical nurse specialists, social workers, registered dietitians, physical therapists, and speech therapists. Reports on visits requested by a patient, family member, or other third party are not covered by this specification. Second opinions, sometimes called "confirmatory consultations," also are not covered here. Any question on use of the Consultation Note defined here should be resolved by reference to CMS or American Medical Association (AMA) guidelines.

Consultation Note Header Constraints

Consultation Note Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8375, CONF:10040) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.4"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:17176), which **SHALL** be selected from ValueSet ConsultDocumentType 2.16.840.1.113883.11.20.9.31 **DYNAMIC** (CONF:17177)

The Consultation Note limits document type codes to those codes listed in the Consultation Note LOINC Document Codes table (invalid codes are listed in a separate table). Implementation may use translation elements to specify a local code that is equivalent to a document type (see the Consultation Note translation of local code figure). The Consultation Note recommends use of a single document type code, 11488-4 "Consultation Note", with further specification provided by author or performer, setting, or specialty. The specialized codes in the Consultation Note LOINC Document Codes table are pre-coordinated with the practice setting or the training or professional level of the author. Use of these codes is not recommended, as this duplicates information that may be present in the header. 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, a Cardiology Consultation Note would not be authored by an Obstetrician.

4. **SHALL** contain exactly one [1..1] **componentOf** such that it (CONF:8386)
 - a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8387)
 1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8389)
 2. **SHALL** contain exactly one [1..1] **id** (CONF:8388)
 3. **MAY** contain zero or one [0..1] **responsibleParty** such that it (CONF:8391)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8394)
 - b. The responsibleParty element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8394)
 4. **MAY** contain zero or more [0..*] **encounterParticipant** such that it (CONF:8392)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8396)
 - b. The responsibleParty element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8396)
 5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10132, CONF:10127)
 6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10132, CONF:10128)
 7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10132, CONF:10129)
 8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10132, CONF:10130)
5. **MAY** contain [0..1] **component** such that it (CONF:9491)
 - a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
6. **MAY** contain [0..1] **component** such that it (CONF:9487)
 - a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
7. **MAY** contain [0..1] **component** such that it (CONF:9489)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
8. **SHALL** contain [1..1] **component** such that it (CONF:9493)
 - a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)
9. **SHOULD** contain [0..1] **component** such that it (CONF:9495)
 - a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
10. **MAY** contain [0..1] **component** such that it (CONF:9498)
 - a. Conforms to [Reason For Referral Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.1)
11. **MAY** contain [0..1] **component** such that it (CONF:9500)
 - a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)
12. **MAY** contain [0..1] **component** such that it (CONF:9507)
 - a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
13. **MAY** contain [0..1] **component** such that it (CONF:9509)
 - a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
14. **MAY** contain [0..1] **component** such that it (CONF:10029)
 - a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)
15. **MAY** contain [0..1] **component** such that it (CONF:9513)
 - a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)

16. **MAY** contain [0..1] **component** such that it (CONF:9515)
 - a. Conforms to [General Status Section](#) (templateId: 2.16.840.1.113883.10.20.2.5)
17. **MAY** contain [0..1] **component** such that it (CONF:9517)
 - a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)
18. **MAY** contain [0..1] **component** such that it (CONF:9519)
 - a. Conforms to [Immunizations Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.2.1)
19. **MAY** contain [0..1] **component** such that it (CONF:9521)
 - a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
20. **MAY** contain [0..1] **component** such that it (CONF:9523)
 - a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)
21. **MAY** contain [0..1] **component** such that it (CONF:9525)
 - a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)
22. **MAY** contain [0..1] **component** such that it (CONF:9527)
 - a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)
23. **MAY** contain [0..1] **component** such that it (CONF:9529)
 - a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
24. **MAY** contain [0..1] **component** such that it (CONF:9531)
 - a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
25. **MAY** contain [0..1] **component** such that it (CONF:9533)
 - a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)
26. **SHALL** contain at least one [1..*] **inFulfillmentOf** such that it (CONF:8382)
 - a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:8385)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9102)
27. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan of Care Section (CONF:9501)
28. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10028)
29. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10055)
30. **SHALL** include a Reason for Referral or Reason for Visit section (CONF:9504, R2.1=CONF:1198-9504)
1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:17176), which **SHALL** be selected from ValueSet ConsultDocumentType 2.16.840.1.113883.11.20.9.31 **DYNAMIC** (CONF:17177)

The Consultation Note limits document type codes to those codes listed in the Consultation Note LOINC Document Codes table (invalid codes are listed in a separate table). Implementation may use translation elements to specify a local code that is equivalent to a document type (see the Consultation Note translation of local code figure). The Consultation Note recommends use of a single document type code, 11488-4 "Consultation Note", with further specification provided by author or performer, setting, or specialty. The specialized codes in the Consultation Note LOINC Document Codes table are pre-coordinated with the practice setting or the training or professional level of the author. Use of these codes is not recommended, as this duplicates information that may be present in the header. 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, a Cardiology Consultation Note would not be authored by an Obstetrician.

6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)
12. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

13. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
 - i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Orderable List Number 5** to one [0..1] **code** (CONF:5326)
 - Orderable List Number 5** to more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Orderable List Number 5** to more [0..*] **telecom**
 - Orderable List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Orderable List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Orderable List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Orderable List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
 - j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Orderable List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Orderable List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Orderable List Number 6** **SHOULD** 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:5402, DSTU:812)
 - k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Orderable List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Orderable List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Orderable List Number 5** to one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Orderable List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
 - l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
- a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderedListNumber 5. **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHALL** contain exactly one [1..1] **componentOf** such that it (CONF:8386)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8387)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8389)

2. **SHALL** contain exactly one [1..1] **id** (CONF:8388)

3. **MAY** contain zero or one [0..1] **responsibleParty** such that it (CONF:8391)

a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8394)

b. The **responsibleParty** element, if present, **SHALL** contain an **assignedEntity** element which **SHALL** contain an **assignedPerson** element, a **representedOrganization** element, or both. (CONF:8394)

4. **MAY** contain zero or more [0..*] **encounterParticipant** such that it (CONF:8392)

a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8396)

b. The **responsibleParty** element, if present, **SHALL** contain an **assignedEntity** element which **SHALL** contain an **assignedPerson** element, a **representedOrganization** element, or both. (CONF:8396)

5. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10132, CONF:10127)

6. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10132, CONF:10128)

7. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10132, CONF:10129)

8. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10132, CONF:10130)

27. **MAY** contain [0..1] **component** such that it (CONF:9491)
- a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
28. **MAY** contain [0..1] **component** such that it (CONF:9487)
- a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
29. **MAY** contain [0..1] **component** such that it (CONF:9489)
- a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
30. **SHALL** contain [1..1] **component** such that it (CONF:9493)
- a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)
31. **SHOULD** contain [0..1] **component** such that it (CONF:9495)
- a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
32. **MAY** contain [0..1] **component** such that it (CONF:9498)
- a. Conforms to [Reason For Referral Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.1)
33. **MAY** contain [0..1] **component** such that it (CONF:9500)
- a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)
34. **MAY** contain [0..1] **component** such that it (CONF:9507)
- a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
35. **MAY** contain [0..1] **component** such that it (CONF:9509)
- a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
36. **MAY** contain [0..1] **component** such that it (CONF:10029)
- a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)
37. **MAY** contain [0..1] **component** such that it (CONF:9513)
- a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
38. **MAY** contain [0..1] **component** such that it (CONF:9515)
- a. Conforms to [General Status Section](#) (templateId: 2.16.840.1.113883.10.20.2.5)
39. **MAY** contain [0..1] **component** such that it (CONF:9517)
- a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)
40. **MAY** contain [0..1] **component** such that it (CONF:9519)
- a. Conforms to [Immunizations Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.2.1)
41. **MAY** contain [0..1] **component** such that it (CONF:9521))
- a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
42. **MAY** contain [0..1] **component** such that it (CONF:9523)
- a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)
43. **MAY** contain [0..1] **component** such that it (CONF:9525)
- a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)
44. **MAY** contain [0..1] **component** such that it (CONF:9527)
- a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)
45. **MAY** contain [0..1] **component** such that it (CONF:9529)
- a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
46. **MAY** contain [0..1] **component** such that it (CONF:9531)
- a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
47. **MAY** contain [0..1] **component** such that it (CONF:9533)
- a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)

48. **SHALL** contain at least one [1..*] **inFulfillmentOf** such that it (CONF:8382)
- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:8385)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:9102)
49. **typeId** **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.1.3" (CONF:5250, R2.1=CONF:1198-5250)
50. **typeId** **SHALL** contain exactly one [1..1] **@extension**="POCD_HD000040" (CONF:5251, R2.1=CONF:1198-5251)
51. **id** **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
52. **code** **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
53. If **setId** is present **versionNumber** **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
54. If **versionNumber** is present **setId** **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)
55. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan of Care Section (CONF:9501)
56. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10028)
57. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10055)
58. **SHALL** include a Reason for Referral or Reason for Visit section (CONF:9504, R2.1=CONF:1198-9504)

Consultation Note Example

```
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Impl</title>
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EuUptSy LFnFYLGbc ocqhywcYp GgKvUL UWSeAJ LpmqKzY ursofmak gvlunb mRCGGUVZ
AprWvI bKdEf iceDgoKBW bykzatweX wlaPcaHPl BcsqMEviN RkgQid gzoHDr viSTX
MJLOGLe oBZGsPKq mmCKMlmwc xLdqN svWBB BbCpLHNe pqMLc
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NGtIdhEwq JyLfy VrVmno QZoKn DyjuVc qYSTos DrabNt ZTXxpAn bHvbLp UNRPZ
GXhLHFvQw
EWfOR UPObz WCRzuemiS MwfsN RDIGfRL vvmnJXXcV QPQSL GGjHHikDZ xSyrn XbRUK
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WKRShfS HmvfN PRSDthR pkVJjuSj HviUcuk cfsrST IcxNqscx WtuKLA EiWRov
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abXUggSU gWPSShX sAITE hJwIUg KNcUARIn IePlIJVs JUIvCPfVz SmYgkoE XpfajNO
AcuiWg UFWPiBb EGdTuRK oIWgZfKJ ImFjzpW cSHDNcBh ayscMQu iIxKBgEXo kcnPRV
saWSR rgwQwI ypVLFR gzwTFWm rOXleFqN PvtVTXWrU HMKnpjaw ODWkjrvBC wNZkI
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cgxKL kBMgoi VFDcvvr KFnICWRMY WGGyLx EzLSIcGc OeOhA DpazlkhVv WkJQMOhJL
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    <text>UTJNg DMDKWJTa nEraW uIUQBxc JtoRe NJhAFnS BqYpcHKi aoPZWX
guaswQpf pFOja iruDVDON DhAaUkSN qZeRAk GPhgcF SOyEYyE bHFVjMUP QLMOM
EsHkKFLre tPDvyrZ AbyJmXg GLdKbF
xQFFIavj BDySFr gPNkVBL AjHlhudIW VkzGt oCoksriO dGRdUaVSF IJYolvIm jZsPDWdg
ehACpBaur UfzYFYUVh SRzWP wGwHRLMg xAtlvfQQ tjeRaYznr QHtLKSDmI itoRGX
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gSMkfYJR
vlkTqD JvoOnAzhi GIqiVmhm SiRxGVX joYDDgIM XssmuD SHailBAKB cZryW uyFQKWWC
qneCFIDAK NMtHsxpOG QaqVUgmwq kwUIfu TeGolt yxyuBB ILQzezIV aebDdOuF
wLoLm mMGgghylC wDvHK NTuna HXYpKi qfGgdtX MQMFJAQBx chLqyVx kDGPvUvZ rybRS
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AuLCAoy fgwsCgs oOYrrSpQh TrWomHsro hdxIx
NKbPnd DHEKc ilGoicypZ RteFJMV iEZBW TCayI datvDKRf ASQwfl bulsERNxd
EmxPIBisy rKhkiX kGREOhmy DUGlMzIqY IYwMnu bQgUnFcVY zckHlO XzHBKPHqi
vvJxauJlz ODDLKF OKamfZ TftPvmHCP TKdaalBF
lAIKM blapTMIK STJmjZKxV TzKdA sBpTSr LKVBfDdAm BSikQg nmqCCswFS cJbonVz
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zmsqKUO ylcEeCuv yvMZvP kbqjup mrjjOyDEF ONsFVX CVSUKO WgYFPk WrdHS qqJGwY
GSZYqyf ruhWzpr EJSsm FPVUibtN vDWBCmmeG Sewcfh CpTx1 SbchEXXC ZcUSTqmi
RnhIw oNNTU qQJxW wiubFamEW
EqiJfHtxd HkoAp DVOGFKV OLKUt nxEtqd sLhEJTTQ brjXONK ucqiwX ZHzvdDVT AOzfn
jgOqug hGJBuQYIh dJSgbS FdilU HKMeFUuny qwUQCmN yokofXBOS NPcrNDtbR ZeIZa
ZuzGTbRuk HjTxwOKil GsXsd mVuchSxI YWRqhliP hLFHT dNWqJobcP zSRCrv dcPHBuD
gEXnBC BLAQeIF bIBjHBgRU EWHQl TmeKjxkVd mlpEqS bGvrcgv
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VzXNXlFk YrIrKlFuD uyLivHw BSCgCl HZtXUZm eHJEjlXg FXbEdwxyF RvgWOGGo FudLw
OaMlMv kUTfvMih NBMhWD SqBaARoM lAZHpx jrnsgh fhWQlyOE opWCWUu YUdWeG
DtUPDy EHLBwow GwAZvM pSboob ZBkTVmoVT gwoJTEMt qwOXGRkPz wmtvmCum zAqAfaIM
ybovUlZ agHSu CEPrk aRMbEUSx FncXT tGMWAO pMiXrGY AApKVhVf lJTVoucs
Lsdukmmh HeiapQ
eUDgj ydoedw EbEhFoWH GenMUCh TjUaW qvIppWDT DGkiI GKRdStpsf fVCUbQUO EnbCr
eDqZUMPY vzzInvB hvplrUaCi vGUelxTN WhLMKWdmt Rpjlfokb althXtYSG ajwSA
MkzUfiM JzTWYC EXDOym zcphJ BtOqIxeA softLiUpf wzxdXOo nyWwt FmfWRPKw
MLjfxAMXh OxaqIIYHx irCDeQE acRzhoJJ rDtAPjXr AhPIsuy bPKGA KsEynbr ZaDMF
XJGGhp enRVI OnkBEhrYH VGyEvVKg UkCzBm
wRTgndk tmahZcv cXKVGn tXNvyPAXH qDxtYaph gtlaEbd FPrRnUy zqYLh YEZIZiQs
aOGLB aUYJrdd DIJEPJsyB MzHrQMIM Hmpqracp aCBgW lmTDdztIp STmLMKu fFzeeX
Fccuhtfjr opIsNDvFf WWzqMaVDn Aamxfinsj xArdTZ EgPwNG wlHFiX oLGBNyGc
mBOCKJxvE UljVO cffrgH VMPSq wbEmIpSm EkRTJBZ gdYOr ZudKl RvmWwokB dlnKy
GKbGeg RMhTmszMx ldVCW DWnvNA RciZdym eTArIbNKP DQytynTLG bkeApQVY jtbkKUaY
yWQbFkK tRWhPwuP DVqZhVmoB JTRXEV YAPRMEwO haPLmKCb
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<text>wyMagXHoT LKSPyZR fkRtYN UsNkRo MsBxrIp XJgGCL eypuD
JqWrZCaDr ZfCQXKf TqLeFnGJ fyUpAQoPA SKOuQIm AUEabzu CsZHBtepd fpqHKDzpi
epwHnGWtd luqdi sBfSVy Knxwns PbVYQSUC scqlA MrSGCtchm jRrUm qwvjtx YMWjZ
MtyClUXkK ejjSd bqxfheE GZhbQH GIMKI cHIVgqw gZnOk CwbDW rGGcV mkkuhrerR
OZiJpGmwM eSyTyij sRFdaIst FyOhu ZhLdc wDKCJ vCqwdHzYI jNody WAHHvmWS
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ldfQA wjJkOmO jCjYL FlOwh mfSZS BcVJbbd CAXuRT qAbKdt bpLrRX xfQwrO zXxUy
VWrkJDx HHVoGaxzf MaakVbBI rAnEj dgtMCAQ IgpWG FIUaDhE WHbFCBOs
coutkJT cxEMUs RGMuA oVVhiGe FbMrUgtTU ZdKlB FbuzReI GjVbZF swAAJ lDMvoIZ
dyhgSCM EhTms MJEEGV ZYPEqcJc MwCgt ByngoQCIX RLZfiJO DzHtmo UXIcGegd
CUtmv OETXNqh IbqgSG nKPwAIob gyznxx JBECgiYJk NUPrzIM prOmkv GBVuthf
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ctZTKjM sOcHszTvn HcrtQ crrcjG KOcwDUCwf rdPEgWM LsOACgU frijK JOtmZ
RhXuoVov aQKFAT fJzrK uqQXXGThv LZUPaFg IoXWYflhE UmvwdnG uJDPFbn EiFlx
lmKEQPAQD Kotkc tHpcOf luadPfsi itfURYMS Ihzui nvdnOdKhV ajfeTgvxN qaxWb
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codeSystemName="LOINC" displayName="CHIEF COMPLAINT"/>
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        <text>yPDTPnXT sJUhbNS EBlxbcd mPvYfVy LeCxGXDCs QysiuMFT
PrbJKeHoT RjHmMUOVC uoNht faHtFYld ahffKZfaV SEfKPNA rQgOU qgasVXFYz HkJXRC
tONMkzsb cnKEpQJdF gQSFgak IUFGHy yHJBF AMMLzVnC XNZpW nHSffOmf eyinNSeZk
lsfhFUKyF NWeDpVbm fmjGgYUO uOhCrXQvf cfjjpe RtMFadkpf TXTAbrO jqjGvTJsh
WQuTOhe xCACzYbfy NuhBgD xavPMV ykaSWHpMR rbzMMDX DxGUQA aDlnZxuwN nGZPx
dChITHa
kqURdG kzjzrSgH TPIAJfLB MtmVSgy rgwZYms CseKMLSXn LmTPYXAIN fbQBANuTg
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codeSystemName="LOINC" displayName="Chief Complaint and Reason for Visit"/>
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GKzlqnVL veOYWe NuQsSfz LEBLzBL MAbdsW gdxHeLGmg LceyggJ BzKoDgh sTpWiTrx
Cdhca lBOgpbq MGYXYqx jVexGJy YpUgTspMc TYFdTS jhsBSCeEq yYits ITSmYR
QgNIjMVqL UCzCt QtOQEzkoh HEHOMVdi UfOBBI eWmmkr
ckcqY WmWDjYZPt GSCKXBJz yRORXKC GpvWMcia lsYrhzyeN FCdRVP gNGpTk dNYbCjH
iUmcOWg reDifco xwvli QksLkohGf rnEzvEPIG ajBjwq sYWGIl gelNxsBjj RQcbKXBnO
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EjLXh DLeAGltKj gIxbV YdFuooKnB lrPgiNyXq lmRrZW arpdC zrAorddWo EbLKxI
DVPLLm uByFjAKT fXiUUqJZT CwenJr bfTFWu ZmzNk bNaRcES HqForEx SxOWMUbK
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codeSystemName="LOINC" displayName="Family History"/>
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aYqETQ XTlMmQzW pDUDjS WBSkIAQ BVHsCOxQ
uUxHyQE nTopr iJMweaV GKmFkf gOghbLyn UrfwN dUVfQOmA wHBlRcB qzHiB KXOqTtko
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codeSystemName="LOINC" displayName="GENERAL STATUS"/>
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fBhqIDzsb uOwEE fSfHnfVUE vgyzQiJKJ RgbTIpv PXOfU WVtpLjZ jcQxY vbNEcbr
peuCdmLo erHiaO drIrJz USLIHwvFh MWGdkByGq qulsXu ehVIC NqBLqSO jqqUdEot
CFrXLF
LdaWmoqJu wPccnIs TwxWgjN boDyhFjz KbPrmJo TkDKcv JAQKg NpSmUNKfp iMBfUxtv
yqBgDisg VkKSy AmEWQEGtR DdAKEZwu tsQoYnxCr KsDgO KppaCre mDASao ChFWI
RUPaMoVAu trgwFUYrO vzopBRZUU dngKDD DGzSDBqvE rhPeuI AnkJCBY nJjwEstld
NnUkIaere XWFBYtB TXgxijia xdoUyGIKs AcYIHQCc sqQvTsE nncQsNg lRXVE
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    <title>HISTORY OF PAST ILLNESS</title>
    <text>fMZzCl RfWaxM CgtkFv dVBspIjRF FWxXB ymCZy zLLAQK FYJOyn
NsfSQuH LmhizAfO uiBWmjt YJkGbTl uLVipREO wNCVlBQl eQrjhueD DmYGnes nVmYbl
nUWlJos CroJnIOQN QAlBoFkUc
qlqut wRXEW BldoD pGNQJ sVUNWD rQzuMuLUP TuvPG ovawmvHG mGRFz PabZbN leLPl
EdYgz Kfoak PLZZz KGxNyq LnaOTC BEFwUixq JpqxEV rgyQlL RoNsVLIw kWzphDZaF
bIshULjWH JIJMV lZgvMgS PRKXUllQu NSLSP GirGhB eXMTTqB OXbfMd gqFFuQ
qxWsykV ebYQhMf tMXRh tpYSQSPvm ShAUk tLguJtLnF dQyMCi HaWhKq HRsvxY ItERE
LsvnsBgD bfxbbDTh WnluLJRfC fZsgRkVWz LmOTdIpRE KAFgQZ rZQaCZ pxTTo WyoIu
YBQPtbBOW VjFesSKi LBduWy
</text>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
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codeSystemName="LOINC" displayName="Health status"/>
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codeSystemName="LOINC" displayName="Status"/>
            <statusCode code="completed"/>
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codeSystemName="LOINC"/>
<title>TEXT FOR TITLE</title>
<text>UHpWnI qGpBzxPGT JEjnwWcO SmgDg XfFyRj gKhKjdKfx FWofzzaeG
qWCnJ gpvwHWPm BbAPwP DSLHY sLCKzXTNI qSFda CbztFN aUayS HgVFQ gdYQaIr
fhFeRg LOMKSU Hxpes TFysOIW JgBGMMY
mbTAFVSRZ mRBSOE SCHBNF yQcSxM KVRTicqcM zEXtE yPLDnNa iOqeCG PlSvVzgkr
XTOErh aRIerXuA wxAUj tJXuJ gxtAWSqg iJuxzqnms Of1Ra ZJlnFBY REHfmGk
KNJAOWKg rCJNr swWaG RfoNucqAi TYmHF rbrDL MXyoWzpp rbxGfNp FeIMY YsfnFRgTu
uGoetoHdu LDZOCqY bllPED JYXTV Uqugznta oXFWsQ wSQcRntH qNsVVT KFGVEg
doNZZB vHRXYvkJJ
vxsOopokh rauwIhmM peEmmBhC fjcvyo QJByixx odchDMYau RWpFO NonKLweC
opJcr fyftuzO ZrQmJs OJziGDYXL rGOTQD ODapwQ ufjEZ LRMiGuG DiOvp hMlBeqa
xFfHzZWXD BDBwu INcqqfk DjhJt zcxSLogO PBOCu wcddv ayRYJpcaC TuFvC
qhUSjeajO JIAERzJ SUIlqFNL oiiLr SYIbY BUqtPGft ditYkwc kbUfUmYE vtIma
HvqFnpZiF OHHzm
pNIKY xcGEkQl txFbIVgpW bIGel ISrFz lsjjDpQ tpDQj EoGKo UidBhB aKxGYbeVq
SgHGBe svBmadJ mCHHnZjZK mFOyMnnp qkQFMFzye SGOsp IWfFurtT sctPzRNyV
KjCBXKQ ScfbTyOgY hgnpbnIXb qxFTkVNG TrNTQkxau qSTbgyIZ rYevd phmGvTF FvFjC
XGRru ZnFngN jvbudSL LDfWtsQmk mGHUk hfsVAbIo ecYVRmb CavmqBvgV ZgCFXfDvC
mKWumvL
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    <templateId root="2.16.840.1.113883.10.20.22.4.52"/>
    <id root="MDHT" extension="1200645773"/>
    <code code="1951397135"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
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codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    <consumable/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="ActReason"/>
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    <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of medication use"/>
    <title>History of medication use</title>
    <text>JzBmThOmr eWIFrcza AgAbiAPyS XKDhCVDcC uSIbTs XbnIODqe YteRH
TJukLrlwd iRmfoY FMWPt cerslBK sjGhMEqfq rIyug lODpd AfyQykjFV ZgMHZ eDQPVV
GjzZbXExQ MFzRTqgfI JXBqvwg HYYEIR gGUtRmGw oxCYKT
nHypgfw DDNikgi MouaVh BXjORJ ZofrDD azQUERGP cckixlG NWoyHkYmL MjTYbHmmy
HTRELp zHzSR GmnEtdq frTohq nZwWkdv dVFZZoxl bZAESD KPiWMRLlP VgUaIBt
wkmuqqrX aHLYdvmW sYRszt wbGki kllso LatpDb MoNNhkFE yWALizh UfwAVM pceEPC
spVhR wFTTWaQG kPxjchzV LxabB uGCWIY oFrtQGp BGYHk bDqWZIZO Zhmkgy zgLcHTRY
eqkbyJMbr rmGeMNqn eUAoSfPTZ hCHFZKwKg sEjRRCz RsvADMx HZHjEmHLq ZNYgaZPM
QPZsNI bJhNjtpd Xlagu
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    <languageCode code="Code forlanguageCode"/>
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        <id root="MDHT" extension="1257898572"/>
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        <text>Text Value</text>
        <effectiveTime value="20190227"/>
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codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>

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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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    <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Problem List"/>
    <title>Problem List</title>
    <text>tEsPRhTUS ypDeRsw xwHfZMiPm dMviZy gjVtItQ yyzMOKng qpWUOqW
TDVnEKz zOkMAZ RSVFq DzVzBi YSuAd BxZjkjU mgsfa lxNNrvzE AyXuCsL XiiScT
gqaSZJIPn GeviG SLfgg WOKhJo GjFaeR EOOXT eeQGqy HJBGJ TsEBZNDwE qjQvCtPyQ
fUOBLzu EKNjQ cKxTJgJA RWWIS BOFJGR LrbgIQee IATofY oWrclA URCVHjVQt
vpmvlcT oDAHS ljwStXq UxHAYPow XkXLSfx FRsOGnn gVeyCDIW VetNGP veirkOg
pFABgqrWI MLJBkYU
gLZOwFe kgjoDGGx lHucmQ TrYBduM iCrbmp YtOTe JhurkQGbm ZYhIFPl HgprdB
YUIHviXR QUnXYi xHhLaCzu vEqZRUCc aYetsg tSTxV HqJBfA oyWYLyR
vtOPkAS dnUbfbk hkzxFCz eHiTA alkZz QehFc HZYOzyo ztIzGct zNjsnynog HMneong
REBpdbz UTqmlnT kNdNpjZ KEkHB MWpQjUX EjXZPpgDW lLoZH ZrfYwWB PGQTCSzs
RmYdYkxx qIHUKnjm HFtDKsPi TNZlpX mvYLA OAAXnZr tJBnutar RLYTc EtSyjOrb
wUafFI GoBsc qIjkaQz YaUPzE uSHDXwhoX BpzfLEku lholh bDqofZvoB WscdXDhD
AlsjkfBx KOFoZuY ZUhBXDxr fWzbxphZ azmjZGGC yQCNsFhb HCxrH KbzeLg UzgoexlkQ
zSdvWawr YRBEUh BkHfpocK zKxVTN HewQmLCN yZQlt arYHCJO YBPJuB KaGLie
</text>

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codeSystemName="HL7ActClass" displayName="Concern"/>
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    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of Procedures"/>
    <title>History of Procedures</title>
    <text>apFfJ AOuBDdtfX yVEdFz nkDbwxBeL uQswTOtXB ffNMFXNZ YaNIQ
kkHWyICTn fpKHAT eXPGxpRy BHJdHx TKtQQUQ EfQiw yzeKf yspAqHC chaZU RKgzH
osYmAw VHscQIMw jiskECpp YZAuFMIP NoMptaS Bmfosx zDiimPypJ QfScaIqN
JgkBNCTm ppkyq RNiOv qJXhE YYqDgOiQ vOqQQB
EfejM pSkmotSN YZJgQ eZdvZG uZFQncNK xynhSk iNYmYnGig nVvzXTWE ZKpvhIKyL
kLthm BdjFcBaV TABnSbTk eUDGc ZqiAl eaYXRuKph
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    <languageCode code="Code forlanguageCode"/>
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        <text>Text Value</text>
        <effectiveTime>
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codeSystemName="ActPriority"/>
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        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="NCI Thesaurus"/>
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codeSystemName="SNOMEDCT"/>
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codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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        <code code="94296819"/>
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codeSystemName="ActPriority"/>
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codeSystemName="SNOMEDCT"/>
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laboratory data"/>
<title>Relevant diagnostic tests and/or laboratory data</title>
<text>tmfzj XHemkGfDa axAnKMMaE bduilGQq nVENJoJRE mppWsmNoc
OqVaS FqHdSSrH LiiJQu tbfHduk WJyiXFo iepMGJsHf vJjJBNPQG KpmhLxdYn vQfuv
AuJKV LnecYOnCq fiGdwt AOzQhKy ZZNsCrCt sJeYy WqQNuTe xXLFCMYEt ytCyzwo
mjBKE UKZOJxLv qrFvwcBnH CBzfnjMP nyjChLs xvIpUO cyFlihoVf LiutVI CNjmMT
NiNmYkFZu
BvODxlytw HqEFGfuO McFFyBrTW PlsbR RHTAQFUqg KABuwa EcOOYZL ZEopgGbjX
ZGpwfCP HrRHMLc jnrdGyeN LTDFuDZ zvhBY zBPmsHt jYKlAYbPB DiUsBpgs MvUqq
IjdlL RoyGV VqLLDaGMq rDCKIuVEw EcaxmGm IVShWXGpU klURv hOksxrGno
SvKHULqen QJrTJSc fTVVWG xvPTjIhQ OXqlwbWSq IKZjdHBQ bFqwpHy LBNDTd gUHWpH
AgJOzoMq aabBjyWZ CarlgGNjG PTMjafW AMPYfH
fayFV TsGynBHVH eIONM aZtpgPefk QefJja lqmuz QvKbxiurp MrfGERM qhBsttdk
mzsJrrJ pZTrFSGE EnEbQkOp ufzQejz ltVROC uLkwG FGqOuo mxIOxf ZJFAE jZhjY
WckWWCXF ejljyNUhX epviQKP icFIky wztLWzw vXdTFFdR jENse EBFgf PGHrdoiW
oVTGopvpb pbXKxOSKR kBCICw gHvlt XYPZOqg vEEuye eNIJxrG ATBavFQ YfqbdF
TomWaRst NMLnei dLKTGUN pTfZln oWUhod
scljAKk ImQNXy XzfBPmKHZ BiBHTWFG oAotHN gexwH iBENaly YKmipT VaCdpqQSV
NjlFCj EVFRO weNVCA coUEbR zXwuAJGh TOcNRfYsG oNHGLce JDMlzYtSM EVJjXTM
LWTVo CjZdN JFvwbUGB sRQvUv yFAkvbjd UySLdNNe dPqUlW IwFJJdw QUzpcIm TxSNqg
JBvTj QkCzjSF UUXydpMCW almBnlM KpdXQ SDEuIND HotdAdh yCCQsW IavMgRVjc
ZgOnQxOs PbxUeG BrxpLIS
</text>
<confidentialityCode code="1876208178"/>
<languageCode code="Code forlanguageCode"/>
<entry>
  <organizer moodCode="EVN">
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    <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
    <id root="MDHT" extension="780915814"/>
    <code code="1345124324"/>
    <statusCode code="completed"/>
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      <low value="2019"/>
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    </effectiveTime>
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        <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      </observation>
    </component>
  </organizer>
</entry>
</section>
</component>
<component>
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    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"/>
    <id root="MDHT" extension="629945784"/>
    <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
    <title>REVIEW OF SYSTEMS</title>
    <text>Jaoid grEAt dAkdkax fPxzdDDEy PgEeGCUh xqzYlo VINZYOXPO
hOMVD pRYmnXhF AomdlMZzM yWRahrfMK PkySic
</text>
    <confidentialityCode code="1310330767"/>
    <languageCode code="Code forlanguageCode"/>
  </section>
</component>
<component>
  <section>

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<typeId root="2.16.840.1.113883.1.3"/>
<templateId root="2.16.840.1.113883.10.20.22.2.17"/>
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<code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Social history"/>
<title>Social history</title>
<text>CqMoSoN EDnhAwEYE QjriCu QqfPS YHdpaQpfc NUoVMfyjf teSNEVW
SLVCQnBlN sIMqXOsNm aESvDaz iBcLUCOaG lJahx ZeGWBxutm jhcwYESop BmrBnPXhh
QBfNAV QPRnRnAF IpAUUnnaqZ fGcvhCoo umBUwoaV wtYQGuhE bccPgJH APRls
gzHnQrLEL NiUicU pcnXpH UfFwlJ nLptJr XETbkXK jslfaLA ITmLpXx kQcGMvpf
wuLKPwsao imJTIN mPcuAiG ZVeiz XtmQSUUp GkhBoo mYNyWv yhddVtOLs dNvXB
znYNmhgg QthpX vmuAT mHlPdDRUD oTTqZaBFa tgTEvR YwomBOvCO
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<languageCode code="Code forlanguageCode"/>
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    <id root="MDHT" extension="1378485954"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
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      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
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    <templateId root="2.16.840.1.113883.10.20.15.3.8"/>
    <id root="MDHT" extension="1345068329"/>
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
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    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
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        <templateId root="2.16.840.1.113883.10.20.15.3.1"/>
        <code code="11778-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
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<entry>
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    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.78"/>
    <id root="MDHT" extension="927509788"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <languageCode code="Code forlanguageCode"/>
  </observation>

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```

    </entry>
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      <typeId root="2.16.840.1.113883.1.3"/>
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      <text>Text Value</text>
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      <effectiveTime>
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  </entry>
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</component>
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    <templateId root="2.16.840.1.113883.10.20.22.2.4"/>
    <id root="MDHT" extension="525858078"/>
    <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Vital Signs"/>
    <title>Vital Signs</title>
    <text>OidpFwPlp EYZKEV IZNHkeWYA IZkxEkBGL gREUbQB uwPQT qjgmfGiIy
LKYNQxS yXxIo NvcNeE SgPQCM
pfvoAjl VjrAupCsr PlvchJ EWEuGkm fsuEL ScDnHmAK usMqIHu UjlLxPkb wjIKzZlS
lfdnam pwZJGema ynyyGl gfITr
</text>
    <confidentialityCode code="971202716"/>
    <languageCode code="Code forlanguageCode"/>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
      <id root="MDHT" extension="850720567"/>
      <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
      <statusCode code="completed"/>
      <effectiveTime>
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        <high value="2019"/>
      </effectiveTime>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
          <code codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
          <statusCode code="completed"/>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
</component>
</structuredBody>
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</ClinicalDocument>

```

Continuity Of Care Document

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.2]

This section, Continuity of Care Document (CCD) Release 1.1, describes CDA constraints in accordance with Stage 1 Meaningful Use. The CCD requirements in this guide supersede CCD Release 1; in the near future, this guide could supersede HITSP C32. The CCD is 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 practitioner, system, or setting to support the continuity of care. The primary use case for the CCD is to provide a snapshot in time containing the pertinent clinical, demographic, and administrative data for a specific patient. More specific use cases, such as a Discharge Summary or Progress Note, are available as alternative documents in this guide.

Continuity Of Care Document Header Constraints

Continuity Of Care Document Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8450, CONF:10038) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.2"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:17180)/**@code**="34133-9" *Summarization of Episode Note* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:17181)
4. **SHALL** contain exactly one [1..1] **languageCode** (CONF:5)
5. **SHALL** contain exactly one [1..1] **documentationOf** such that it (CONF:8452)
 - a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8480)
 1. **SHALL** contain exactly one [1..1] **@classCode**="PCPR" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8453)
 2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8481)
 3. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8482)
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CONF:8458)
 - b. **MAY** contain zero or one [0..1] **assignedEntity** such that it (CONF:8459)
 - Order List Number 5: **SHALL** contain exactly one [0..1] **code**, which **MAY** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:8461)
 - Order List Number 6: **SHALL** contain exactly one [1..*] **id** (CONF:10027)
 - Order List Number 7: **SHOULD** contain zero or one [0..1] **id** where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:10027)
6. **SHALL** contain at least one [1..*] **author** such that it (CONF:9442)
 - a. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:9443)
 1. **SHALL** contain exactly one [1..1] assignedPerson or exactly one [1..1] representedOrganization. (CONF:8456)
 2. 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:8457)
7. **SHALL** contain [1..1] **component** such that it (CONF:9445)
 - a. Conforms to [Allergies Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.6.1)
8. **SHALL** contain [1..1] **component** such that it (CONF:9447)
 - a. Conforms to [Medications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.1.1)

9. **SHALL** contain [1..1] **component** such that it (CONF:9449)
 - a. Conforms to [Problem Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.5.1)
10. **SHALL** contain [1..1] **component** such that it (CONF:9451)
 - a. Conforms to [Procedures Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.7.1)
11. **SHALL** contain [1..1] **component** such that it (CONF:9453)
 - a. Conforms to [Results Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.3.1)
12. **MAY** contain [0..1] **component** such that it (CONF:9455)
 - a. Conforms to [Advance Directives Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.21.1)
13. **MAY** contain [0..1] **component** such that it (CONF:9457)
 - a. Conforms to [Encounters Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.22.1)
14. **MAY** contain [0..1] **component** such that it (CONF:9459)
 - a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
15. **MAY** contain [0..1] **component** such that it (CONF:9461)
 - a. Conforms to [Functional Status Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.14)
16. **MAY** contain [0..1] **component** such that it (CONF:9463)
 - a. Conforms to [Immunizations Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.2)
17. **MAY** contain [0..1] **component** such that it (CONF:9466)
 - a. Conforms to [Medical Equipment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.23)
18. **MAY** contain [0..1] **component** such that it (CONF:9468)
 - a. Conforms to [Payers Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.18)
19. **MAY** contain [0..1] **component** such that it (CONF:9470)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
20. **MAY** contain [0..1] **component** such that it (CONF:9472)
 - a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
21. **MAY** contain [0..1] **component** such that it (CONF:9474)
 - a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)
1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
2. **SHALL** contain exactly one [1..1] **realmCode/@code="US"** (CONF:16791)
3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:17180)/**@code="34133-9"** *Summarization of Episode Note* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:17181)
6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA
8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode** (CONF:5)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)

12. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

13. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)

2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)

3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)

4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)

a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)

b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)

c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)

d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)

e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)

f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)

g. **MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Orderable List Number 5** to or one [0..1] **code** (CONF:5326)
 - Orderable List Number 5** to or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Orderable List Number 5** to or more [0..*] **telecom**
 - Orderable List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Orderable List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Orderable List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Orderable List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Orderable List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Orderable List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Orderable List Number 6** **SHOULD** 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:5402,, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Orderable List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Orderable List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Orderable List Number 5** to or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Orderable List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderList Number 5 SHALL contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderList Number 5 **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderList Number 5 **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHALL** contain exactly one [1..1] **documentationOf** such that it (CONF:8452)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8480)

1. **SHALL** contain exactly one [1..1] **@classCode="PCPR"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8453)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8481)

3. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8482)

a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:8458)

b. **MAY** contain zero or one [0..1] **assignedEntity** such that it (CONF:8459)

OrderList Number 5 **SHOULD** contain zero or one [0..1] **code**, which **MAY** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:8461)

OrderList Number 5 **SHALL** contain exactly one [1..*] **id** (CONF:10027)

OrderList Number 5 **SHOULD** contain zero or one [0..1] **id** where **id/@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:10027)

27. **SHALL** contain at least one [1..*] **author** such that it (CONF:9442)

a. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:9443)

1. **SHALL** contain exactly one [1..1] **assignedPerson** or exactly one [1..1] **representedOrganization**. (CONF:8456)

2. 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:8457)

28. **SHALL** contain [1..1] **component** such that it (CONF:9445)

a. Conforms to [Allergies Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.6.1)

29. **SHALL** contain [1..1] **component** such that it (CONF:9447)
- a. Conforms to [Medications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.1.1)
30. **SHALL** contain [1..1] **component** such that it (CONF:9449)
- a. Conforms to [Problem Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.5.1)
31. **SHALL** contain [1..1] **component** such that it (CONF:9451)
- a. Conforms to [Procedures Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.7.1)
32. **SHALL** contain [1..1] **component** such that it (CONF:9453)
- a. Conforms to [Results Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.3.1)
33. **MAY** contain [0..1] **component** such that it (CONF:9455)
- a. Conforms to [Advance Directives Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.21.1)
34. **MAY** contain [0..1] **component** such that it (CONF:9457)
- a. Conforms to [Encounters Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.22.1)
35. **MAY** contain [0..1] **component** such that it (CONF:9459)
- a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
36. **MAY** contain [0..1] **component** such that it (CONF:9461)
- a. Conforms to [Functional Status Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.14)
37. **MAY** contain [0..1] **component** such that it (CONF:9463)
- a. Conforms to [Immunizations Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.2)
38. **MAY** contain [0..1] **component** such that it (CONF:9466)
- a. Conforms to [Medical Equipment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.23)
39. **MAY** contain [0..1] **component** such that it (CONF:9468)
- a. Conforms to [Payers Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.18)
40. **MAY** contain [0..1] **component** such that it (CONF:9470)
- a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
41. **MAY** contain [0..1] **component** such that it (CONF:9472)
- a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
42. **MAY** contain [0..1] **component** such that it (CONF:9474)
- a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)
43. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250, R2.1=CONF:1198-5250)
44. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251, R2.1=CONF:1198-5251)
45. id **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
46. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
47. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
48. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)

Continuity Of Care Document Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 infrastructure/
  cda/CDA_SDTC.xsd">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.2"/>
```

```

<templateId root="2.16.840.1.113883.10.20.22.1.1"/>
<id root="MDHT" extension="181189597"/>
<code code="34133-9" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Summarization of Episode Note"/>
<title>Summarization of Episode Note</title>
<effectiveTime/>
<confidentialityCode codeSystem="2.16.840.1.113883.5.25"
codeSystemName="ConfidentialityCode"/>
<languageCode code="Code forlanguageCode"/>
<setId root="MDHT" extension="10f80d50-690e-4537-9637-10096f748985"/>
<versionNumber value="1"/>
<recordTarget>
  <typeId root="2.16.840.1.113883.1.3"/>
  <patientRole/>
</recordTarget>
<author>
  <time/>
  <assignedAuthor>
    <id root="MDHT" extension="977654979"/>
  </assignedAuthor>
</author>
<custodian/>
<documentationOf>
  <serviceEvent classCode="PCPR">
    <performer typeCode="PRF"/>
  </serviceEvent>
</documentationOf>
<component>
  <structuredBody>
    <component>
      <section>
        <typeId root="2.16.840.1.113883.1.3"/>
        <templateId root="2.16.840.1.113883.10.20.22.2.6.1"/>
        <templateId root="2.16.840.1.113883.10.20.22.2.6"/>
        <id root="MDHT" extension="188932294"/>
        <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Allergies, adverse reactions, alerts"/>
        <title>Allergies, adverse reactions, alerts</title>
        <text>xEvtOPPu iFxqyYeUn OmBSJqg RFIGZBX HmHkQVLY VmljR xdbnMZuN
SLiTcdFqR TYJFvW bExoAIfw fLrRB IMcoZpi EdqYB YgGKQqo dVGzgfy LiypOWye
yUuHpVhN UxULh CrbpUgqvG rIAWABpf vdTlCcV yxqHVDBn BcTXcxdG nqtIF ilwVSKe
WbKiK XgLeFYxNS ADLyqzZh nwuYJFJeR MaxJaoy UZcaSDP eMtArGN twFQp BTual
cMlfurpN japAIAAdGq uIKAHeQE
</text>
        <confidentialityCode code="1886991048"/>
        <languageCode code="Code forlanguageCode"/>
        <entry>
          <act classCode="ACT" moodCode="EVN">
            <typeId root="2.16.840.1.113883.1.3"/>
            <templateId root="2.16.840.1.113883.10.20.22.4.30"/>
            <id root="MDHT" extension="165192692"/>
            <text>Text Value</text>
            <effectiveTime>
              <low value="2019"/>
              <high value="2019"/>
            </effectiveTime>
            <languageCode code="Code forlanguageCode"/>
            <entryRelationship>
              <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.7"/>
                <templateId root="2.16.840.1.113883.10.20.24.3.90"/>
                <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
                <statusCode code="completed"/>

```

```

        </observation>
      </entryRelationship>
    </act>
  </entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.1"/>
    <id root="MDHT" extension="1001631466"/>
    <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of medication use"/>
    <title>History of medication use</title>
    <text>ItLDtH FutnRh SKnpNn hDyvBZ QrRCPZB NgwGn tqvHOU gTWfA EFbig
EELXodTg sKTUP aZFUY CwCQUMb NMgTQ wxMXjM lCgxy cpiHKv hvzUGvsy PnrHWuRK
heTqIBgGD BciQMqWn hQfJza wKFbve vztNyqNe mFOdcx HMyWblc nWnCV CYAYkOWzT
wjhXeks bcvewp hdWKgrOj OeTPX Eneoa bZvAQpQNf BFxpg XEMZrJSEB qamtAIH lVNqy
siQPnWN irdHvwVS dLrGiFvHd bzWFX wqKNxb dnTeusai sEWXznzvi MOcLj lWwEq
TzGbnZho
FmDlAo taNfAfMK Vhfws MNhGyIn VkXCXYTW lTVYviZa MwmShNHix JWCpIbPv zcavPf
vGCZfy yutmDuwvl YjdbFJGL jngIanjNo twFxUeL vRAMGu zLYQtWt ORoKNttLY KKPkC
zfQsFYvBY ZzgqAjt sBPUA kgYcAKg TgFmvnBry CANgYyAi yKpWnZnx dmFGhz BVgBHS
Phdywxix MXNXF LErsVUmci IwcneQRqz UAELZfPL cGKqE bVIKDzb LFwCeyq sAjmjGTb
KyhcQil erSYY poYvTxaA SHlQv zXWTKF XlFMh tsxyFe VOYtqUYD dyAsct SPOwrsy
OZxBHfpj qvvCJpp NmBKfQqlw BfQUcxbRZ GVhtuLZv xGfTUTS
cPDaIGsV KyQUHyXb gCRrlZ FiOCUYpM gCpOnrW aQsETIze rOJzylsPG IGZZjf JzWMyu
hABPKJbC KVHoY PLrFR FOUjl fZkVWeo mRUbDl BAYYHgek
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codeSystemName="LOINC" displayName="Problem List"/>
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WimCO kqCYd fFFDLn MZMEPqG eAEHKA wdzRrWT QklQQWp fKfXKFRnU Qbsfly aNfpI
oUCgi IEyYJwD jcsQdYuG WWuPeKI oADmVV vKbMTEUg uZflmN hpPuMl FkwCBYuf
IhualvZ WJkaSowvG GxCBnj sCuBmcSl wlIzysjtY tkoediF zSWMmbjj BKhznGA cviyf
UfuSnyKag fLCDTq vaqSKxX UPPrsoFSY kqAssuo PWYXQjEe rABsKkd pYpPML vDzueEcI
JaniVx wAzLuotQe dEfAystAp fGaMAa BHetHyxI iCAOJE XQYBibA xhZOdWcdg gbphHJP
VtcoZGXm WgqwWa RUIZTVZxy PkIwmK mRrZz XKCTScI xFBHw PFFsm aLNpnkRUC nwmnz
XANxBOXX SrGTE qVuHGfpu oLOumk hrheVKhP
eSQKUeP JqXtM qgdAqef kQROe oViQfD cEnrMDzyF cHtCV LNeSHW SZovCD jIEEiRjDQ
RQRGas WjOGGLSH QMtkQrNo nsvDX cuxbQi GJbQGS mvvyCBJVP WFkFt lxjdzXDXp
pIrnd pMKQkp rWrsbCNF WYTYqasN HTfef EMSLelZKA NkMKqRILw dRNkioyy uTfLcdT
pSCGfXjvt poFpJp iQeuJtm dTZmaIf kqiCQ sptCqSQ BaTRDkcyU iYFSYJORW jvgQO
OIXEOhh plySikJ
PdRJg OkarmVkk xEQBmL lNhiojWeD lhVhpeoMV jKHgbG KJsPZaOyx fRYoTm yAsvD
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    <text>irCogsG DbMaxX jZelFJkk jzHBIGy qYShgUhGu ooiioWqcA TKDWFBu
ouqcobf zgHIv ljbzwwqJ IsoVgKPMb NVnAZmVj FkjZXGrUO tJSyGOCU DTtlYaFZ
QERYqRP hIkWsSS OJfMYxH ZCaprd Yplvc xjPyy ovFuWkYXr MngMPYYS VNRvNI
WIElXh OwBTEOB IBvgTFX gvvKiDN IhkXoe SiHyy EULzBx bTyaQM vcrqNp hDqvQn
IzULVb UQaiocSK MqWmIcdDq nIFNKQg KXObGbrm RJNWH rBsZpcCbv fUABKilo FvBeH
OzlwdNipt ggrxvcSs mxRZjiQgU jftMpvPa jXYFsV HhomC fJlnlIsX FNIPGxC
ikxES ciVTjFYR EQNUjlF BoKQL PpqeqT ggLvX KdpnY oUfsngE sLwPHDre LZGqsWfm
maJebSMI HcjMZNn yfNhIsfbi MknVEJKE HDzARsP pQPCo necBJqp GZovLWXR naWvKeyD
arGhx nEbrM DGnDtv
LncynLcXY ITVvhXYXn PwhpJUJh peJpdgV YWImcVHZO HhQARy RZXYE BRaJBHQiM oxZJy
TiZYDLfj ivYMCdo BmREak CMdMWdlNF jemhd iRkQHPL dqbeRKJ bkOmHJDLX RpbZSkvTm
shbBc dKxvQlKk QGgZEr JSEiob JJTAmWn nyjNBrWu Bugxcdj mmCuF bnEML HRpSU
eDuUaC RjccFZ iYGYsGu vGjFKH fziWov FtOVPPS iddiSEFB JbtEJI EtSHIxx oHVqQ
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codeSystemName="SNOMEDCT"/>
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htNNquplN xBTdqh SCuWTFPm ZzMtEgx QKckH eqDzyK PCItWT zUmeHTEEX yKSfvsM
xSORTVYur blnrOR bFycU HmhbWE fwVkwQi EXrSU zcWgYDPj IvInEiD KffchxW
bHzWYWEy pWFhvaXO yaXJPk OZFEHYrQ
pcMtDR egkac NJZUyWX oNSTWwx GckwwUBNX eBjHSDozG vDbFxbw LPBZbwOS PnOPv
RHmiDCDN XBCVwDkx bewOVddMJ ueRyxuf HoITKz gROPSLBUL DTROC HVARqS ydWQBcot
jUZeT KDzFsXQD CJDPy ZANivOvu XBpMICrcY mRRnoxyU yGvZq vpqBIL EzcSptBC
YFqZdSe fJOMZ HXvHvi qbZmmmZiM vDVLtssM PRTUIjNbP XxMbOVk CULueGYk
rNMBxoHef XYlRu UZbCk FybqQFaL JMNzZwM hegWvRXHk LhcoVdqv BurMZv hepVRNlMC
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codeSystemName="LOINC" displayName="Advance Directives"/>
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    <text>TtUfPvl jWVBK YxJoUM aPXoCno TanNOhW JgdqxLmAE ESWMQ FthsWZ
xQQliOD SaCdEzByn WXVcCijv zKrIJQga IaExfqgEU KXQpfcy ponqERCY jIHTizILw
STivKA fBLRDCu tPqMkQu rWixPq qCRTliR LIuzYkLHo hqsZC bdRMR koubIpE dZKXl
WYevaGChj nPuZkgb HOYoX lNUhGSe KpJAFIQJ GiaSnDy ptvWRjsY htFdEPW DDvnw
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        <code code="46240-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Encounters"/>
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        <text>pVAvUkilf CCkCYS sFYEDBZd PvqtZzjJc PSViUndU JqzjcRJP
uJykhJLfO npZFj eCgzyZvja jlmoRYDU KWIEfQT RZUBMCFq KbixozbL FzdzhAHK
dGyUF ptqXrxxQ kxxBiZn tQHHboGL LsBaDn cbEPMiAWO NeQbUs dTUOzSaEC QeLWNJaw
iqqDo JbZTpuWom PiuOG JCEkFd baLOBZCP GAwwjISO pBgLUjWpQ ehsFcWIAd kokUCKUn
ueRIGZf yUUpE oRqecIXXZ vWxns RWoklkuWv UHrtJQIP bzTdYhM VsSThT ojPQZdsE
dNKJalC MeAdTtNgY iSpgJfb JRtMX daUZA MlxTrT aiqFvRkOa vPAoKGvV
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codeSystemName="CPT-4"/>
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nWblBhn zsRdG sccid SpZxT nniiQ DMDfYBrZE lGFklm AcyFyPnoe GQKWL qkuJIUDO
bWYiaV aPGWK HdpUVzq iGnkOhbF uoLmPZG vvlasBsQ irDeEAIIm HAePuPTO ZjoMPV
JbjrJqD EQTHl vRVNqeq yeTnSvAj lGxeQGw jjAGPae qrbntntf OpLlDrSt WqFpvttsr
SBbeFUG
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GWMamkXR
hkuVnKxje YPuWw PltbHOZ qGsYmFLi fmVezL lbOuwZRH hsbAISqc fEtKbm uwKmtu
sBfleKka sjCbzAy zoCnYz ZOOhmeFjQ CFJALxS ofZANOeau fOIZT QtVmLIh
xytLMQaa IaWXD ymfztCJuY BxjPuoZw XURgYw elZWlvDKl mDdjQ tooiK HLEmC wQxif
kLxajBuI eYrGscbpm KnetCmI ECBYcpp rSKQzJC Dvdx BcjrKXMi apXTbGDD NRqroCME
PXWSdfI eIXiDtjj garwPctr yRnmmd itPhmX FVJmtb UpZZsft bGSPa yYwYlX xPhAQ
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codeSystemName="LOINC"/>
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BZSdlXi HUlNKiV aJdcNNK
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cVrzt eoVBDEwp lthBVgJ XNtkFUSBz geAsJR
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jQfxYnYc afiem fuENK VbBZJ ngrUKWwp DQMQtO luEXjFz iYqBdiFnJ GOBBBot aLUEqnz
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        <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Payment Sources"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <languageCode code="Code forlanguageCode"/>
        <entryRelationship>

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```

        <act classCode="ACT" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.61"/>
          <code codeSystemName=""/>
          <statusCode code="completed"/>
        </act>
      </entryRelationship>
    </act>
  </entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
    <id root="MDHT" extension="139139919"/>
    <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Treatment plan"/>
    <title>Treatment plan</title>
    <text>eTHYhi zfBXd IemrWdNb SSOSZxOk dFAQK vlcsTJYkO AGBrp
wBIasNUJ ISgElhjly gwjIUR dWSMS ltlPBlru ApVJsxh ooKvA cNKIZe GoEbOqZ
KkLaFM idFxIU xllTNbDoz RwoMcpnQQ ewQREj dxyKnaXaM RdOifS WpVVooBzs LieBh
HGcRBO SumGxTI gimGmsIJH arzNASbb cApbzwXP VWyTRKRHG cHfDh SeGDODN pFFXEnH
IuXlfH aXRcO pbxcc FopjEmA gyfRgZU GqZCoAanF vJuQWw kNkorGf lQrKldMKB
zTPzwk
STotJn ZERMiU yzTvEe OwGhs BnEBKXc ENoTzm ioXjmFM gFzCL cuoOBHi sBGtNty
mdmjDS BJCuJkOt uzVcN QrBufVw RxDqjG hXvdSJYq qfkovxS zXiHOZKX kkZRWMwt
XVnuKB rvZiVpepV reOEaeNj pzZvVUyqZ faXVrXe cOBxaozfa QzQURhna VWkTbZgRA
gitSeZuyz rmmttUuCK DcmqLONa ROLZCNmWa dlCuCS wtKFWyFZ pGgfFV AOedOyW
eZQQmp IycqhsL hqnyPAe akvPXzQ
UQxMft DyFIP LQFgv FcZlr LTZxDaGgf HjsxF fAbvXj aaGLYJcCH gBxxMQ VZriGS
dQjUkGURg eQxHV pzFPsyQyh GChMdZ qgJVcEk NqdFilCYC qUYRdn iTOHuYU pQVxg
lJuIXLf
TkpOlFic uQHVWk aEBrKJc fQFMd GMnqPXLx rcaJWaPg srCRqiz JNBQHm BWbtAu aitggy
zxOAVStsG kMiRG yUgVJdf ALyUa jRkHcNBY UDEBcgi cxhmggh EkKMC WYrEavw
pmLVSvtD vJiCuxP zyWQWwmzw vPEqd kQylpP mnlPOI GtgziQ WjcCiP fuxFiTN
FKhLY CBrox ePaFpj kmksCbD SPsfalFoV SXeWM CxTUC tZrQv iEcsD reHoNwV
DRjVTNBV KPTajyZFo mltfPq DzAwmm GWUio mqqPek tlgbuK pIRZvZG PUKpNGqa
cnRlc ROFyjYHX
</text>
    <confidentialityCode code="1971408157"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <act classCode="ACT">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.39"/>
    <id root="MDHT" extension="435876381"/>
    <code code="1706404328"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </act>
</entry>
<entry>
  <encounter classCode="ENC">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.40"/>
    <id root="MDHT" extension="777435794"/>
    <code code="131415488"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>

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        <high value="2019"/>
      </effectiveTime>
    </encounter>
  </entry>
  <entry>
    <observation classCode="OBS">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.44"/>
      <id root="MDHT" extension="1649307341"/>
      <code code="141074624"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <languageCode code="Code forlanguageCode"/>
    </observation>
  </entry>
  <entry>
    <procedure classCode="PROC">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
      <id root="MDHT" extension="1332544431"/>
      <code code="1351674171"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <languageCode code="Code forlanguageCode"/>
    </procedure>
  </entry>
  <entry>
    <substanceAdministration classCode="SBADM">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.42"/>
      <id root="MDHT" extension="1459950537"/>
      <code code="1656439284"/>
      <text>Text Value</text>
      <effectiveTime value="20190227"/>
      <consumable/>
    </substanceAdministration>
  </entry>
  <entry>
    <supply classCode="SPLY">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.43"/>
      <id root="MDHT" extension="2127752338"/>
      <code code="1678168490"/>
      <text>Text Value</text>
      <effectiveTime value="20190227"/>
    </supply>
  </entry>
  <entry>
    <act classCode="ACT" moodCode="INT">
      <typeId root="2.16.840.1.113883.1.3"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <id root="MDHT" extension="168002977"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>

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        <high value="2019"/>
      </effectiveTime>
      <languageCode code="Code forlanguageCode"/>
    </act>
  </entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
    <id root="MDHT" extension="607769833"/>
    <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Social history"/>
    <title>Social history</title>
    <text>gaDak TxIRuGRc zxdSDf oXLtK pfMMUxia aadlcEV JOyzFatva
LvYhtWemk GVhlmk xvGAdPOmG nIWmhWJ qDQkhkM FCEhzRrZH dsAAqSrC BhwtCHp
WijhcKMVt JuaXcobI CBpcz cmViFpjl nMBPcd NKpYyNctK XsoxvLKfz DNLXDZ hnJAyMb
VJdHQ pNXLYNcel mMqqwAA
jCniV moliaH kJFXhf KNGuwJvh aRmdINRR bAxMlZxms sDsGxeZI OyscP MuYsQjn
WaBkUn kEPTyC RQTYcW PDiDdJX mpjdQf DesPjPZp pdNMTA
lCGwxkh WZDZGMk WbKHTfgvX LRwIyQEw iTNQD pjPMUnpjW yaXNOL fwpnyTD xrLwFEU
jZCENBu jNOOb ffyCZI uarbDXTNZ FcljUHU cTDqv KscVEo qEVID ArtTlzXJT
esoBfqY fyDzdoldt twAWUd rYVEq zQbbHYv NPZsUPhs QxJFV ayFbli ofxRVV PnRgvYx
gwXtutl EHFpfPkKi vdsXlMH dNues TXaZV itHrGhab PsUID eSZEAD bNJxTM LNNDikq
WSHdnqTXS
XGcZI DNgyS kexcLf GmqSeM aFieJI DnXDDx SJogQhEP GmhHmdth TwMayh OzlAUJP
SEKck iTHrhW AGEFPRGf bWSUSq OPHEtCW aZWLDGBm CKqCdZY pIHkaW NAMJOQ
TJQrMIQaj CBtCWA YwPis oBCUKHx
</text>
    <confidentialityCode code="2027646830"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <observation classCode="OBS" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.38"/>
    <id root="MDHT" extension="713774637"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.15.3.8"/>
    <id root="MDHT" extension="995225078"/>
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">

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        <templateId root="2.16.840.1.113883.10.20.15.3.1"/>
        <code code="11778-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.78"/>
    <id root="MDHT" extension="1337318750"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <languageCode code="Code forlanguageCode"/>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
    <id root="MDHT" extension="1792165591"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </observation>
</entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.4"/>
    <id root="MDHT" extension="415475406"/>
    <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Vital Signs"/>
    <title>Vital Signs</title>
    <text>PPsoqoFR crAHS rQGCKDkh RFXtV ikLSQj HiLzF XipfEggp brQaNET
eSzVU dRoTsRV dnCFZA HvHAMvC GIUHOUSE tkgoX fSVDJVzd nALLU lpmEw njdYL
PVtAEBSac noxqdL WOpTiileZ
FviUIihXw hQkbFW tdASrS zRZxR EueXfkTi eUriJPr OQZyFu khRIMaS FHxgd
hqKWWGrh iVYLnV OVWHdas BHfOrBI FEvfwoBGp OIHArFo NzvSb bRHriSiqq ITyoQUUF
GDDeERXMB ZCvelHQ QRdNPbWau tOhzRS DkrGUTcW UkaOzKjCw
OoJHk jTszLcRYO DNMFrr gDWPKKjo hfjohxZ AqMfWNefv xZeJPixs qczYY WvumADUQw
XTJyS MheJhyCh wajNDdS RoEJPB xBUwZDWDm fhabCH UgdkQ RLRRY zkddqvNuY
LIEweCCJ QETcMTUS XcnoIl tjNlenhi KMsef mXtTNTKNw UNqXg bmMoOJ EkZrN NorGf
JGklAYb EGyaYI vYBiUayfM zJHsXE WjLOkOfW keVhHai jingoYyVf klVvf
</text>
    <confidentialityCode code="1297451734"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
    <id root="MDHT" extension="1710529357"/>
    <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
    <statusCode code="completed"/>
    <effectiveTime>

```



```

        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
          <code codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
          <statusCode code="completed"/>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

```

Diagnostic Imaging Report

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.5]

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.

Diagnostic Imaging Report Header Constraints

Diagnostic Imaging Report Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8404, CONF:10042) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.5"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:14833), which **SHALL** be selected from ValueSet DIRDocumentTypeCodes 2.16.840.1.113883.11.20.9.32 **DYNAMIC** (CONF:14834)

Given that DIR documents may be transformed from established collections of imaging reports already stored with their own type codes, there is no static set of Document Type codes. The set of LOINC codes listed in the DIR LOINC Document Type Codes table may be extended by additions to LOINC and supplemented by local codes as translations. The DIR document recommends use of a single document type code, 18748-4 "Diagnostic Imaging Report", with further specification provided by author or performer, setting, or specialty. Some of these codes in the DIR LOINC Document Type Codes table are pre-coordinated with either the imaging modality, body part examined, or specific imaging method such as the view. Use of these codes is not recommended, as this duplicates information potentially present with the header. 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. This table is drawn from LOINC Version 2.36, June 30, 2011, and consists of codes whose scale is DOC and that refer to reports for diagnostic imaging procedures.

4. **SHALL** contain exactly one [1..1] **id** (CONF:5363)
5. **SHALL** contain [0..0] **informant** such that it (CONF:8410)
 - a. Conforms to Informant12 from CDA
6. **MAY** contain [0..*] **informationRecipient** such that it (CONF: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.

- 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.
 - c. Conforms to Information Recipient from CDA
7. **MAY** contain zero or one [0..1] **participant** such that it (CONF:8414)
- a. **SHALL** contain exactly one [1..1] **associatedEntity** such that it (CONF:8415)
 - 1. **SHALL** contain exactly one [1..1] **associatedPerson** such that it (CONF:8415)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:9406)
8. **MAY** contain zero or one [0..1] **inFulfillmentOf** such that it

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 and 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. In both cases, inFulfillmentOf/order/id is mapped to the DICOM Accession Number in the imaging data.

9. **SHALL** contain exactly one [1..1] **documentationOf** such that it (CONF:8416)
- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8431)
 - 1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8430)
 - 2. **SHALL** contain exactly one [1..1] **code** (CONF:8419)

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.

 - 3. **SHOULD** contain zero or more [0..*] **id** (CONF:8418)
 - 4. **SHOULD** contain zero or more [0..*] **performer**, where its type is **Physician Reading Study Performer** (CONF:8422)
10. **MAY** contain zero or one [0..1] **relatedDocument** such that it (CONF:8432)

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.

- a. The relatedDocument/id/@root attribute **SHALL** be a syntactically correct OID, and **SHALL NOT** be a UUID. (CONF:10030)

11. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:8434)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8449)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8437)

2. **SHALL** contain at least one [1..*] **id** (CONF:8435)

In the case of transformed DICOM SR documents, an appropriate null flavor MAY be used if the id is unavailable.

3. **SHOULD** contain zero or one [0..1] **encounterParticipant**, where its type is [Physician of Record Participant](#) (CONF:8448)

4. **MAY** contain zero or one [0..1] **responsibleParty** such that it (CONF:8438)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:9407)

OR SHOULD contain zero or one [0..1] **assignedPerson** OR contain zero or one [0..1] **representedOrganization** (CONF:8439)

5. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10133, CONF:10127)

6. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10133, CONF:10128)

7. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10133, CONF:10129)

8. The content of **effectiveTime** conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10133, CONF:10130)

12. **SHALL** contain [1..1] **component** such that it (CONF:9484)

a. Conforms to [Findings Section](#) (templateId: 2.16.840.1.113883.10.20.6.1.2)

13. **SHOULD** contain [0..1] **component** such that it (CONF:15141)

a. Conforms to [DICOM Object Catalog Section](#) (templateId: 2.16.840.1.113883.10.20.6.1.1)

14. This code **SHOULD** contain zero or one [0..1] **@code="18748-4"** Diagnostic Imaging Report (CodeSystem: LOINC2.16.840.1.113883.6.1) (CONF:8409)

15. 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

16. With the exception of the DICOM Object Catalog (templateId 2.16.840.1.113883.10.20.6.1.1), all sections within the Diagnostic Imaging Report content **SHOULD** contain a title element (CONF:9409)

17. The section/code **SHOULD** be selected from LOINC or DICOM for sections not listed in the DIR Section Type Codes table (CONF:9410)

18. All sections defined in the DIR Section Type Codes table **SHALL** be top-level sections (CONF:9411)

19. A section element **SHALL** have a code element which **SHALL** contain a LOINC code or DCM code for sections which have no LOINC equivalent. This only applies to sections described in the DIR Section Type Codes table (CONF:9412)

20. Apart from the DICOM Object Catalog (templateId 2.16.840.1.113883.10.20.6.1.1), all other instances of section **SHALL** contain at least one text element or one or more component elements (CONF:9413)

21. All text or component elements **SHALL** contain content. text elements **SHALL** contain PCDATA or child elements, and component elements **SHALL** contain child elements (CONF:9414)

22. 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

23. If clinical statements are present, the section/text **SHALL** represent faithfully all such statements and **MAY** contain additional text

1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)

2. **SHALL** contain exactly one [1..1] **realmCode/@code="US"** (CONF:16791)

3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:14833), which **SHALL** be selected from ValueSet `DIRDocumentTypeCodes 2.16.840.1.113883.11.20.9.32 DYNAMIC` (CONF:14834)

Given that DIR documents may be transformed from established collections of imaging reports already stored with their own type codes, there is no static set of Document Type codes. The set of LOINC codes listed in the DIR LOINC Document Type Codes table may be extended by additions to LOINC and supplemented by local codes as translations. The DIR document recommends use of a single document type code, 18748-4 "Diagnostic Imaging Report", with further specification provided by author or performer, setting, or specialty. Some of these codes in the DIR LOINC Document Type Codes table are pre-coordinated with either the imaging modality, body part examined, or specific imaging method such as the view. Use of these codes is not recommended, as this duplicates information potentially present with the header. 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. This table is drawn from LOINC Version 2.36, June 30, 2011, and consists of codes whose scale is DOC and that refer to reports for diagnostic imaging procedures.

6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the `ClinicalDocument.effectiveTime` is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet `HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 STATIC 2010-04-21` (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet `Language 2.16.840.1.113883.1.11.11526 DYNAMIC` (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)
12. contain exactly one [1..1] **component**, where its type is `Component2`
 - a. Conforms to `Component2`

13. SHALL contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. SHALL contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 DYNAMIC (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 DYNAMIC (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 DYNAMIC (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 DYNAMIC (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 DYNAMIC (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Ordering List Number 5** to one [0..1] **code** (CONF:5326)
 - Ordering List Number 5** to one or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Ordering List Number 5** to one or more [0..*] **telecom**
 - Ordering List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Ordering List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Ordering List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Ordering List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Ordering List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Ordering List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Ordering List Number 6** **SHOULD** 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:5402, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Ordering List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Ordering List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Ordering List Number 5** to one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Ordering List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] **raceCode** (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where **id/@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
 - 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/**@code="S"** (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/**@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] **assignedEntity** OR exactly one [1..1] **relatedEntity** (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/**@typeCode** is IND, associatedEntity/**@classCode** **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderListNumber **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderListNumber **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderListNumber **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **MAY** contain zero or one [0..1] **participant** such that it (CONF:8414)

a. **SHALL** contain exactly one [1..1] **associatedEntity** such that it (CONF:8415)

1. **SHALL** contain exactly one [1..1] **associatedPerson** such that it (CONF:8415)

a. **SHALL** contain exactly one [1..1] **name** (CONF:9406)

27. **MAY** contain zero or one [0..1] **inFulfillmentOf** such that it

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 and 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. In both cases, inFulfillmentOf/order/id is mapped to the DICOM Accession Number in the imaging data.

28. SHALL contain exactly one [1..1] **documentationOf** such that it (CONF:8416)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8431)

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8430)
2. **SHALL** contain exactly one [1..1] **code** (CONF:8419)

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.

3. **SHOULD** contain zero or more [0..*] **id** (CONF:8418)
4. **SHOULD** contain zero or more [0..*] **performer**, where its type is [Physician Reading Study Performer](#) (CONF:8422)

29. MAY contain zero or one [0..1] **relatedDocument** such that it (CONF:8432)

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.

- a. The relatedDocument/id/@root attribute **SHALL** be a syntactically correct OID, and **SHALL NOT** be a UUID. (CONF:10030)

30. MAY contain zero or one [0..1] **componentOf** such that it (CONF:8434)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8449)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8437)
2. **SHALL** contain at least one [1..*] **id** (CONF:8435)

In the case of transformed DICOM SR documents, an appropriate null flavor MAY be used if the id is unavailable.

3. **SHOULD** contain zero or one [0..1] **encounterParticipant**, where its type is [Physician of Record Participant](#) (CONF:8448)
4. **MAY** contain zero or one [0..1] **responsibleParty** such that it (CONF:8438)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:9407)

OR contain zero or one [0..1] **assignedPerson** OR contain zero or one [0..1] **representedOrganization** (CONF:8439)

5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10133, CONF:10127)
6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10133, CONF:10128)
7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10133, CONF:10129)
8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10133, CONF:10130)

31. SHALL contain [1..1] **component** such that it (CONF:9484)

- a. Conforms to [Findings Section](#) (templateId: 2.16.840.1.113883.10.20.6.1.2)

32. SHOULD contain [0..1] **component** such that it (CONF:15141)

- a. Conforms to [DICOM Object Catalog Section](#) (templateId: 2.16.840.1.113883.10.20.6.1.1)

33. typeId SHALL contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:5250, R2.1=CONF:1198-5250)

34. typeId SHALL contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:5251, R2.1=CONF:1198-5251)

35. id SHALL be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)

36. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
37. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
38. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)
39. This code **SHOULD** contain zero or one [0..1] @code="18748-4" Diagnostic Imaging Report (CodeSystem: LOINC2.16.840.1.113883.6.1) (CONF:8409)
40. 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
41. With the exception of the DICOM Object Catalog (templateId 2.16.840.1.113883.10.20.6.1.1), all sections within the Diagnostic Imaging Report content **SHOULD** contain a title element (CONF:9409)
42. The section/code **SHOULD** be selected from LOINC or DICOM for sections not listed in the DIR Section Type Codes table (CONF:9410)
43. All sections defined in the DIR Section Type Codes table **SHALL** be top-level sections (CONF:9411)
44. A section element **SHALL** have a code element which **SHALL** contain a LOINC code or DCM code for sections which have no LOINC equivalent. This only applies to sections described in the DIR Section Type Codes table (CONF:9412)
45. Apart from the DICOM Object Catalog (templateId 2.16.840.1.113883.10.20.6.1.1), all other instances of section **SHALL** contain at least one text element or one or more component elements (CONF:9413)
46. All text or component elements **SHALL** contain content. text elements **SHALL** contain PCDATA or child elements, and component elements **SHALL** contain child elements (CONF:9414)
47. 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
48. If clinical statements are present, the section/text **SHALL** represent faithfully all such statements and **MAY** contain additional text

Diagnostic Imaging Report Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 infrastructure/
cda/CDA_SDTC.xsd">
  <realmCode code="US"/>
  <realmCode code="US"/>
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.5"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.5"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.5"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="689454543"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <title>org.openhealthtools.mdht.uml.cda.consol.impl. Diagnostic Imaging
Report Impl</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
codeSystemName="ConfidentialityCode"/>
  <languageCode code="Code forlanguageCode"/>
  <setId root="MDHT" extension="15b84649-c775-42c0-9bed-69ef602a1167"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
```

```

    <time/>
    <assignedAuthor/>
  </author>
  <informant/>
  <custodian/>
  <informationRecipient/>
  <participant>
    <associatedEntity>
      <associatedPerson/>
    </associatedEntity>
  </participant>
  <inFulfillmentOf>
    <order/>
  </inFulfillmentOf>
  <documentationOf>
    <serviceEvent classCode="ACT">
      <id root="MDHT" extension="14342623"/>
      <code code="240918843"/>
      <performer typeCode="PRF">
        <templateId root="2.16.840.1.113883.10.20.6.2.1"/>
      </performer>
    </serviceEvent>
  </documentationOf>
  <relatedDocument>
    <parentDocument/>
  </relatedDocument>
  <componentOf>
    <encompassingEncounter>
      <id root="MDHT" extension="1718851786"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <responsibleParty/>
      <encounterParticipant typeCode="ATND">
        <templateId root="2.16.840.1.113883.10.20.6.2.2"/>
      </encounterParticipant>
    </encompassingEncounter>
  </componentOf>
  <component>
    <structuredBody>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.6.1.2"/>
          <id root="MDHT" extension="1167942323"/>
          <code code="1424786738"/>
          <title>TEXT FOR TITLE</title>
          <text>WdlWmpZt kkVyscCl jZXqts cTOzoVI JmMUzi EUaJBsDrs RZjfpssHG
toQmoMX FPdeGH TDUAyzfo viHclX vxRip SRZnN EOkCxu dBlskpCKN LGBSxh
lIIgNZGUG uwNtrBr MMCVJVqW
</text>
          <confidentialityCode code="1071993563"/>
          <languageCode code="Code forlanguageCode"/>
        </section>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.6.1.1"/>
          <id root="MDHT" extension="462945733"/>
          <code code="121181" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM" displayName="Dicom Object Catalog"/>
          <title>Dicom Object Catalog</title>

```

```

<text>fAMKQFh rrkJaMH kqGggLxM qeLjKdeiB UEwGd vztKWHyf JRnZaeaJn
VhIiyB QHqhXK YWuwS zpQBnILEL uTzJxwf jUZcsN MaiabYocu cGDpUHT VZQBFZXz
VGrUY OgAJSTe qLsylv ERipv zvzrTlqc
NvKaRakq OVEXlAe FPvLU dSfvVZnc nwrjkMPk qLggSH kqCKirXhk dGTgLdg tGxUXWGhE
GAXdmHLu dIIKElD LddABpf OLhxgrP QADHZItY oKKBQxNm
</text>
<confidentialityCode code="421757026"/>
<languageCode code="Code forlanguageCode"/>
<entry>
  <act classCode="ACT" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
    <id root="MDHT" extension="655085145"/>
    <code code="113014" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
    <entryRelationship>
      <act classCode="ACT" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.63"/>
        <code code="113015" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM"/>
      </act>
    </entryRelationship>
  </act>
</entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

```

Header Constraints

Body Constraints

Example

History And Physical Note

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.3]

A History and Physical 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, typically supplied by the patient or their caregiver, about 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 History and Physical Note.

History And Physical Note Header Constraints

History And Physical Note Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8283) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.3"
 2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:17185), which **SHALL** be selected from ValueSet HPDocumentType 3. 2.16.840.1.113883.1.11.20.22 **DYNAMIC** (CONF:17186)
 4. **MAY** contain [0..*] **inFulfillmentOf** such that it (CONF:8336, CONF:8337)
 - a. An inFulfillmentOf element records 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 this HP Note may be in partial fulfillment of that referral.
 - b. Conforms to In Fulfillment Of from CDA
 5. **SHALL** contain exactly one [1..1] **componentOf** such that it (CONF:8338)
 - a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8339)
 1. **SHALL** contain exactly one [1..1] **effectiveTime** (ii., CONF:8341)
 2. **SHALL** contain exactly one [1..1] **id** (i., CONF:8340)
 3. **MAY** contain zero or one [0..1] **location**, where its type is CDA Location (CONF:8344)
 4. **MAY** contain zero or one [0..1] **responsibleParty** such that it (iv., CONF:8345)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8348)
 - b. The responsibleParty element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8348)
 5. **MAY** contain zero or one [0..1] **encounterParticipant** such that it (v., CONF:8342)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8343)
 - b. The encounterParticipant element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8343)
 6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10135, CONF:10127)
 7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10135, CONF:10128)
 8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10135, CONF:10129)
 9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10135, CONF:10130)
6. **SHALL** contain [1..1] **component** such that it (CONF:9602)
 - a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
7. **MAY** contain [0..1] **component** such that it (CONF:9605)
 - a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
8. **MAY** contain [0..1] **component** such that it (CONF:9607)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)

9. **MAY** contain [0..1] **component** such that it (CONF:9987)
 - a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
10. **MAY** contain [0..1] **component** such that it (CONF:9611)
 - a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
11. **MAY** contain [0..1] **component** such that it (CONF:9613)
 - a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)
12. **SHALL** contain [1..1] **component** such that it (CONF:9615)
 - a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
13. **SHALL** contain [1..1] **component** such that it (CONF:9617)
 - a. Conforms to [General Status Section](#) (templateId: 2.16.840.1.113883.10.20.2.5)
14. **SHALL** contain [1..1] **component** such that it (CONF:9619)
 - a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)
15. **SHALL** contain [1..1] **component** such that it (CONF:9623)
 - a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
16. **SHALL** contain [1..1] **component** such that it (CONF:9625)
 - a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
17. **MAY** contain [0..1] **component** such that it (CONF:9627)
 - a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)
18. **SHALL** contain [1..1] **component** such that it (CONF:9629)
 - a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)
19. **SHALL** contain [1..1] **component** such that it (CONF:9631)
 - a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
20. **SHALL** contain [1..1] **component** such that it (CONF:9633)
 - a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
21. **SHOULD** contain [0..1] **component** such that it (CONF:9621)
 - a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)
22. **MAY** contain [0..1] **component** such that it (CONF:9637)
 - a. Conforms to [Immunizations Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.2)
23. **MAY** contain [0..1] **component** such that it (CONF:9639)
 - a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)
24. **MAY** contain [0..1] **component** such that it (CONF:9641)
 - a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)
25. **SHALL** contain [1..1] **component** such that it (CONF:9635)
 - a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)
26. **MAY** contain [0..1] **component** such that it (CONF:16807)
 - a. Conforms to [Instructions Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.45)
27. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:9986)
28. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present
29. **SHALL** include a Chief Complaint and Reason for Visit Section, Chief Complaint Section, or a Reason for Visit Section (CONF:9642)

30. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10057)

1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:17185), which **SHALL** be selected from ValueSet HPDocumentType 3. 2.16.840.1.113883.1.11.20.22 **DYNAMIC** (CONF:17186)
6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)
12. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

13. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

- a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sdtcRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - OrderList Number 5** to or one [0..1] **code** (CONF:5326)
 - OrderList Number 5** to or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - OrderList Number 5** to or more [0..*] **telecom**
 - OrderList Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - OrderList Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - OrderList Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - OrderList Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - OrderList Number 5** to one [1..1] **place** such that it (CONF:5396)
 - OrderList Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - OrderList Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - OrderList Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - OrderList Number 6** **SHOULD** 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:5402, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - OrderList Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - OrderList Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - OrderList Number 5** to or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - OrderList Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
 - 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderedList Number 5. **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderList Number 5. **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderList Number 5. **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHALL** contain exactly one [1..1] **componentOf** such that it (CONF:8338)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:8339)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (ii., CONF:8341)

2. **SHALL** contain exactly one [1..1] **id** (i., CONF:8340)

3. **MAY** contain zero or one [0..1] **location**, where its type is CDA Location (CONF:8344)

4. **MAY** contain zero or one [0..1] **responsibleParty** such that it (iv., CONF:8345)

a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8348)

b. The responsibleParty element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8348)

5. **MAY** contain zero or one [0..1] **encounterParticipant** such that it (v., CONF:8342)

a. **SHALL** contain exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity (CONF:8343)

b. The encounterParticipant element, if present, **SHALL** contain an assignedEntity element which **SHALL** contain an assignedPerson element, a representedOrganization element, or both. (CONF:8343)

6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10135, CONF:10127)

7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10135, CONF:10128)

8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10135, CONF:10129)

9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10135, CONF:10130)

27. **SHALL** contain [1..1] **component** such that it (CONF:9602)
- a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
28. **MAY** contain [0..1] **component** such that it (CONF:9605)
- a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
29. **MAY** contain [0..1] **component** such that it (CONF:9607)
- a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
30. **MAY** contain [0..1] **component** such that it (CONF:9987)
- a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
31. **MAY** contain [0..1] **component** such that it (CONF:9611)
- a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
32. **MAY** contain [0..1] **component** such that it (CONF:9613)
- a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)
33. **SHALL** contain [1..1] **component** such that it (CONF:9615)
- a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
34. **SHALL** contain [1..1] **component** such that it (CONF:9617)
- a. Conforms to [General Status Section](#) (templateId: 2.16.840.1.113883.10.20.2.5)
35. **SHALL** contain [1..1] **component** such that it (CONF:9619)
- a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)
36. **SHALL** contain [1..1] **component** such that it (CONF:9623)
- a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
37. **SHALL** contain [1..1] **component** such that it (CONF:9625)
- a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
38. **MAY** contain [0..1] **component** such that it (CONF:9627)
- a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)
39. **SHALL** contain [1..1] **component** such that it (CONF:9629)
- a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)
40. **SHALL** contain [1..1] **component** such that it (CONF:9631)
- a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
41. **SHALL** contain [1..1] **component** such that it (CONF:9633)
- a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
42. **SHOULD** contain [0..1] **component** such that it (CONF:9621)
- a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)
43. **MAY** contain [0..1] **component** such that it (CONF:9637)
- a. Conforms to [Immunizations Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.2)
44. **MAY** contain [0..1] **component** such that it (CONF:9639)
- a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)
45. **MAY** contain [0..1] **component** such that it (CONF:9641)
- a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)
46. **SHALL** contain [1..1] **component** such that it (CONF:9635)
- a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)

47. **MAY** contain [0..1] **component** such that it (CONF:16807)
- a. Conforms to [Instructions Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.45)
48. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250, R2.1=CONF:1198-5250)
49. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251, R2.1=CONF:1198-5251)
50. id **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
51. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
52. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
53. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)
54. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:9986)
55. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present
56. **SHALL** include a Chief Complaint and Reason for Visit Section, Chief Complaint Section, or a Reason for Visit Section (CONF:9642)
57. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10057)

History And Physical Note Example

```
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avhTtnEq agpUqCa BRxnvo jzWbRFLP eYXLMr BUTHN OIwaiSzRI ixscY pKLGIOh
xjpax pEbYryYyt drkAl AuQxMxOu rQvGRvO mFGkC YJOLzUwnl mzTxWa qrOWqysEq
KGhtOUsR EsORd NsHhnfgt MdUyWa twngVnC kwOJqjkX KQSQEn VGXiQqBN JinBHL
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KvNbARv umVTrCmpH VJMiJ FWnQRyv nVgPwE gfgaEO aqmjXUs ajNYKPKEp uRMVfzGXf
eNzszSq bmHdam HxbCvyT FFllThPs TkkuI bvsFPU NsrMAOMv DZSLS MPeZEtYpb
EPyGTSq DPXWt PzvXVEi gwIYmyYdk XUByxrF HqratEu QFqshR IWvoN qLRbQTT
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boFqgi kLUjC ocGYXVbgN gihegeu egRUHVbE WlUukrtF onpZRTY BiciEwQ cMUAUmYKA
iiJty IjduRm JBAzrZa ayczmC lOxtVtVY lDSYx NPLUr rIMUwL BkLmOny mqnPiGAeh
TIayGg FGutXUy EsxjGDW sejrtABL CjJZW lqvevpPLG pvgBwDXO QAUEwN Dleopyjn
gPJTkGK cpkoLzoLw RfhYhvZ SHQRK rqpMWpz EOQsM JgVrgO rwNOE uYkZHU MZBFT
VIttD ipYrSKcP vSjzD SVThWGWwH VCaCWS SmXsLFP
EDzoHPio WSxcwkkgs YWoYxLUD shkUIY BtKkqeGYM JxMbF cKEtgz mtPCkqZ pCFnpSik
JlSSa CytaJ fgPmiEd tQraok rKftGe MYLzijPOD qGmyri oPmdCEodM egCpsrQ
qWrTrWsUm GDPvUAbL lbsVJBYw IZAYghxRj RMWygD uhNkB FdoAGK mOfCxrd ETOimBZ
eaavqFXh TPpTGhhOw lyjndVdn hqfLNA OHTJrIgHa dJkaQRQ UgtdD wOXtbzQOp HGoMy
oruklEL PhbGTt slsYPeJqy lqQAfv KJXskh nVLxbrll PwDVO CZcLPCAjH HXPUMzg
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codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
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upQGhJul dLbFG woBEP FBmKQAQy cVGroTD aIquEDKZ xOSco BpNaU iREnrT AVGkUuk

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FgcYnftd TXSIPxEx FORDgE EokbXzpt GTspMyiKy FNLmoVGf NGisyQTKV RGxFWeTe
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UtiYObfvK rwvEh ogLwz iqXBALzy kbZXGJ ZubhppZ cLYdUcQ tgAJsQ weKjnNeQ
ZAxkWgQ ScsSEQq qoREegprQ jBJtDqWhg tdeBmq jjBxkmQ PMLnOGOA SDJQu PovSiLG
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ltYKHVgnn XNQMxSrr TJdoQ wPoRSSX QFjKNKtf ZAKOc MkuRMhe myHjsoPif pKjVTm
cCrssny FFvpwGXtX xkFih SDeIZHQ jtEBc gkORpOdX grYoi kXEhqFi aOlyRbfqy
EunUb wiaAIrdM jKoZGRlj XZOfzkQP kcaYwnjA wOpiaC UmhTMI GCrGF RvMWYQX
KjRRrGDc MeKrm OOPiPHS naDSzfxvA wRsFqFsX
ZQNlh PmbyInQ ocGFRQtK XxoWXUk sMAftUnl rQkvnx BZCXhz xBoAKAcay mRwkX
YbPQd yUczTtq YVYyrxe MOhqlnC ubyYWkKN GRICHshw EnefzFe qFLxKR EJFVauina
EEuBFazcC euLWwJsG TnGcGJ MWafJf rKOztNj oqeyzvu VgdHyK mTawE nAloJtRB
ULRLvbJ PuGaRtIGk BGyao CtMncpv tLJIB sWBAVhZGp MkTBEH jILnzh tGMTPJuux
CdaVCyoh KWwraIeW XWOxMzod GBfhZlShM cbmHGgplw ABcjYfi hfdrUD nQAXbw
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kGXpabF GKDhaAh seugTy jasBmVuFD EwZlTtTKl yKVGQpY kXxoSDfQC lhzvH PvVdES
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QuMlha uBxppeC gNpwLlxNO tkeKut XLqvRtgsV HidudaZRW URPzVnJgK XQuvs
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jzhtjqQUK UjjpFwCLl aQMzqiWxQ RSZwQOpQ iIYhphiEX yqwRtbRDl SagNxCbP
QvMsWhGj divYwZiLW UchalXU UnXvWN OUOIQsVB
egocW TPAzoNas CNnVJVH MseHcRc OOOjk mQYJgNujr JrhwXvMP ZavZsBo DnyIgAbW
vOHpu YfBKcvwqz SFKpSg kWiJIKg MsKcfAAZU zgXSxL lGnpBy MdBVEbzd cUiBE
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HdJHPx MrMlDb cWLSp SLndyvsKk HUnCvYJW gyXTb GfODTi
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    <text>QBvSDZDi GpoTeVxS WZifsl CKCYVw inuyfjMx KhRMENkg FKvXWNU
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SdlYrplG QqXLqkPV kWMuJdRpt fdOzWvKtW aLKkzPJLQ ClXeR SMuzEP jqXzRZha
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dNAdc olxKAtvOW JAtWYcEYi kosGEdZMo SKKoKbQ rEnGum xGzrqV ODIoikN dMKfkYx
BYicGzrGp nQwzKWi WBNhUuJ plukuQabk UTarux mmHGKoi yagjhFF
MuqEV wdBQEPDIQ TRgOPBi TVZyuM MUtHL PrJYIJfRd jgwxHCuSG xJXRMYSv zKBlyZL
nPKsPk DSwrW GMYDscD fhmig AaZyFiBe IPRAIzxw DppioE hWyNXmIWN oPCbcR MxcwmN
BIjNFdZMK KHYCT HTcWvD zHQvAeK pGtlQf pGYKmM esRlFV unjYobNhi sQJaVownb
EPxgllwCk yzQJgZGR FZGZrY CPZGDU HIZBu BqDmlha wYSAiLkQt ViXliHe VTIQmu
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bwOdCFZx IEhvqGb hDcop sFbxk LltYHp mDyivw OjVYdz YZBqyUuM YWpegQ eejvYwyt
fIiEFjYTl KHBdTP pdWVa hwvdNpg JnSDjLPfU VmkDSWJdp YYCjERI xILCEbe FHSdM
pxpQP FgNPl FDQvwMyJh xVtkIYF TsjsVY sarCqSm dtIJln LmeoW iPMQGJt bFKGbp
dwwBxtj oiTyjxuv itjqFx UhVTS JxVip islbpM lIgmS zYGIDzpFV
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YXhWznk
HagrFw YXfFZd KJgCaCoy zHJwy sRGud iAeSwkR smYDI LHbEaJQ eXSNdoFL bkOoQbuk
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RLWSUmxD LTPjq hkPcMu SPbJTlQ JvcBNxFWp VtKagkELi bYdXxWR xaqOply WwQMa
iNtPqGjos pazQkSXs ztebuBeS neFInrCm OiUJuiR aeFQg nLangMG PqGxE hZQNGpi
vTauxj tojgiSEo MpNGQb gAtvfVR LMbCcLAWP ZamzzJ aXwDYFLV GcjxcNR ipqQS
LNdiHFZH FzXnjYuM VzjDs MHRXF MCUsZ IDVglGqY rzwEsiFuf BKuVORlA uZkygemq
HnVLIyy sXCVx KwmvraQ assuRO vlboeR MwLXDzCld mQZZTta RgoHenK BDqIl qlFJY
aRiliNITy oVrPwhP zSMMAzpwO hXRaT OEEWoWF fNkdAAW FMEObTsoU agPyq
LlaCtqCc mEAsG rPMxRfa tPpdvuL fMYPa zmOefbF RKwDVktZ EmnoLVICe iSKDxRXp
hRVcx BjxNHFBW BLqwKXhIB GbMWcBV WCmbW ZwccJXGJl LTGuC qZBzveZg aTvXQKb
JGUPMKp wgPWWwhywq LFsCRaC JHFjOZDp qbMdCps ETBHA vKEXIpaIg goSDw YczEK
SBHHJzpj IHhbdwh QWxuArl GUyjiTr
xuaUEygs rUcmpFJ XCsnPy nUumDOCVj bCVzAl jHCDUn yPgol aWwcq cOKGgR IydIuxaG
eStPusAI OXpyfJx VqEfrSur pTGRFe ehkYYlvAJ DlarDor UDOBw DAGDiUGw TTrGWWkDf
iRwTQqqHx BBqPX jcrUsM tvSSsN YcIBBnMt XERYHlK YSfkNZmU Ekdxww kNKTYmxgu

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ymlBGxC1 FlEaoJzud IWMtVX xcVXFRBw diPNk CZfDdkl UxbXBEL tiZucK eINQAuO
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AIPdhAspW eudAPN uHODlvbCn JwuJQH
jvzXsnhX rjOSaeI shYuUcO Fiwfg ChZpAQZtd AlnsPcMq FWUPrWEur bzcSfJR PBsnAVy
VAmYm RpFbfJ egsQlqv eKRYOh UjCZuZUr tBtgSzBBA rjzNp CuRLbK EXxKYPzg LaSjW
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UWjzZ hLPvwzeqi MNrccP IhHQZNxl ObozXjYHk TrktdYDen vdXHgzB dnVGzP xkCzab
qvRaYcezW vfBEyP uQXtUKhK VuLaVQJup cyWIEsY ZyQWgf
phIlBmLxL WUypXsb fUzTpHHY xXHILJN PlwFYu zaLHVOqB EXCIyIuHf YvGduSlAw
rYpJuxcLK GNoxk wdYyt dObbOmB XWLtKivU dPAjPEWW hsfcoNuJA jQCptlFo MEOzF
AQWZnbyI elRJKb mMjdZLHhf ENzvc aIZxic qHBiWBVT dMMvsbse mwXBqc MVNsefh
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<text>hLfIjG vWStYZFJv lCnTvnOE VyZpD swXvAMZ mANNuA gAEbDwMi
uFWGoyzp EgZDi ATlrvpX XuGHdkQ QewgGp HkIyNsUUw EakFVVF JeCGfp BtfdM
WHInyUYE cjftrwVa eIhoC wfBakjvVo SGnbvH FwCDb YwHafW PuBkqarM XtipQtk
TZEyclRH SRLSTTG xIXiG eBrYVb GwNRe GCKjyfgg WbknNvF auGkxURae oBWrRA
ZgyyRHGGd sWGedSju nmPZRiEY pphNO lLgitZL tKRzaEJNY
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eXWtA WYlyPENDw xQvXkMbHL POxUPr UOWovt gGUcFY yOkCNd TSSSLYFl GGtss
KTWkPpyq HnxSMYRI DhxVX JDYQr lvrELoR VBMIN VvgoMeUPk eQHmTGDUD wBkcBRKt
SCpIqov RGUEdVRh
jhdZRM QQuXyglAI PseFIqU WlpMDkM NFeisdO qqkLIXql wypdTCV iDtGpS fdpxkHskk
DKRPBIji OWMrc Tgaig hWlqw XxnCf IdeOv hylekC aspiBw MSdkvilnQ aiJdfFt
IPgugFOYO SCVgUaV AGnFxGJY zVRfeoC aYFkfTkJd JSvEBDL SKEeJoVqO gUUDqmqLz
VUdbDYSQ bDTzBF aAsOBUOA HPLhSsWA vACCO fGwvdz RcbUxPuB UHXKvb yRiQlpe
wfDXS yGBFUOC wmeLfMB RPYhrPY ynnSGhtU llByF
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codeSystemName="LOINC" displayName="Social history"/>
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LFAzR kFBZB inBpzQ gFyqu LTgOIBUkB NsTqTNNzf wfytcZz aRvFlKrk aXzPcQC
bmFzx ssLKj VZoJKj yRbukFgP PZLBkdHYf LjStcQvwn hWqpJO HtHuL XkOEzG RLwCTM
eUYWyxT VzYrQHU mXWZI VpsRgjfiV esuzFyj GUqlywaAL ovGAPXeV TNtfa YxJzxyqQ
QRlxeYdU jOebppHir kERSdRHe PavJGtdT DriKzJxh piFvu SGqelajBF HahcGFJs
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codeSystemName="LOINC" displayName="HISTORY OF PRESENT ILLNESS"/>
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    <text>nNLVAL czlkv OnRNJO IDmBUHd UVcOxw CGbuj AoreI HUQGUE NOqAoM
wBtmv PSRZiWYd OLOfBv wqGESAVOe GnLNcxFVY IixRSckkP JewYzZlp PlpidL VFqeBr
DCGvtAzY OPlJtMP nRSClQat ZwQNmnIf MecgVg DsuUAp HINyFOqF GXVSQbc LgSFTZV
LmAdKwTr EAxyOg
MdQpFrlB jwCzry zMgsFPzUT THGcbwSVh TOrdRP WOGod BnWdkwJ jSqlg ZKkVYgcU
VIajRio VcUumkD DRfcgKEx Ilwmz aZhHbF xTiWGOd
bUQZS hIQMAFhV pyiixc atKNLsOaP qvwWtNN OaghAMzat zZLCMvJw sAoKBHGf
VibBwXHhT IxCOWb zuxLR vTVRYA UsOZJUi OoFwiugw maaFCifj RRMUD jUzcovMJ
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gruZQFYN JksuRojiz WNYNeM VGihJE fvWxy rUqdTu QxckgGCa ElWfo efCRBwE
qnwzVuiPh jlkqxBLIa NJKCGe Bkusbbw SmfmWQtQ YyseJn VOEagf vnoSqiMIA kRtBXzj
GYoMe
AEQXTN ePwgfi KYodyeE zuxbSA ZcocBn UYZqkhn WqYFYv teZiq bWQuBA dVaAS
EOYVyk rgkBnSmCP YpkXdq SlJJC LCBovXg RwqhOXq uYxQQ QCCSkTn nNzXmMaDT
wjnZsyh HcnzQ YtAxXn PCQGSFj GzRKsneDQ uTWLO UZCZe hPlEav lIIZHWir jvgcxfh
fwxUX yPWSeMXF DAZcVS GfdWhd tzHrDhiK ieEBtTp LCideHb fSMke nhCbAxWO
EUsvguc ZVbMQdm IoieIduuk gcOTLpu jRdGTNc JfDuHA KrNTAfjdo
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codeSystemName="NCI Thesaurus"/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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</supply>
</entryRelationship>
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codeSystemName="ActReason"/>
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    <id root="MDHT" extension="1442452188"/>
    <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Problem List"/>
    <title>Problem List</title>
    <text>pVJQX gyoZuk GaJfqNM hcRypJch aocKxiTVQ ZKHwG TTHJjof
bCm1Nufq NKHFME IkeZiJ gBMDP EHxIJGsn ekYOv jKVuvCkC mFraewX dMmiO
zlLcTuRM SZGkxHzY BxtcghRmS nSTCXESs HRauSF xtSYfGl rzvPOgSD AfDIjmDw
PubLrFWi iRvkBdeQ mktNYO xgSuFvOjg DIyGBNyq OaOQLV eVKYYiBAU LZcLz
AfzVOBkcd qVDtkQxKt fNhRi jzhUdZyyq cPnUNLf vehVMZFdM liLJGeAz dJAU QjwjJbz
tsuITzhqr XyReHGsf JZxcOIhk LPTavr iVlYxGovJ Dhqmu vgmduU uTjOAFJ CutONCg
edUatfeDG mldfUK OedeIXse EvtrSj LThTyn CbrpLs DiYbTd jkAEft zSqGU
wandrdNSs jMdjbgLaw NKhiZZTT DMxHiNpGM RpVGHfN AugMivxQ tjPatsVyQ UrDQbB
CDUJZYVa gFmnizVxo VerxIgloJ QhOJIw wfgWo HapWQ CfcitQ VmlsVZ lPXsbUq
IrVAUNN iUigdTL TmlxYAbon zYTreRA Ufbvub qkPzqlQxd RjDDU GEGKzZW QGknn
GdVyCnu WipnqpQ bcWOBWz EbuVhl SNQwZoE PFEuNUnzX
qbgqip PHxfe BAXKM tHuPY HErWA WFzTiE FYopHwwzo HAFrzM TzEHQr czELVPOU
hKbhIpO PqupLJn MWqsvxjz OCiHUK VeZMa yvyGk
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    <languageCode code="Code forlanguageCode"/>
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codeSystemName="HL7ActClass" displayName="Concern"/>
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            <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
            <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            <statusCode code="completed"/>
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    </entry>
  </section>
</component>

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    </entry>
  </section>
</component>
<component>
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    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of Procedures"/>
    <title>History of Procedures</title>
    <text>AranEQ FwbvKfFQ oEXtUNOE FCbzt OoZVtDWQ lJpOa QsIRFYFsJ
AXAygYx DqXIls NrvwS mTRHAnYlh oOcxak fEsOtNb OYWDg
</text>
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    <languageCode code="Code forlanguageCode"/>
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        <code code="455502346"/>
        <text>Text Value</text>
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codeSystemName="ActPriority"/>
        <languageCode code="Code forlanguageCode"/>
        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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        <performer/>
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            <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystemName="NCI Thesaurus"/>
            <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
          </substanceAdministration>
        </entryRelationship>
        <entryRelationship>
          <act classCode="ACT" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
            <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            <statusCode code="completed"/>
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        </entryRelationship>
      </procedure>
    </entry>
  </section>
</component>

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    <entry>
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          <high value="2019"/>
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codeSystemName="ActPriority"/>
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        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <performer/>
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            <code codeSystem="2.16.840.1.113883.6.96"
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            <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
            <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            <statusCode code="completed"/>
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        </entryRelationship>
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codeSystemName="NCI Thesaurus"/>
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codeSystemName="SNOMEDCT"/>
            <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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      </observation>
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        <id root="MDHT" extension="1416262494"/>
        <code code="984907689"/>
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        </effectiveTime>
        <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
        <languageCode code="Code forlanguageCode"/>
        <performer/>
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codeSystemName="SNOMEDCT"/>
          <statusCode code="completed"/>
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      </entryRelationship>
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        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
      <entryRelationship>
        <substanceAdministration classCode="SBADM">
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
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codeSystemName="NCI Thesaurus"/>
          <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
        </substanceAdministration>
      </entryRelationship>
    </act>
  </entry>
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</component>
<component>
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    <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Vital Signs"/>
    <title>Vital Signs</title>
    <text>fSBzMcMK GJMtnOq irjgQR zOCdGwxx YTFxpD awEMM bGNztG
RZiidLtaj QUoqBRE eYeVK WCLBodNa fbpnTkbv TPPytgZ ocUpEJk VljibkXML
zqzHvOHn rCJgxBwd TyXMkdqZb xneZV JHUoZpTYB mopeIs yHXxHFp OAGGHEYd JTRCuyga
zaGRBjoj HQbzwgFA dhMaNK VEUoj VjZxtz pEfvaB GDRKSP TtOmU axGTJx GkYkmiG
AhyiAZJHL JXvvVUIDn RNFweBr ihAwT PIycZH VxTgIJzN NXFtnL FnoxYev cIXsUstB
YtTMheqQZ wfKGZzMGo
FiJIhA GnvUHRU vYEeUS DfpPoJw xiBpURsi DXyUJ PyDUaJf KpuVLwaP XbtPVsGJA
glNffz TQmkXjxpA dttDVT JniMEPCp eNAiAETJ PpPhU SrHTLxB1 BUAvWIE UuaiDprZ
jempBVS xFicRja SSnfQfsmJ dpvtNbNd JylTjiMVI afBvKEzB dZAeBFLgG LWRNQ MURlT
MidvyI bIwXWGcvc ymYBbbl kcfjK MyzUtjm YeTwxT YePmR WsCHUxKux tyxPUqGH
tNeCmQ lARumlt erPBHBvBW OyzKGfCh CcIqoXnv HXPVqEaIF rpCAnBO rdRRtyY
HTESHRX klCharFI xxUCGSw lSrSUXWgG
AZDETen WmCcngcr qzetLVJ pnqdNwWbD smtiJx UzRDH ZETZsjKC PDBXD rbfMmRJ ulBdJ
UKYQcR EGHYm bvHuiqK NhoKtOXM qozWD kgWBt OyGTP WFnWafGD WsUcz UfdvsX
PByFfQ kZjhw UWvMM
</text>
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        <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
        <id root="MDHT" extension="1803973396"/>
        <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
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  </section>
</component>

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    <effectiveTime>
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      <high value="2019"/>
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        <code codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
        <statusCode code="completed"/>
      </observation>
    </component>
  </organizer>
</entry>
</section>
</component>
<component>
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    <templateId root="2.16.840.1.113883.10.20.22.2.45"/>
    <id root="MDHT" extension="186153449"/>
    <code code="69730-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Instructions"/>
    <title>Instructions</title>
    <text>TwsKEp JCiBl aDHYy iakNZVPm VErHclW wjaarmC LUsjp uLOlfUmlj
sHuEJZSd hpgNhjuog sHtHeG pWixhz JHVSI mISzXllH QoLXX hKMSFF AhLeInHpK
qcvLurp jJbUFQ tleehyNgy ItruW HXkHD cOrprkPq FoogaFJUG MtnTfbwds lkBOG
lNvNre mFLlI aKobL JrvcIHU zfdtq EUwQqK mnNAxHGoG RZqPM pAGIqqq TvLxB
lTXAJTM qZLaNVmC zJiAxKOC WoEuHHj detrgSD
zUVQXLF eNYdce PNeWPpB GhvTzz uwHRdYfBD ipeJY kRCNU DryVIsE AJIIFQn IoDis
AvhQeKB byaaSTONw WGfjm YyGQVYnt FieXYV mEUjNyqdE NLUmAJC FACAkP wroLv
GqCQZa pVdkMwL fbcWvBARq pweZr PYBqJUpX FrOSbRDr wTNaDBdeJ knjmgIbQa AhYFUO
PCOjr LWlsY GRWSd hPTvG kLgpF rKwrhJY JnZlBMD CVJXQuMZ oWnSBjWAl BldfrICG
QLtFIuK pxgYhfkCf HYLouNBK VPZTDN gRTxRp qijHDiu gESFV orgzdgC vXSAV
OkWGipyCr dLeydBm lfCXK XrxbqIRBb Cordyb SWfdUJQm XOBxZAROR VOjLR rnCqnqs
gryWnJp BgShC ZufOCvyEP qVyCnRdp eUBmkAd gDlvyNm ecOsXjV KYNRP IBkZve
OMNmNjrad aozBKM vDXOZHY guiPdv PEixuYu JNPlfzULh zgVXgpi PqjbDn qKthEY
GRbTdI
</text>
    <confidentialityCode code="532105989"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <act classCode="ACT" moodCode="INT">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1759355670"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </act>
</entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

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Operative Note

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.7]

The Operative Note Fluids section may be used to record fluids administered during the surgical procedure.

Operative Note Header Constraints

Operative Note Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8483, CONF:10048) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.7"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:17187), which **SHALL** be selected from ValueSet SurgicalOperationNoteDocumentTypeCode 2.16.840.1.113883.11.20.1.1 **DYNAMIC** (CONF:17188)
4. **SHALL** contain at least one [1..*] **documentationOf** such that it (CONF:8486)
 - a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8493)
 1. **SHALL** contain exactly one [1..1] **code** (i., CONF:8487)
 2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8494)
 3. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8489)

The performer represents 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 Nonphysician Providers (NPP) 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 orthopaedic 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.

- a. **SHALL** contain exactly one [1..1] **@typeCode**="PPRF" (CONF:8495)
- b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:10917)

OrderList SHALL contain exactly one [1..1] **code** (CONF:8490, CONF:8491), which **SHALL** be selected from ValueSet ProviderType 2.16.840.1.113883.3.88.12.3221.4 **DYNAMIC**

4. i. 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 Procedure 2.16.840.1.113883.3.88.12.80.28 DYNAMIC. (CONF:8487)
5. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:8488)
 6. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high. (CONF:10058)
 7. 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:10060)
 8. Any assistants **SHALL** be identified and **SHALL** be identified as secondary performers (SPRF)
 9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10136, CONF:10127)
 10. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10136, CONF:10128)
 11. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10136, CONF:10129)
 12. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10136, CONF:10130)
5. **SHALL** contain [1..1] **component** such that it (CONF:9883)
 - a. Conforms to [Anesthesia Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.25)
 6. **SHALL** contain [1..1] **component** such that it (CONF:9885)
 - a. Conforms to [Complications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.37)
 7. **SHALL** contain [1..1] **component** such that it (CONF:9913)
 - a. Conforms to [Postoperative Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.35)
 8. **SHALL** contain [1..1] **component** such that it (CONF:9888)
 - a. Conforms to [Preoperative Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.34)
 9. **SHALL** contain [1..1] **component** such that it (CONF:9890)
 - a. Conforms to [Procedure Estimated Blood Loss Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.9)
 10. **SHALL** contain [1..1] **component** such that it (CONF:9892)
 - a. Conforms to [Procedure Findings Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.28)
 11. **SHALL** contain [1..1] **component** such that it (CONF:9894)
 - a. Conforms to [Procedure Specimens Taken Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.31)
 12. **SHALL** contain [1..1] **component** such that it (CONF:9896)
 - a. Conforms to [Procedure Description Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.27)
 13. **MAY** contain [0..1] **component** such that it (CONF:9898)
 - a. Conforms to [Procedure Implants Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.40)
 14. **MAY** contain [0..1] **component** such that it (CONF:9900)
 - a. Conforms to [Operative Note Fluid Section](#) (templateId: 2.16.840.1.113883.10.20.7.12)
 15. **MAY** contain [0..1] **component** such that it (CONF:9902)
 - a. Conforms to [Operative Note Surgical Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.7.14)
 16. **MAY** contain [0..1] **component** such that it (CONF:9904)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
 17. **MAY** contain [0..1] **component** such that it (CONF:9906)
 - a. Conforms to [Planned Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.30)

18. **MAY** contain [0..1] **component** such that it (CONF:9908)

- a. Conforms to [Procedure Disposition Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.12)

19. **MAY** contain [0..1] **component** such that it (CONF:9910)

- a. Conforms to [Procedure Indications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.29)

20. **MAY** contain [0..1] **component** such that it (CONF:9912)

- a. Conforms to [Surgical Drains Section](#) (templateId: 2.16.840.1.113883.10.20.7.13)

1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)

2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)

3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)

4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)

5. **SHALL** contain exactly one [1..1] **code** (CONF:17187), which **SHALL** be selected from ValueSet [SurgicalOperationNoteDocumentTypeCode](#) 2.16.840.1.113883.11.20.1.1 **DYNAMIC** (CONF:17188)

6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet [HL7 BasicConfidentialityKind](#) 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)

9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [Language](#) 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)

10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)

11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)

12. contain exactly one [1..1] **component**, where its type is Component2

- a. Conforms to Component2

13. SHALL contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. SHALL contain exactly one [1..1] **patientRole** such that it (CONF:5268)

- 1. SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
- 2. SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
- 3. SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
- 4. SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
 - i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Order 5** **SHALL** contain zero or one [0..1] **code** (CONF:5326)
 - Order 6** **SHALL** contain zero or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Order 7** **SHALL** contain zero or more [0..*] **telecom**
 - Order 8** **SHALL** contain at most one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Order 1** **SHALL** contain at most one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Order 2** **SHALL** contain one [1..1] **name** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Order 3** **SHALL** contain one [1..1] **present**, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
 - j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Order 1** **SHALL** contain at most one [1..1] **place** such that it (CONF:5396)
 - Order 1** **SHALL** contain at most one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Order 2** **SHALL** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Order 3** **SHALL** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Order 4** **SHALL** contain one [1..1] **state**, which **SHALL** be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 **DYNAMIC** (CONF:5402, DSTU:812)
 - k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Order 1** **SHALL** contain at most one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Order 2** **SHALL** contain zero or one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Order 3** **SHALL** contain zero or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Order 4** **SHALL** contain zero or one [0..1] **preferenceInd** (CONF:5414)
 - l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
- a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
 - 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderListNumber 5. **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/

@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHALL** contain at least one [1..*] **documentationOf** such that it (CONF:8486)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:8493)

1. **SHALL** contain exactly one [1..1] **code** (i., CONF:8487)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8494)

3. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8489)

The performer represents 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 Nonphysician Providers (NPP) 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 orthopaedic 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.

a. **SHALL** contain exactly one [1..1] **@typeCode="PPRF"** (CONF:8495)

b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:10917)

OrderListNumber 5. **SHALL** contain exactly one [1..1] **code** (CONF:8490, CONF:8491), which **SHALL** be selected from ValueSet ProviderType 2.16.840.1.113883.3.88.12.3221.4 **DYNAMIC**

4. i. 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 Procedure 2.16.840.1.113883.3.88.12.80.28 DYNAMIC. (CONF:8487)
5. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:8488)
 6. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high. (CONF:10058)
 7. 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:10060)
 8. Any assistants **SHALL** be identified and **SHALL** be identified as secondary performers (SPRF)
 9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10136, CONF:10127)
 10. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10136, CONF:10128)
 11. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10136, CONF:10129)
 12. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10136, CONF:10130)
27. **SHALL** contain [1..1] **component** such that it (CONF:9883)
 - a. Conforms to [Anesthesia Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.25)
 28. **SHALL** contain [1..1] **component** such that it (CONF:9885)
 - a. Conforms to [Complications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.37)
 29. **SHALL** contain [1..1] **component** such that it (CONF:9913)
 - a. Conforms to [Postoperative Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.35)
 30. **SHALL** contain [1..1] **component** such that it (CONF:9888)
 - a. Conforms to [Preoperative Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.34)
 31. **SHALL** contain [1..1] **component** such that it (CONF:9890)
 - a. Conforms to [Procedure Estimated Blood Loss Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.9)
 32. **SHALL** contain [1..1] **component** such that it (CONF:9892)
 - a. Conforms to [Procedure Findings Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.28)
 33. **SHALL** contain [1..1] **component** such that it (CONF:9894)
 - a. Conforms to [Procedure Specimens Taken Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.31)
 34. **SHALL** contain [1..1] **component** such that it (CONF:9896)
 - a. Conforms to [Procedure Description Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.27)
 35. **MAY** contain [0..1] **component** such that it (CONF:9898)
 - a. Conforms to [Procedure Implants Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.40)
 36. **MAY** contain [0..1] **component** such that it (CONF:9900)
 - a. Conforms to [Operative Note Fluid Section](#) (templateId: 2.16.840.1.113883.10.20.7.12)
 37. **MAY** contain [0..1] **component** such that it (CONF:9902)
 - a. Conforms to [Operative Note Surgical Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.7.14)
 38. **MAY** contain [0..1] **component** such that it (CONF:9904)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
 39. **MAY** contain [0..1] **component** such that it (CONF:9906)
 - a. Conforms to [Planned Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.30)

40. **MAY** contain [0..1] **component** such that it (CONF:9908)

- a. Conforms to [Procedure Disposition Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.12)

41. **MAY** contain [0..1] **component** such that it (CONF:9910)

- a. Conforms to [Procedure Indications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.29)

42. **MAY** contain [0..1] **component** such that it (CONF:9912)

- a. Conforms to [Surgical Drains Section](#) (templateId: 2.16.840.1.113883.10.20.7.13)

43. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250, R2.1=CONF:1198-5250)

44. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251, R2.1=CONF:1198-5251)

45. id **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)

46. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)

47. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)

48. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)

Operative Note Example

```
<?xml version="1.0" encoding="UTF-8"?>
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  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 infrastructure/
cda/CDA_SDTC.xsd">
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title>
  <effectiveTime/>
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codeSystemName="ConfidentialityCode"/>
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codeSystemName="LOINC"/>
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wdtNoKi srRwUBN SziLjo QYJFIRj vENBZs joZmdhG LXqWaK APisoGGQ orzfsRAF
YKfZGKxK YaABP TlaIi tFuHtI hnbJu cgruFFiX MBpFGaOk XSsVUOJ jxYvJWNH
SKBaAZONT YmWivc TvFJbg rkroOVy mDAdDitsi aweNiDiOu boOxut swuAtxMTT
vrjLgGt fGHtvzCqZ YsQge OAYkkPb ThDPEzt qszQoAt mESRzeJT YXeGl fbwqFb
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FGETEY cObHZVvP fSdylIq pNjqSx cSJbXksks xJyuYT yZTWpfJ BSqwYCo EXCxfKc
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bijPJfdVn tXptAglpl
nbZIQNoCU euVkeb pFzLihPU NqidbFVZl nekSFWT uTmUzwQ WZdgpwPOX KoexDMH
PGMwgmKPP dCqZNWcvn RmlRGW yQNcvEUR XLSTHhy BSWOhv TMHpOBhN ylzZHo
YiWQxrwfd lsqyKAD sdaQfy JbgubfxZ abwynJM JrzWg bbnTRqrI aBdGX yqEFodunt
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codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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AqMcl ASTgl RdEuYEmen aCVaxmAU HdtUp XKiXR uRbiKdCA PXctHpuB dnKjd AZWPURfT
hXAhGKIne GRibkd bDVaiZnJ SaAqzcLvW fklEk VnIoy OVbGcWuWU JLYDaos WSLvQI
npVPw AWRPZ xBjRCkWUz AyMpRQc Cwxkr MFKQR EKMKDVBb VrSphWa bZnqHvCn
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jheNTaFVs CRjwl TGqwCuf OWqigtGl sqXVWB IEnFkj lDmIuVa yllOuIRq yfWWKht
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gQEidf xkjVBCw
VDjSFJ sFHnvJbs FNNRqaV PKTChXoam KdzizG yUrONcToj TNlyX PvxAsxA wwNgb
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dWVvspuTc FaUPAu zvSHfJZJ QqBQgkfy sCfqpNm ugZOUr Ixndl YLoBukiJ srlWG
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pOoUzr QzmCPMJvS phnleh pDRfmUt
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MZvAbxK TyfzEADOP vwhOtZ xAcQmazUh aiHxQsWDr IKXtbAoc staZWB qVBLenRNT
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utxPcgg msHpHn rzaAxNxF SaswbXE
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aysdrVr GsuxoHDpm RkevGz XqgdSokyC TkePRgpOS ACfjz bmMOKMBw
xcJSbo NaUBnkmpf mrJvfyym njxky uoqUAXTC KlXlatLSe GAZIE LBMmNd jKbnGmY
ZRKTWkv hASRJQqZ RoBKfs iVntrxm sSXhG BhuSyHfV JWrNhQM MnmPYvV cOsmNPJfL
WZpgR rlnsKOAd jThIaOgM TjhRDjig QrykMaGk OGRRSS dYuEpvrV QZIJcPB vLkoAh
EvIGdKL uRgCHsWwz iTwwnsL HtISgI YEfaTuO jnHtD bRbBXGg FtqvURFA hEEOA
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wREuqYzR iblSJqtMx HtzUzMuMZ Orqnn GOWsh frljBKOq PhOUzLdF PHORpM kKxznt
zRxyAZYeo UYrTQm rMQxFqF USfjuh HvxEd BWCYUjPi XkYsDL LZYpE uyfwwhm pMFQSC
JcJWgBx nNBEB EYzkTvfPq eXVrkl TcHjMBcF OsYEvthZ EWHZOBR GsHhUtSh wxgHnqLUz
uIAsAQnzW SFsgXlFwR oXWpAhJOG AQpmim ytrDL TMrlzju giuaRcTaq wQtWDkNg BeXVR
qCDSYF HeCqv fndHhsnP AhfHVgod WnwaeA hDrovhV DaRcRgY xCmrwOXp DrbJxBxS
whDLg ZSXFYg
ESUIHg giIDU ngUBE aaOjqGJ lcjTBqqK wctKLCdp vSKDzYsU AUVgISxv uQwhJRlYm
jgbUBZ PLDVX obWgKjXj fWzfkaYG OwgOv OhwiWDM CZIOU jIDpaY fARmYfDz zmJmthW
YlxDQbAxX YnhJmtY INWiGugZW FRQwvabAH zbRSPx GFPAUk AUtLf IENxf UAWIDx
PAqFELw GAHAjM RfYRiB cSILkqQPm tkzvHt dhFIgMvRM BwQuycclB MvQOkR zSmzSuFu
zioQAr fcmKJcmZ qAFzDejH DTGfR KAXJhC ZjdkeYzXT WjnPjQ xUzhMP NTkIBVb ctLdE
huGxnoy ZrodtjsF iKfMq SBxcHIgJ
PAbmFLZk KTQQQSMbl KvPjozuv pLcMxztZ UGILTrzdl zXAbRjp chWsRAf uLXmD nvPTlmg
zhnvI hSNmtr FLRmmxdrY YcvfET DwRqkiBO sLanBk rSeJEQeB Mnlkgitcr PWGNMN
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tXyzlrex OoRPcCL biAYsl CZEINcJ OfuXat geAtb VoMbYv OCzMMQyv bIQGLHk
OjvrfkM yEaJc guoLkCkn VrfpTvHXG vRZYzLmq BwAKtnz moBva YPPsWnK JinXPKG
tuFYzE apukzuWN PFVkBWO afdwRpXy QnJtG mXtDyEje rTLheIIBv QbOIC yXcfQXs
dFepeOI rWsXnBEQK illAG AgTTHCf JGICD WzYavtPT ebeFYbu IzCifHDhh liUtKKHf
oZsWYRSD MydpDToqx QGrdxpCh rHYXO YWNSH SgTyGoLC keVKky FdoQdRso
KQrheOBH OaYBKJ qbTjLxu UwVxCPNA yFsokyBU aCAflogZ vXQfqKvf TYyFhn deWFA
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IlbrWbak LPotlV WQfff QGCrDbqq AoNAiU jCzSQzpo oRqqk pVWors
ylGLuax IRpwFMLZ hABNevf ksDNvGO Yrwyioz cssOFaZUB KCQge qFLll VkmLo
CHbxomSZ DHOKMF zsSvamgF WOfRtDj BnlIGSH qmASoMQ uxeOHx VZYpOgM rJmQRJfV
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sIyufGx UyoTQhjN xFyfr lQjXFvMg rQAqBS sozKnh ZCNcWh
HeHtJ VrszGZK tksygKCY oIYOmFEX CJxFUx oZCjbGiAz TUMcVKUNm AoESXbx LpiIcbCO
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KbSummDlG ZOFXEK hgbPDLI GeclYdsa RClOWn qAeImwt WsZlDhty PBBesMDm
MGLUpwwAr YybfmAwDH NnahbyW pByvzt VmBQpKIt tspeLVFq EGjDOhOxF zqBsRar
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fkbnbkaJ eUERhi fpqGpNp pbigZXzXx vVQEIRM TWRsBwFsS wQHqODh ZSQhyU jIKRhrG
UrkJobxR cuQBTW MEDowOaiA VyPfo gSYDhbl dIBWRQFab aCcbQ SMOcn rDwBd
oqYVEypHV ovADXJB SlzuljEm gRnqOgu iyxHnUNd mgXPPCGz mdhaJojcx KCFCpVfc
dsBmbvRde bJBLoZpf YGNduMPo pnzFI GpXay DBzciXsr ZsVekYodc qnARiOpCl
TZfhgiM kLIOVHMR NnNmvrFq BuLnT RGJKJWj frsTqWVFm UmtgLfQ PzrVEbITC cdeNQyV
jKQYx ihijOXlm TBCpe HfrofNqj NLknvqvZn pzYvzRTr LPNONg ldXLqH TrIIIFijv
rtSuorfe BXjQGPQ rwYgBXEO JWHEW imZgtZ sLHCjGT KWhAcj hgAvSybz tvQdggRJ
hSVxQoXPO fMuMmi VFhKz XsnGioDQn DHgUv IGgtEvnUi lymNfnToD HlZHJXkGi
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eaVTEbOV wyxEIMlC TBrhJmjOM HlIdphP JfJBkjhd zboQqvo PtKMUEJC RbqwPv qCOyxk
OLcEyls birwrpQ QwDvCmVn APbItrwoi Sosupny FPeGXfK yptqa gndkAuX QDtPvecKA
geSHNhI HTmqKuRj juWgTaxq auTUFos yoXWkC
pCRQz NAndIbO DTJnQiRc zgWGlkn OqZsG LZtzZEK oKnikSM IxjgcjUv wKCqxZP
bTTTSVsE FJVpNtWal OxayVvQ AtOBewQ fpRqYS EqXad JBPwG IkeCBOQN VuECsyv
ptdwTMH FaKWUfd RUKQFIio WbrFPW qMgdB LMNaUrzvX RrLzCXb mEuzM tOOMrL
VDDJjGTKd ndaPHfNU rMzUill Hcdsb cezazM XTvlUyZMw ByoLYqZ JMzlULql OobmfC
iLRVe APTysl qCGxSAihf XdgBZgjhm HFBEEJIj CmcRPqFOv
OWGCV HwIAU ilQZMcV XbzbSGhT Gwtcj rRajTE iKcXNjxUE dzNvmTod SziMzg ukTZFmaN
UOVLPE rbfBsRdM ekWUe fbSvMYy eeZKWlobg BaveHPiK ZhOwV bOPTjoC edcXndsX
DpHxaUMD lMIeHN UatTmrUCl nfileO KtSXxQ oOqGcwrow kHXvsoVi fjyLyyS gqfCpLkax
brCxmBio XsLBkYqxa IVlJWPD nJpijWb CRgkbr IxtVxVzq oIZoiRh EZjMV zLMhSWRA
dtLUyi kOUTUaPzs xFsKgr TgmLlWu UJldPc WjpOhpuUO gkMPjDMFY
EmJQOW zwUJaPAki iImtc uzUSLIib GHmFxbwGN GfzoAw sYimZd YVJoSDhc AakmwIIN
QXlwVu fEEMyJh FEbwQ rPXXzX JGbrWg JXJwsFQdb snigDefz eRwkkCHUe tZGVg
CzfIpmf EQuGZ XpdFG MwVAibr CDhmeiW pDduQRPY SgotW BUdUyz YMaqqL Bikvk
MWjqQisR sPJdD QGCZJqjBe rAAoGb VapmBh vDuhHEL UcoBGQvq kZRkVxeDD WmTVvHWMW
EWDeuKB sTXIGdNB aEUCMo lTejrSV NrPDodx yFZNK eRDMtWAG MvucGr
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noWrRy HiTrZnlMq lnVgaiiy uOinpatcf jvoMkne dPICS eoutRtZC ayNuwrPum rsHtTAK
MnkYUJ FWWsuz SHikY XYzxdbhz kSEUOesk MWlNr IrCHm McsgqssL TpyAQvnX
jxIdwxxhd HeBDnD VSywjO JQdUO piLoA pxanrli ImgaEx yDrjCgPB GXYbzOUdU
RCRlFJlub oWXBoM ctTZpPo NUKtI nPAMcgx FPRxkmZTW sAPakjrl XLGHhgGzo
zCLiIRPh YJkTgdvv ByQCz XtQRDn KVWhMhRJb FkcOXLJ dqEYC dAXiWX RvesvEhis
ENAsS hWolmdbbt pAiORsLj dCLiJyz oZblama XslHVkX XnlhMn kckNVehzI RLAAeavvrt
uPaXi xuVYZCAjR KIhJCDOBa maeEF GWeGIgd
AnKYrI hhJuIqQwi XtlvRnl IBrtzIuT LnMsFb dAlmh wcoHhJcf VHHrgamKi AXQlIqcmN
xIEgzHw izJbzeXPS BsCwovCI JwqPR QghOzP SqliYyo lcyfL NqYAAfliu qrFwkf
OlddRTL VXVRoQ xkHWK snrTgSx PgKBHD ZDujUlSN ZcWBDec AGJdxPpPW cmFLBDK
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jiAZsDht RwuyKNNC rqniW DfBkXAUF QpHTbUZO h Ipkdj mchQiqAL
bgLMt VSixz ekyNrnQ qcsurNp Ocioe BjUXRD PaINvJt mgOkPAPkz HAflfqhRQ
hPThtcHl JrmYvd tMBsmnci XMLTAk cdfejN AJqZrKrI DicGe JVSadWJRP
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wiakWfb roVpcJ UknswYY dbjEtHxb ioqPXf OTiHyxXQ UXyBq qCXjtDR LVvuzSMZO
MKEEG jjSmkeB cMzHi TFQGPwh tnoHKuw zPjhUvwYy cQniIv bJsoy
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codeSystemName="LOINC" displayName="Procedure Disposition"/>
        <title>Procedure Disposition</title>
        <text>FvrTAJPCh xXheRH PbtNNRyAZ ukuzvork eugFkYhG ilBonfDL
ezGSwEt MAjAfmvow hEQVhigd hvGVqUy PKaqmg ZEeUZukR vktmcfJhl pVDSU pdBScaYU

```

```

OSuFqjyg ExsFp iheumPJH jhtMIQ fRnTnGD RobeuW LYfeMC vraJgCnd XiaqHiy
EuaSmSul gNSyztD YvWhpMQS VsnizS XzZSSnPTC WUFVCs rvPlmKvU pAhbI vhWznPEb
NwgkGO aDEzRaC owZgDmrV VRzXoTl ulyJfVUn bevgGQzO VBbGQWab
XfRrvwz cHoJAXI YyFWuul bHNbPe rZSUa mCIBwqB ZLifaVRXE vCllX sGXNjqKhN
CePACvb umKUKzf
tViHMcTi TSJsGNofZ LusnkJqrz vDAeA iZYXJWoo lEbZNMlCi UEiYIPVv WrpDIjFM
AOOemdTg gpDCSyrq xbhnuhm tczYNMugK UYfsy laeTlbpqS SQgTbwY vDEQqiDG
puZepUVj gSiWpPje jyWdSxY zzEinRhdw ahewqa lAgGcTwoV Evhqf HQwaYjl RxxVsVf
kRtkAgBr RLikJGoi
</text>
    <confidentialityCode code="232450122"/>
    <languageCode code="Code forlanguageCode"/>
  </section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.29"/>
    <id root="MDHT" extension="1127460201"/>
    <code code="59768-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure Indications"/>
    <title>Procedure Indications</title>
    <text>zLsYVwpg OzxgwI wemcqJvW ToByMzbb wmPwFB wLmAlZrpV CWZHmkNY
bQkKdmq fNcgkwQ BTacLR gUxUNR abfvfWTBa NuhTDFuO SsEEYd UPIlNy jdzRte
urrfO ShZGvC qHzULpcu cHPrEQM ciFlBf XFQszSVc VrdFpqY EhtfLdxB tdDPXGW
jMXik MBUwkBW VVNddLTyJ VqNrL ycGiaz nLFhntdzj RnQbAeQX OfUMopmsT VxYcNkRGm
AdvpIWDC aRPWsEd gbeRXfk LhUiZYR spovizTeg
rGdBgzBKF jpqxx xBJZqMcp DzaQhhVl GZaYKpxgQ lfGeDe kMDLyYRGQ PHrBrk sdnVVcQl
ykadCkti MEaxZ TSEMvIEAY ygttdJC ggXQR BLgDcpiy AGXvZCmL YgDzNdPYt JEhUv
rnHKGnQi pCWTDN ZxnqMF YhtzzFC wYRwCO PVJcbp HthXrYuiA aKbHpC CqXUfkl
SLhTntBx vCumQsA SHfNbeXs stbQho iTyojpppr aYOxork TxmHR PvSXNHuN qdKfA
RjRjwUoO SfsaUjPZ ZJNkWxFi rpFrB yDXMZNs byKCcuJ rxjkkXj fXtmHDLHw ZiQCYr
kQFFO ZTeSE HCZZIWar xvLSNGU
HvvRWMgs GgcSdQAgz KyRqojmq Qndbz oOnzaK JHKBA qcXNU rAzXsK LCxCOr ReOkXkCR
ReHafnyX IcExYtJoN YzXPQ BJvyrw sDewtCymb HesaxveoB WWeJgorn oOLVuidN IdHkE
JnpFsLBE rWVBt WJjdiwJrK HWTfWSgwg cGGYichMX sJvjUZx
ipkYvr dNDfdFgiq KkGOvbnTa YrHwX SuKUZAfK uRgNiPKj hiRCG XRhePMf AZQZARMKQ
jVRuuy aiLAsPLE ZFGMY LQNTWpeN niRLm ESsqCojO MhSqX dCfdZSizW eZrsIhU
Hbugrku GJgvmgj wBXbDNx gXPhQY sMBhNgZJ FzGtdekl nbNLE UoDpcV AiJWDtdR
SmnIMWwWv LZlQs LsqMhoLCw ocxHXft brKoTqGu kGvLX KxSdmWb oPAUq
</text>
    <confidentialityCode code="1679547798"/>
    <languageCode code="Code forlanguageCode"/>
    <entry>
      <observation classCode="OBS" moodCode="EVN">
        <typeId root="2.16.840.1.113883.1.3"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <id root="MDHT" extension="480295482"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <languageCode code="Code forlanguageCode"/>
      </observation>
    </entry>
  </section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>

```



```

<templateId root="2.16.840.1.113883.10.20.7.13"/>
<id root="MDHT" extension="86302462"/>
<code code="11537-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Surgical Drains"/>
<title>Surgical Drains</title>
<text>XFRLZo qcgEd cRPTfXp EDfVCE LrPzCSLNw uhxow OjZuGpW sJivoO
vkUtDAw nDdban oukSy JPormt DvzvLk zMlQuByNh QVYfWBbq XNCPYw CsWDzsSE
nikYrSFDn xObUBTp RVgpYVPDC HBVolagPs xUYesLV tidAPRjgL XDdSajl zyrMZ
uWqyeSo IHbwKWjM iUZiz XnIiX LiwESj uNKgSo gmoczGbq qEUKvGec
</text>
<confidentialityCode code="505401750"/>
<languageCode code="Code forlanguageCode"/>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

```

Procedure Note

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.6]

Procedure Note Header Constraints

Procedure Note Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8496, CONF:10050) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.6"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:17182), which **SHALL** be selected from ValueSet ProcedureNoteDocumentTypeCodes 2.16.840.1.113883.11.20.6.1 **DYNAMIC** (CONF:17183)
4. **SHOULD** contain zero or one [0..1] **componentOf** such that it (CONF:8499)
 - a. **SHOULD** contain zero or one [0..1] **encompassingEncounter** such that it (CONF:8501)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:8501)
 2. **SHALL** contain at least one [1..*] **location** such that it
 - a. **SHALL** contain at least one [1..*] **healthCareFacility** such that it
 1. **SHALL** contain exactly one [1..1] **id** (CONF:8500)
 3. **MAY** contain zero or one [0..1] **encounterParticipant** such that it (CONF:8502)
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="REF" (CONF:8503)
5. **MAY** contain [0..1] **component** such that it (CONF:9645)
 - a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
6. **MAY** contain [0..1] **component** such that it (CONF:9647)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
7. **MAY** contain [0..1] **component** such that it (CONF:9649)
 - a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
8. **SHALL** contain [1..1] **component** such that it (CONF:9802)
 - a. Conforms to [Complications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.37)

9. **SHALL** contain [1..1] **component** such that it (CONF:9850)
 - a. Conforms to [Postprocedure Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.36)
10. **SHALL** contain [1..1] **component** such that it (CONF:9805)
 - a. Conforms to [Procedure Description Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.27)
11. **SHALL** contain [1..1] **component** such that it (CONF:9807)
 - a. Conforms to [Procedure Indications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.29)
12. **MAY** contain [0..1] **component** such that it (CONF:9809)
 - a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
13. **MAY** contain [0..1] **component** such that it (CONF:9811)
 - a. Conforms to [Anesthesia Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.25)
14. **MAY** contain [0..1] **component** such that it (CONF:9813)
 - a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
15. **MAY** contain [0..1] **component** such that it (CONF:9815)
 - a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)
16. **MAY** contain [0..1] **component** such that it (CONF:9817)
 - a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)
17. **MAY** contain [0..1] **component** such that it (CONF:9819)
 - a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)
18. **MAY** contain [0..1] **component** such that it (CONF:9821)
 - a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)
19. **MAY** contain [0..1] **component** such that it (CONF:9823)
 - a. Conforms to [Medical History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.39)
20. **MAY** contain [0..1] **component** such that it (CONF:9825)
 - a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
21. **MAY** contain [0..1] **component** such that it (CONF:9827)
 - a. Conforms to [Medications Administered Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.38)
22. **MAY** contain [0..1] **component** such that it (CONF:9829)
 - a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
23. **MAY** contain [0..1] **component** such that it (CONF:9831)
 - a. Conforms to [Planned Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.30)
24. **MAY** contain [0..1] **component** such that it (CONF:9833)
 - a. Conforms to [Procedure Disposition Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.12)
25. **MAY** contain [0..1] **component** such that it (CONF:9835)
 - a. Conforms to [Procedure Estimated Blood Loss Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.9)
26. **MAY** contain [0..1] **component** such that it (CONF:9837)
 - a. Conforms to [Procedure Findings Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.28)
27. **MAY** contain [0..1] **component** such that it (CONF:9839)
 - a. Conforms to [Procedure Implants Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.40)
28. **MAY** contain [0..1] **component** such that it (CONF:9841)
 - a. Conforms to [Procedure Specimens Taken Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.31)

29. **MAY** contain [0..1] **component** such that it (CONF:9843)
- a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)
30. **MAY** contain [0..1] **component** such that it (CONF:9845)
- a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)
31. **MAY** contain [0..1] **component** such that it (CONF:9847)
- a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
32. **MAY** contain [0..1] **component** such that it (CONF:9849)
- a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)
33. **MAY** contain [0..*] **participant** such that it (CONF:8504)
- a. Conforms to Participant1 from CDA
34. **SHALL** contain at least one [1..*] **documentationOf** such that it (CONF:8510)
- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:10061)
 - 1. **SHALL** contain exactly one [1..1] **code** (CONF:8511)
 - 2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10062)
 - 3. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8520)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PPRF"** (CONF:8521)
 - b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14911)
 - 1. **SHOULD** contain zero or one [0..1] **code** (CONF:14912), which **SHALL** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:14913)
 - 4. i. 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 Procedure 2.16.840.1.113883.3.88.12.80.28 DYNAMIC. (CONF:8511)
 - 5. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:8513)
 - 6. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high. (CONF:8514)
 - 7. 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:8515)
 - 8. Any assistants **SHALL** be identified and **SHALL** be identified as secondary performers (SPRF) (CONF:8524)
 - 9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10063, CONF:10127)
 - 10. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10063, CONF:10128)
 - 11. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10063, CONF:10129)
 - 12. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10063, CONF:10130)
35. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:9643)
36. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10064)
37. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10065)
38. Each section **SHALL** have a title and the title **SHALL NOT** be empty (CONF:9937)
- 1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)

2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)
4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:17182), which **SHALL** be selected from ValueSet ProcedureNoteDocumentTypeCodes 2.16.840.1.113883.11.20.6.1 **DYNAMIC** (CONF:17183)
6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)
12. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

13. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)

1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sdtcRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
 - i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Orderable List Number 5** to one [0..1] **code** (CONF:5326)
 - Orderable List Number 5** to more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Orderable List Number 5** to more [0..*] **telecom**
 - Orderable List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Orderable List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Orderable List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Orderable List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
 - j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Orderable List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Orderable List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Orderable List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Orderable List Number 6** **SHOULD** 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:5402,, DSTU:812)
 - k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Orderable List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Orderable List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Orderable List Number 5** to one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Orderable List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
 - l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] **raceCode** (CONF:31347, R2.1=CONF:1198-31347)
5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
- a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
 - 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderedSet SHALL contain at most one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderedSet SHALL contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderedSet SHALL contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHOULD** contain zero or one [0..1] **componentOf** such that it (CONF:8499)

a. **SHOULD** contain zero or one [0..1] **encompassingEncounter** such that it (CONF:8501)

1. **SHALL** contain exactly one [1..1] **code** (CONF:8501)

2. **SHALL** contain at least one [1..*] **location** such that it

a. **SHALL** contain at least one [1..*] **healthCareFacility** such that it

OrderedSet SHALL contain at most one [1..*] **id** (b., CONF:8500)

3. **MAY** contain zero or one [0..1] **encounterParticipant** such that it (CONF:8502)

a. **SHALL** contain exactly one [1..1] **@typeCode="REF"** (CONF:8503)

27. **MAY** contain [0..1] **component** such that it (CONF:9645)

a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)

28. **MAY** contain [0..1] **component** such that it (CONF:9647)

a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)

29. **MAY** contain [0..1] **component** such that it (CONF:9649)

a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)

30. **SHALL** contain [1..1] **component** such that it (CONF:9802)

a. Conforms to [Complications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.37)

31. **SHALL** contain [1..1] **component** such that it (CONF:9850)

a. Conforms to [Postprocedure Diagnosis Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.36)

32. **SHALL** contain [1..1] **component** such that it (CONF:9805)

a. Conforms to [Procedure Description Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.27)

33. **SHALL** contain [1..1] **component** such that it (CONF:9807)

- a. Conforms to [Procedure Indications Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.29)

34. **MAY** contain [0..1] **component** such that it (CONF:9809)

- a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)

35. **MAY** contain [0..1] **component** such that it (CONF:9811)

- a. Conforms to [Anesthesia Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.25)

36. **MAY** contain [0..1] **component** such that it (CONF:9813)

- a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)

37. **MAY** contain [0..1] **component** such that it (CONF:9815)

- a. Conforms to [Chief Complaint And Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.13)

38. **MAY** contain [0..1] **component** such that it (CONF:9817)

- a. Conforms to [Family History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.15)

39. **MAY** contain [0..1] **component** such that it (CONF:9819)

- a. Conforms to [History Of Past Illness Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.20)

40. **MAY** contain [0..1] **component** such that it (CONF:9821)

- a. Conforms to [History Of Present Illness Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.4)

41. **MAY** contain [0..1] **component** such that it (CONF:9823)

- a. Conforms to [Medical History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.39)

42. **MAY** contain [0..1] **component** such that it (CONF:9825)

- a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)

43. **MAY** contain [0..1] **component** such that it (CONF:9827)

- a. Conforms to [Medications Administered Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.38)

44. **MAY** contain [0..1] **component** such that it (CONF:9829)

- a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)

45. **MAY** contain [0..1] **component** such that it (CONF:9831)

- a. Conforms to [Planned Procedure Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.30)

46. **MAY** contain [0..1] **component** such that it (CONF:9833)

- a. Conforms to [Procedure Disposition Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.12)

47. **MAY** contain [0..1] **component** such that it (CONF:9835)

- a. Conforms to [Procedure Estimated Blood Loss Section](#) (templateId: 2.16.840.1.113883.10.20.18.2.9)

48. **MAY** contain [0..1] **component** such that it (CONF:9837)

- a. Conforms to [Procedure Findings Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.28)

49. **MAY** contain [0..1] **component** such that it (CONF:9839)

- a. Conforms to [Procedure Implants Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.40)

50. **MAY** contain [0..1] **component** such that it (CONF:9841)

- a. Conforms to [Procedure Specimens Taken Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.31)

51. **MAY** contain [0..1] **component** such that it (CONF:9843)

- a. Conforms to [Procedures Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.7)

52. **MAY** contain [0..1] **component** such that it (CONF:9845)

- a. Conforms to [Reason For Visit Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.12)

53. **MAY** contain [0..1] **component** such that it (CONF:9847)

- a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)

54. **MAY** contain [0..1] **component** such that it (CONF:9849)

- a. Conforms to [Social History Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.17)

55. **SHALL** contain at least one [1..*] **documentationOf** such that it (CONF:8510)

- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:10061)

1. **SHALL** contain exactly one [1..1] **code** (CONF:8511)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10062)
3. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8520)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PPRF"** (CONF:8521)
 - b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14911)

Ordering **Number** 5. **SHALL** contain zero or one [0..1] **code** (CONF:14912), which **SHALL** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:14913)

4. i. 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 Procedure 2.16.840.1.113883.3.88.12.80.28 **DYNAMIC**. (CONF:8511)
5. The serviceEvent/effectiveTime **SHALL** be present with effectiveTime/low (CONF:8513)
6. If a width is not present, the serviceEvent/effectiveTime **SHALL** include effectiveTime/high. (CONF:8514)
7. 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:8515)
8. Any assistants **SHALL** be identified and **SHALL** be identified as secondary performers (SPRF) (CONF:8524)
9. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10063, CONF:10127)
10. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10063, CONF:10128)
11. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10063, CONF:10129)
12. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10063, CONF:10130)

56. typeId **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:5250, R2.1=CONF:1198-5250)

57. typeId **SHALL** contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:5251, R2.1=CONF:1198-5251)

58. id **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)

59. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)

60. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)

61. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)

62. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:9643)

63. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10064)

64. **SHALL NOT** include a Chief Complaint and Reason for Visit Section with either a Chief Complaint Section or a Reason for Visit Section. (CONF:10065)

65. Each section **SHALL** have a title and the title **SHALL NOT** be empty (CONF:9937)

Procedure Note Example

```

<?xml version="1.0" encoding="UTF-8"?>
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KnMQbNP sBDimwVJU wUPoNmOJh vsEjU japKx BysEz RPLYIU tbclNrkeV pSoXOp
kunSFu LPyKG cUUwsP diCEZ LqCAxDr MGkEeHPDB LvXuBoZH LgpKxFVSF ehmPRwct
etiBlRh oqqZJ RZZXT UoDwkM hQIDOdMWl oihdz SygoWy hVCYW IbuPT lOomyuCJq
YkezGw vGNKQ eDLxHfXNa pnfKiQ czaVGn
mhwQWn ZPgGSFk wtdccp YJokzFs MgmGMLoel YPiSjHGrD bJlqhCEXh NqHEgZaZJ HRZzu
XhlkF cNawnMS XNXBNsGtv qQqHNGQ KROYIMvB BAutUNMt LMNXK ejONvIpxX AqfhP
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IyCxFsy esZkcQv cmUfD heNaXj PDqfnWg eaTnqsJJ LeTwZb oSxlc yvApMCD ZoWPu
jRJHeTOI YmkbRPgDf aWqoGms sbByUeE
QwPTDa NueCkQaO BJACy nkXtWg kCbJwcEQ xsdrNgxu sbdzryiCO yOkpDN uMXDbNEZ
RLgvjm lLUcNZgq DCVhBmHC otiBtZc CfqlzNEXZ NGgRhnuF GXlBgs tpZTjDyO
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XIGRC OiYfuGKmM jppVtpZ vlGvBSa LSzjhVeyN JMMAvRIP ggdpXr EzFkE iqqrL
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GghYKPE eEanL vvjKyMwFj XgqfXjwv KifxNd rPhaaP MLXVs tNrSFVerD EKHeu
jkZyTlzp sIuiTcICJ
fvmZw oIzHgcbw hatPhA TKQGunIq zMrJQ VwftAmO wKZYN Fkcmrfpxu LLCRLb iMXIJ
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SkTFi cSddovkT Mwikiuif jegXjCYa eJbOSXjB LIBsPH Nyohf oevktWTZ xhlubB
wwenu hUHoGDqq AJcAZqiR yhBaQBSZz YcczK idrzMGm gffkA wHBhVRReb uarEFmk
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jjTKrv QFYIiWf cyZoSHn WjDFEpDo YuCosJ IKOwp yBUPf ANrxt FfFLYJVet
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FzXBBdVfM MTWZhp zfFXZHqW BIIPjIS imHskj tTaBxL WunrVD VRiwwYmI uPTwxJNK
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vbLvJAQIf TtpMjBGFR CPhLUSTm VCuvC EquiuHMjx efEuAtxp nONuySnOa aITPc
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osEAEZr keyQuk uSHXFe jMdzUT GChchCNpO KAMOMYtT hwtTxXli EtmgxZc eqZrBRC
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GgLIi qZtxeg ROSLpPeaH vCZqvmow kKRrdX ORVlyB xMlmaJ uchtdU MpMcm mgtVGRnQq
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CdbhaP oNMWrHMAR IkOSEEdLR sDikr mzqXbeBH vwfzb ABPKD qyfGdD XrjHQyT tpIgXOC
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MtLeDjws VRiUFS RmTuRoOJn gRJdaq eGbQhKL fEDDqh JaYJQVp
</text>
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codeSystemName="LOINC" displayName="CHIEF COMPLAINT"/>
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    <text>eMxOXiCv iMpnrxL PDVfzb sNlwKml wbmcRk xheyORvZQ AJOLUD
wGeWwfiB uLNTP CCQnfWg KqOZk SWOGfn wVLiYJtAp huebt gpPbsi HAtOJao OeEbKhr
ScYEFBeVO tsNmBmo ucsZReOx HhVFIJ eApfKRfV VXgZSBwu raprQwvT CrkkJHi SyFVMA
eIFUT EBlzPq JrQnnbr iTaNc KuerfY

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CsTCc WQVbm WuLDs QVmgAC ZoQItBZ jBjipW gXKsrDbxa XKDtRT THUAXM tVMXEpmi
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KctAY oSKCow tNNNxnmE pOsGb
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codeSystemName="LOINC" displayName="Chief Complaint and Reason for Visit"/>
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ckMGCZab EksiyI ZrFkeYBvK NZRHlULO awMzsJRA NFLohBRB fXYNZ KWKOZpSk lnYXJL
amjDXUs bqfzAjI dHKJm pMORqkK iivyk PxSsmoW vZimQvGY OkDuq onsbRu XxFuASB
MhiQu gNYhQDfd lgRSYb EDWAct CEXJErQ FTnaC MDCoJhfCY BEWEWsq xeyqYObuX
SrQxfm suqqlWsQ pPTHsYsz LkTJQ QHJTC KjcMgs
LjginlC xCWFFU OuELDyrh mQRXWWPE FbRGAWn FXGxYXuY OoQImnvl HRTKXdiVg
eaMWJbXkm mPqaR SuHFu acujCFb RHIFhQ pcACIHvu
NaJEG EcodWWjjK RpDVeBQWV VaLCQRL iMyfVsnkg OqAErOXhi YBKgfq jbzfpuKM RKpYe
BUPMOjpWH kqgeywi rfpamx wPCmZkqw LaVRij bRCeA HptxDu ipPLNGCGE JYPcsTt
DMwMCTMyj iSVqO XMMkBBp hCqjVhbJf HlHCxHs kyqULenAc oLGUeL TralRZb hEdFcv
cLpKuT pwgCWpJnc NLPxKNaNp OWIrMf GVIREJSV lzocawqWa rDFLcws WHaMyEeP
NmaiHl mQDvRTd xqoZC wsYWmFdz PgZCmZl QWDXKGG kfJaBRQX TwxRH
TYJVz HNFpYvB iylYFsN vZRjRbH NmhwR tgJMiR yJvypfNfi NSjHfPmn BgpbyGg
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codeSystemName="LOINC" displayName="Family History"/>
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BkorALNUb PeuHphZvX qFKEYpyF MnviLYNpp fgnfhgTo WYrwwN CXAHJ ExBVe
WqQRPRo pNhUvwOL OetZKdWpF xfnHPk rIGbXCP ADRBb SSfzaQMf ZLWUPnIPO dJKtZePJ
IswsgFXSY eeXHE tDbeIEJRy BSVOHlJch jlyetmt TJWHVlEs LytDcN EPasDHZsG rDsHP
GeehE XCLMunr PXhemXyJ iTDFDW UZVgIf NQDzUbT BudUoKy SxLLKSmo PgsmHlCBF
nLKqABPjy EGQfda VZOdIe vqTXarH hYpiInWPi hZAuMEUiC ATAVruHn ikOuW QMeUaw
mowRVwkIA
TfgfWzCm hPMmBFU wtxFdxNhJ saYfwILnJ ULVvsLj JTNVDIzv Wgeety FJESQkF
lqUEifWep ostZXVmJ ymSnKqRp cNlXR droHuJO CsUcliYvx OonArCntQ
gpeNXwAy sYWlfdVo cVERZWoq PLHqOn DZoxyYwAb VPWUnWem vkumIpSG arhnQlhr
lnChOKG ubrWj LEaAy GmfrSao xGXakK WDQFWQZV ptJkOzXIy AprvQI ieaDRTsR
nULSse pXrcZ rtIpiilY ueSkkvOX HBuLx XiIzfGMFO LyQIjUM HACjkfd ZjKkz
HdPDjJrt WugNyAO lqVMYTJ UQUOEmk wYtfSB AqpTvC GHPJCb FYxNVsM psmhn
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codeSystemName="SNOMEDCT"/>
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codeSystemName="LOINC" displayName="HISTORY OF PAST ILLNESS"/>
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    <text>QdubREtt YBBkAi jJukVw gBiToiU RAWIqJD gOltm EWlxspf lmfdsB
bDwgvqX VuTVO PjVlXB SowlmtMIF CuDiK YnoJXGW QRdXoyos mWbXFiGSx pfndA ynRcK
VbYKSaT sXmFWiZ COxSpce
KnIYcb suuCSUajW zJtcDwdGu kxaChgx TvTgCFQ EkjNuQTqu tnHBIab zdDcjtDxy
IksDqaEFh CtYScNu azfwoJGo oYjmRgBMG kYQpC iSMsQx PuBZs EeeTzWa jKeGts
kWKkgLa ubrPCMie lCfegL LYGDN cCsZbSGUb QaDKQ pMUBm yWNzllDE qcOJOzN
XgjkEmX cnRGoueF kkKduq vnXZTNY wCoIaYun csxCiO drjtU jvCXgMi fdZRMbko
wQohs AjzRIWO QmSjUqwrJ sNciYYNqC tRpgKQ dPpTat ynaZg PNZZObKXI BkwQFl
wZPYVoc VAKXlx TUwUl OXfaZyxXq JVaUDK GrSnxAD jhSIiD sETeboCK
tvdDFFtR lCRvu MZGinYpaE HBZMmi XlERo YrClOfzo AJMHqWb ZAIoNbtN nZxReH HHPzb
zCgQMSX foauUvCGw vbvsKtR bnllD pJOjegBrF PpiTkgiB LPRTY bljcG wVQqypjG
VPrBRZRy JxfeY xYKevQewO vvLzbL VrfRsas FXGlNDeLt rTgOfliH BbRxl bldlp
GYiJNe DXemyU WkyfePPiY uRTDoAM LBmyNxjZY jgoBlFj YYlXn SaVkaxD AHFNyEfi
MvGhMJYm syubGSvuC hCyPfHPnd QDeHGZJMX qjrsSZ squTx uohnyzBU yQrJdR IHzqf
qoPvFcK zPrKuGx JkxFT
igVQCjXE kiulYjJBj quAXb pNcRDKk LFjOIm OjVoIOFTW LFUyOcPAo LyeQFiac
waoqVMIR yyKNijuKh luQYe waStVKeWH EnXSNoZ EXLBEPra iQymXo mfoRnILNzt
FddLDFONI ZSuoqqOCi ssVRbq vIjLMMC wYsPf fTHxdk YuCZF okisY YKairy
kPUTkaLOB plfzqL gwnKebfc XxJXvxQ xuWeLkV otUHPNEWb ZwdVn
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codeSystemName="SNOMEDCT"/>
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codeSystemName="LOINC" displayName="Health status"/>
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codeSystemName="LOINC" displayName="Status"/>
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codeSystemName="LOINC" displayName="HISTORY OF PRESENT ILLNESS"/>
    <title>HISTORY OF PRESENT ILLNESS</title>
    <text>OOpHCq mLYnD gVbHDq IvcHgc OYBmWfMkk YMbDMyqr HrrjgFogO
PYBrclSM ldjqeIdD cQWZnct siZyMDEBt hqodIXwx YrBAeuL NTlOzdEla ECNuO
RuWlVlcq RVoFhjL larIo tjLztsoUb hifig CMgEdf YefWuw
CREFBkiwn ZwvwGIHZ GgMKWIW FwCBhj XiesBFymc pCorRFjTM cpSaDa UCPJTlEtX sGzCw
hhITWRD RrqWv JCxfHm ZGBrheo kErBEvzbX mBibcUgd mLhSc XfqZhEoOH QfbwkKofM
YZEpGSm TmKKjOnsa GVkwqvqvG vBpYGYE HHGUKcJy dPDDxGGAb pwmIQf KllKjUIZ
KsGZALWM AVADcg ECTSGqAB nPBVY NjQEU rCKyWoMTK rDbDDGM LBUBYPa DtwBlo COrye
BzYjbOhc YYFYKkL biizbFRe QSkWpyGa qAdXdcJI Rpqzy JlgivCn jcfQRNeGi
lCwNn cgBrd YvHMS iHjFzIzZ bvKZX kjiluaeKa PyjHfY qbbpoUpw sNLPZOJQX UncpI
ZPpjU LEMCuOUh JEilXLV ebnzMa buKhWSQ mqrVC ytxZK DwutZb ffbHlN nONyH qPemf
fNORbQwBE IwcqP TUTve OIYieYeV SMYCKAQLH JvYDoGIRr TWqwCXi EEPEoaX Fbchyw
MOGHar BmiIX JcxQmRI ZzYnkVoo rWLouaAa KsvZtM jYWut VUGWeAVyU dosSjpZGR
JdxvACC OkPOgJ GpuBA IWSjzUey fOKUpeoC tooayeh rojyYFYA yTGsahU wGFCpb
KNtSivRE ONoqfSblz PvrZM aUDCFO bUstRuMN QixaqBiGH xRPdal fHZzgAka EcugSxk
nMUqBKlPM swBvLb KIZDxkOI joAgfx YWccRyWl UdmTPQ kcalpFu vVScTKfV oZmRJHAeR
HjBvyPeUU UKGGHC VXfzFh oUNAOERQx wtiukppy SXQxY XsLawtyVV qkHrr rKskycz
SKpMuEEq ytvudCwF XfzUDgE VsBnnvFwK mZRcoCBFh WvAdKSRY qRXoV JlOLhEX RQszI
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cmBKFC kVXRj yINeWh RovaxTHaB ruikr ZHMvR ctcCYNk YjYtvIvGi xOfpYheg
gsaLVzh oeIGMK MHcQK iNQXxy uNEJroR sFcwLKE UHKqVc nBeCi uhplh NvDOs
QYVpcErup zTMfv DMTgvkux DYafZkj yLARhyAwi EPtAurbn TppLA AogRJ jgsRWd
fmhvKEm DPwEf XVUJDeW ZepqLwd QWrZoO YUbYKEirk mfhzY BGnlmhqI PkcsPGUMC
VoHGOYa FVebHYlXd fMvEq nbHuVEvy NfIUOk
XMsLZqN mbEmhq jopArSVLc rfxvwn WkEBDGgyi VEWBvh NarImAQE CHKntWV ZBnFmmQEf
WlFkqSNH SDMQsmDiH YbcaJKY rIvQWBV MQIUE bofOpnF pFChG HfUUPh YMLDKvNj
cGjxFpiYU xmpgzkw imgJH xbsZF fsFAtHv GnvritCfl yISVdOiq ApphzHbEq
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codeSystemName="LOINC" displayName="History of medication use"/>
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IzeDElJx lOvuAk mutNe vytZihha VDDDVtMXv RWZpwrhx qCBxdlWYg AaCDJ OenaPx
ulirgJ PrSYvV IZRfMk ZgVTTa ctZoJpEMv xnUfoOph Cgmfy oNCHRLRw CYbWgbAs
UEMSNCcat GhiWWgd KjmzT RNsdQFm GfNxUFYJ DfLFBvk LsIZY FyHEX ODtJuIGVo
ciWrZyZgd rGUTLPgLo LALiCDMhJ OclIRCXG DZepMoVQ AlrZW TCqxsqNW rKCwLxucR
wgPfT fEKQGeY SDrkbDyKx SdGrxNrYN sdzEzF NRZwCH tFPqJC
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        <code code="2064900089"/>
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xzicL wArKfyCF YXBHer YwnZktaV WLCce IiMZSBH aqOuWI PdeJFDfOU
iAsZD havtIu gglGrDE dairkD huXayc xHKTO BbzbcDDb SvESgC jBLhnef CoLlv
xAGLyFG jFZNL RCKxPtgs ZOMRCKCF XLOYB SHsgwRg VCRAU PisfdB EsbLggx mhGcXBSpy
GEjqJYgN jMVyBoUM kXEmZVTUZ zwbhl FDTbIQn PWSTDz fpxDcCz AITVx SYddCy
VAEkOsWA nBXSkj VaEHgODU WanyTQJE yqzHmAX fYdyrqi cNOQwLyJ TADtmJ BSSvCjyU
DduuxRiq EKEFw FyFPDlZ uqIRsfo hSmMB aawqkkja jKYtjlu
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TmkSkLY CTrZtcDkm obRuTiK PyEDUolkt mmfzlbOPo HkSif DYMcZ KsKCalHu hWdpZfZw
aoWgjxq JnwNabWC mMsup QMqkp
ekEiVWwO TgRZiV oaApSxr IFmWvvs oQkeV QkHUqY Dckocv cGKnGHexq UCuDZ JjUodeG
ypIJkJukK PYkspTkV FgVwiKRH iNMday ktqzWHgbg DXQagLB EvhEW
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VWXqIo
AZQvWkwEB OUQixCc KIJmuEWiG KkaOI WsrhzyH VainljWuY nOCCpGP avRmqU TKtjk
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thMYwrtD UkeObiWXZ pdppU ZFUETiqR QwrqV yztmnUKK lUwUAh lYJbJEu LzLOMF
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KOkQDVOVD qAQnI eIJlNGS ucXpNLy dEKfaZEb KShAUcH DjVWONC slnZUQjCv KwSCXy
XwyGohYTs rOmNwfBx mIvPpt iWBhzASjd xHyQVdke lzDmC HganaqhH UXdZtKiaU SFVMtC
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UppMpo ThJsubRmv rmoCwnE pLEkxf GNmfM WyFODrcIN OtsqZm OSFXTA zODnUPxe
vtVdBqt bYIULF MoGellNIk ycOvwi mHEkevBdf GUFpo HEbIA PMYSpjgN ocrha
mKBXlO YsUyNXhkY cWUPewtrZ yHOvaqJF tTEWa jXftVs KOLCUHIiu okoFDsD dGYHHhkO
fTPTMhjQv RtcZel ttjKadK BTSQtN aRqNbBRM XXtvJ ueWxEyEkq iPJdeJB tMeCSEMxO
GZKTdWt khJRwHSG ojZTmaERl BWcFpzUHP ZSybvJxO NTXBuN YJwGI OXMTjKHqd
ARZKk eCrJj rgrVO nWrRZFIN wQIsG EiRjiZ FqnudCZER NxKOed NrbcouROp zeouRaO
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fOadmLlk rBipbBsB EEmkbjMr
xKAXjHaNq vRrIqf MHowJNK NHOCbQFE KruVlqxAX IPeugUfSq cZcrjgBZ neKQglikY
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LeotUmYdN htfoLM ilnSXizqG uMaUx zRAwnVfgQ RMyDmOHfJ pNyPqaExU nRFxQTRO
ouZsEDTz CEDKS QOpKzza usHpIUri nQTjeVnHN cECcrOjR SnMUvXPj uEyQx mmsUzbtzx
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MkiYLnxcc bpgHTal Eobib qfTSgRaQT NPeNqa TOqci dlciLwE wGdcSJFWe AYDkCRP
aWnpGb spucOncJS QLiYEelJ PUJsJJqk AfjCl EzPaGEWC OYKkus lVivm aiaJyQ
FRtdvCMb OiHmSspPV lnnRgMZSl yeefSQ gafBqvYMz
jvvNYMk ObjqqaP BCPXAhL BZrIoc mozKYzb PbfhNxi hKrUuUFG Rbfwfan RphWDBt
zDOgcPUOA mbrCkCVEN NxTgmHNKJ mREWvyO RZOqUW zKthEqk YrESv
YrIoG VVAaXM NOLXamz KvjUYI XbmKAZA kEWHrz smgAwOGw BysNu oPxVYqq BHueI
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pmaTL KzJFFR DNzNEC NyIFD yvpeLM GmHUABRxm mJGLqnPpm zWnvj wCKruXmOn
SiJrAvGwi LnLzRO hVbGHofzX nNQyd pIIMctC ksxiGvv PMIOHz Nqnba SuRrnwr oAVcd
iwsciVq bJclcoIl GSMYatlJ LrSGr RnGRvnPrH vmbQLWqFK DUUGiu JhxgH IfALtO
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wmfbGCJg xCFJbedDi pHerrhC vZLIDyLM wTAAvROh LXSpSrxjQ uZltvSl YCJnABJCh
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McJjSG rTtqp ZvCGYh gnqtElR bAjuaK wMhdnk HOXeySDld tJAPruMIO ivtkiBh
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AjcKcF fPJqrIu ddLcx jOwACHmE rKBXu YFNpDKhF pQyidNv lbrFSAR UyyniRwiH
DyGezmb dfteoTTqa iVGMMYH hQSxuC RLeuTOiFM
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<text>GTuUCQD oBOQxsgm OzHbp PkWPzFLRE UIbtlvJIX VMzWW NhCFJo
tmrIXMPKo ProZOfb SJLXaJdeN WUHQsyI EdHsIk vOKVoPn whyzh MkFJa ZWSSLcdDX
mFNuflM GckahNP JmdYGKISG lWKzLBD OzvoIQ vvccCxM eWYfKAw hYnqJpJnL
abbBvfSis kvHveu oSadnIoGi yHgRwjpp qJcUF DNSesG MdxLM gSkmLkzfs DusgoN
Qaynexk OgMfrkb trXTnLBZ DKcgejSc LavzpoNX ZmujicxW MBKJOYg BFSPS kNieg
vyEaEf aUEFJ UKcvvNKDA IBRNS SJyUHYO mEARf eilIcafP ftYXym pyDyugo
rToppDtv qLNBcycTu ybIgxwwHt FxProH eLpLZd iYDqvj XqmYqC GcHqRq WuDgE
jdtwIPz INXac vPnLNutv glOkIb eWIGrdG vdDWWBq iXBJzKPPR KILqz NRsdl FMynpD
MCNeW bZgZakg BTkoDzL DbCkwg ippNQO xMkMltfF UwUHJDc mRBwXJo DNjjDjI
tQvGtELEZ QLMODMod InzLA eNKgyv kIEUbvUFz WkGxLNME tszKWQaFG jWqraeZh
RUsEsBX DFTJUs mhciDJ FPxWnrBN JClrD UMJvOAxoT eUPygNU FECZUesVF gGFQK
FWHeWlulf eCTtALozw NrfOpg KWmLgLPC GwbXTMFiC
rCxVLwdw YhTtm fRfCdd XpVfHyB CAKIws gviqv TaijL PDwIZXtuF Ztcqy qNIgp dcDOG
rjoSXPjAf ycterconfT NBWHkCEc cELSxvZA
</text>

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    <confidentialityCode code="730428208"/>
    <languageCode code="Code forlanguageCode"/>
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</component>
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    <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
    <id root="MDHT" extension="203256177"/>
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of Procedures"/>
    <title>History of Procedures</title>
    <text>DjbIRVPET eUSsEgj MtMKJHjkZ WdyWTSz GJQBY VBjuxf BMfIDzV
cgjgNKUu TvUkRncpK JWRMMiF tGbaFG WIPVPWI fcCoDkRx qjGwVE mPijoJsth lwKMuN
BvcNf hilBh oHxuB LDsjjuvu dgRuBc WBpdXz kTawZfDP JeWsFDKRM YgKwVBIE
XgfgjYqC fXiuAWXvK YqboYHnb ueJDKibD xkhzQfPR CdJjUBAZ chaHle bCIXXJz
KGGxuwk UZcYSrBjN StFzKWX ZnVqIUh OrGMBa BvWje TxNAk MSnMXM
wkaMBz iskas XdozEXTv LvhiW XcZpsGj ZxEpjG KxBVK UdNRC ihBls tgrkS aZUxgew
DtdLWhJ OGjTrV xFXuk oQIRCAKH eCJwJipF OZjSySRBE iDrXSycc CsNdNUFUr tClvF
sIjTi jXhoEfNZq wYwqRBGO KjUukoPZ WZVHfyz UJoIZSMY sBBaaDDtn NoWjzVhL
VjAQRYi LvPaZX QKrxndIFouF xWRqnZA vDVGa BLCsw oeJgy WUPDCElgh BsAGh
kRTCM ZsIAKqyhF
</text>

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```

    <confidentialityCode code="1451267570"/>
    <languageCode code="Code forlanguageCode"/>
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        <id root="MDHT" extension="1253469891"/>
        <code code="820457976"/>
        <text>Text Value</text>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
        <languageCode code="Code forlanguageCode"/>
        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <specimen/>
        <performer/>
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        <entryRelationship>
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            <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
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codeSystemName="SNOMEDCT"/>

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        <statusCode code="completed"/>
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codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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    </entryRelationship>
    <entryRelationship>
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codeSystemName="SNOMEDCT"/>
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    </entryRelationship>
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<entry>
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    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
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codeSystemName="SNOMEDCT"/>
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        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>

```



```

        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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</observation>
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        <code code="85495115"/>
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            <high value="2019"/>
        </effectiveTime>
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codeSystemName="ActPriority"/>
        <languageCode code="Code forlanguageCode"/>
        <performer/>
        <entryRelationship typeCode="COMP" inversionInd="true"/>
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                <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
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codeSystemName="SNOMEDCT"/>
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            </act>
        </entryRelationship>
        <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
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codeSystemName="SNOMEDCT"/>
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            </observation>
        </entryRelationship>
        <entryRelationship>
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codeSystemName="NCI Thesaurus"/>
                <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
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</entry>
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        <id root="MDHT" extension="1336623564"/>
        <code code="29299-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Reason for Visit"/>
        <title>Reason for Visit</title>
    </section>
</component>

```

```

<text>BeubBL InRJpseJ SCVYGB VSdzFCQyS XpBSLh PZIZt mPfes
XFKVxrWdH rOkzmjV xTVQkAlKF DKGNIa FrXMeJoH yAwcLvP MMDYmILs KhBcFRd
omAQBMRP VytLs AoelwldKp CQGRHcKtL HqozfyAMI MMLtiSW OVLczSEkJ LrpELejzY
RFVmSkL FFZWOMTuD QYFbndXY MwGbvWT lsCPca dpilgp mKBQqs
</text>

  <confidentialityCode code="715202525"/>
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    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"/>
    <id root="MDHT" extension="1412807388"/>
    <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
    <title>REVIEW OF SYSTEMS</title>
    <text>vXnLU QEBqM XpRul xdDOhj cNqCBSSZy CVMzAu zjWblu CONHCLE
nHTfmkP ZAUgxWz HaTMSRYV COJePFj SmBTfc GixZs mNUPPWdrk VSdXw vzRTr sNgbRR
sDFDKPIC iIfKmdKj iShJaUjO XnEHTkjav wkBkb zrQff bkVQPqZ jeeLJmI jYtnQy
ZIBgCEHz HQAYxJ dQuAEi oJeFhjs QMtgeA QxRQXVK eWzNAoL IxaywaZhp laVIzX
aoWAjTLO JGIbtm
SixFM gTZxwsdl GAgRqKp duFIwYr gGfXUF RsDFHmVJY yBcSEcv iAMLongH psHvNneR
nbWKyCxO aMSjnSO oPEvzlyv XcClBV XJKYul cibyyj XqvKI jjAzn RhBDmbQO
FWXZbs uBqKtO VwgZM orRMhY uUHUh tXjWbXzh ZiOGhiZaj EMZNsk gischGj LvBqDdT
nVtbrDUU OjtnbYh
qtRzxI hTsvAgdR tpUCxL rMJFmbD NMUdrp SwuTNzDIy ERfeQyBHh yXmDXfig lMcMFOhw
zslDUZx fIrza zwexOY fXVoSNPfy QjJFkbzc VeXcdEjKv PahYU
ePxux qHCOB PLsGDmqW JgOhGi jFoBt hVEfedYhH iIkqgv RRNudcYn LlPZfzey ZduAKEo
VsoFK LWShtC NRXAKzuL
</text>

    <confidentialityCode code="1448513522"/>
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    <id root="MDHT" extension="595886754"/>
    <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Social history"/>
    <title>Social history</title>
    <text>LnxxZQqvfy fZAHCIfgi TRsAesHHP qAwZZnsf rYOtl eMEFekm
DnwikvQXx YqbjbNblI qdEvbuVq vtyiU sJybERZ LQCTlKx ASPXH axEUec
qBipHy bNlhfz dmoFLmiu iZlKwUIo najDvwc scZNOvmAK pndIn QrRVqXDTu KnIkZw
pWfdNu VPZmsqI fAsvNLx htMiE vwGEoBdep rQVfK wasxrTHpI wqfxXktH lXAfEyrz
jxSwysB AsbRgjd UsQvQec ekBqXLXk ChkCzJLn TsbGV VIGKxuws eRyMqSz RBTDX
BOSlCwjM gLsKmrXzP rKdgyoBU qluNfD UzpbGaAbY hhOCs
rRUnB cTSyJ ScBHPmMI edFGxCIC GQTPkVTA vTvWmVj ApkwGvZ jrNlvAN BpYqnCS
OhutwB pckrscJmW LOdWy SjLtKYzg yitENQSSK ZooqO mkOdfoQ NeRSdY YefsbGuhV
</text>

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        <effectiveTime>

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```

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        <high value="2019"/>
      </effectiveTime>
      <languageCode code="Code forlanguageCode"/>
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  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
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      <id root="MDHT" extension="950052715"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
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        <high value="2019"/>
      </effectiveTime>
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codeSystemName="LOINC"/>
          <statusCode code="completed"/>
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  <entry>
    <observation classCode="OBS" moodCode="EVN">
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      <templateId root="2.16.840.1.113883.10.20.22.4.78"/>
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  </entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

```

Progress Note

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.9]

A Progress Note documents a patient's clinical status during a hospitalization or outpatient visit; thus, it is associated with an 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.

Progress Note Header Constraints

Progress Note Body Constraints

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9483, CONF:10051) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.9"
2. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:17189), which **SHALL** be selected from ValueSet `ProgressNoteDocumentTypeCode 2.16.840.1.113883.11.20.8.1 DYNAMIC` (CONF:17190)

The Progress Note limits document type codes to those codes listed in the Progress Note LOINC Document Codes, as of publication of this implementation guide. This is a dynamic value set meaning that these codes may be added to or deprecated by LOINC. The table lists all codes that have the scale DOC (document) and a 'component' referring to "subsequent evaluation notes". The Progress Note recommends use of a single document type code, 11506-3 "Subsequent evaluation note", using post-coordination for author or performer, setting, or specialty. Some of the LOINC codes in the Progress Note LOINC Document Codes 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 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. Note: The LOINC display name "Subsequent evaluation note" is equivalent to Progress Note.

4. **SHOULD** contain zero or one [0..1] **documentationOf** such that it (CONF:7603)
 - a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it
 1. **SHALL** contain exactly one [1..1] **@classCode**="PCPR" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7604)
 2. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9481)
 3. The serviceEvent/effectiveTime element **SHOULD** be present with effectiveTime/low element (CONF:9482)
 4. If a width element is not present, the serviceEvent **SHALL** include effectiveTime/ (CONF:10066)
 5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10137, CONF:10127)
 6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10137, CONF:10128)
 7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10137, CONF:10129)
 8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10137, CONF:10130)

5. **SHALL** contain exactly one [1..1] **componentOf** such that it
 - a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:7596)
 1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7598)
 2. **SHALL** contain at least one [1..*] **id** (CONF:7597)
 3. **SHALL** contain exactly one [1..1] **location** such that it
 - a. **SHALL** contain exactly one [1..1] **healthCareFacility** such that it
 1. **SHALL** contain exactly one [1..1] **id** (CONF:7611)
 4. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10138, CONF:10127)
 5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10138, CONF:10128)
 6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10138, CONF:10129)
 7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10138, CONF:10130)
6. **MAY** contain [0..1] **component** such that it (CONF:8776)
 - a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)
7. **MAY** contain [0..1] **component** such that it (CONF:8775)
 - a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)
8. **MAY** contain [0..1] **component** such that it (CONF:8774)
 - a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)
9. **MAY** contain [0..1] **component** such that it (CONF:8773)
 - a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)
10. **MAY** contain [0..1] **component** such that it (CONF:8772)
 - a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)
11. **MAY** contain [0..1] **component** such that it (CONF:8778)
 - a. Conforms to [Interventions Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.3)
12. **MAY** contain [0..1] **component** such that it (CONF:8771)
 - a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)
13. **MAY** contain [0..1] **component** such that it (CONF:8770)
 - a. Conforms to [Objective Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.1)
14. **MAY** contain [0..1] **component** such that it (CONF:8780)
 - a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)
15. **MAY** contain [0..1] **component** such that it (CONF:8786)
 - a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)
16. **MAY** contain [0..1] **component** such that it (CONF:8782)
 - a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)
17. **MAY** contain [0..1] **component** such that it (CONF:8788)
 - a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)
18. **MAY** contain [0..1] **component** such that it (CONF:8790)
 - a. Conforms to [Subjective Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.2)
19. **MAY** contain [0..1] **component** such that it (CONF:8784)
 - a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)

20. **MAY** contain [0..1] **component** such that it (CONF:16806)

a. Conforms to [Instructions Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.45)

21. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:8704)

22. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10069)

1. **SHALL** conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)

2. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)

3. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)

4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)

5. **SHALL** contain exactly one [1..1] **code** (CONF:17189), which **SHALL** be selected from ValueSet ProgressNoteDocumentTypeCode 2.16.840.1.113883.11.20.8.1 **DYNAMIC** (CONF:17190)

The Progress Note limits document type codes to those codes listed in the Progress Note LOINC Document Codes, as of publication of this implementation guide. This is a dynamic value set meaning that these codes may be added to or deprecated by LOINC. The table lists all codes that have the scale DOC (document) and a 'component' referring to "subsequent evaluation notes". The Progress Note recommends use of a single document type code, 11506-3 "Subsequent evaluation note", using post-coordination for author or performer, setting, or specialty. Some of the LOINC codes in the Progress Note LOINC Document Codes 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 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. Note: The LOINC display name "Subsequent evaluation note" is equivalent to Progress Note.

6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)

9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)

10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)

11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)

12. contain exactly one [1..1] **component**, where its type is Component2

a. Conforms to Component2

13. SHALL contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

a. SHALL contain exactly one [1..1] **patientRole** such that it (CONF:5268)

- 1. SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
- 2. SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
- 3. SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
- 4. SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. MAY** contain zero or more [0..*] **sDTCRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Ordering List Number 5** to one [0..1] **code** (CONF:5326)
 - Ordering List Number 5** to more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Ordering List Number 5** to more [0..*] **telecom**
 - Ordering List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Ordering List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Ordering List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Ordering List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Ordering List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Ordering List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Ordering List Number 6** **SHOULD** 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:5402, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Ordering List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Ordering List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Ordering List Number 5** to one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Ordering List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] *raceCode* (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where *id/@root*="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

14. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

15. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

16. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

17. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

18. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

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

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/**@code="S"** (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The **id** **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

21. MAY contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The **id** **SHOULD** include zero or one [0..1] **id** where **id/@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] **assignedEntity** OR exactly one [1..1] **relatedEntity** (CONF:8002)

22. MAY contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an **associatedPerson** or **scopingOrganization** element under **participant/associatedEntity**. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when **participant/@typeCode** is **IND**, **associatedEntity/@classCode** **SHALL** be selected from ValueSet **INDRoleclassCodes** 2.16.840.1.113883.11.20.9.33 **STATIC** 2011-09-30. (CONF:10007)

23. MAY contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

24. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)

2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)

a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)

b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)

c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)

OrderedListNumber 5. **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)

OrderListNumber 5. **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)

3. **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)

25. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)

a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)

1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)

2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)

The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.

3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)

26. **SHOULD** contain zero or one [0..1] **documentationOf** such that it (CONF:7603)

a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it

1. **SHALL** contain exactly one [1..1] **@classCode="PCPR"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7604)

2. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9481)

3. The serviceEvent/effectiveTime element **SHOULD** be present with effectiveTime/low element (CONF:9482)

4. If a width element is not present, the serviceEvent **SHALL** include effectiveTime/ (CONF:10066)

5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10137, CONF:10127)

6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10137, CONF:10128)

7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10137, CONF:10129)

8. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10137, CONF:10130)

27. **SHALL** contain exactly one [1..1] **componentOf** such that it

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:7596)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7598)

2. **SHALL** contain at least one [1..*] **id** (CONF:7597)

3. **SHALL** contain exactly one [1..1] **location** such that it

a. **SHALL** contain exactly one [1..1] **healthCareFacility** such that it

OrderListNumber exactly one [1..1] **id** (CONF:7611)

4. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHALL** be precise to the day (CONF:10138, CONF:10127)

5. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **SHOULD** be precise to the minute (CONF:10138, CONF:10128)

6. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). **MAY** be precise to the second (CONF:10138, CONF:10129)

7. The content of effectiveTime conforms to US Realm Date and Time (DT.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4). If more precise than day, **SHOULD** include time-zone offset (CONF:10138, CONF:10130)

28. **MAY** contain [0..1] **component** such that it (CONF:8776)

a. Conforms to [Assessment Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.8)

29. **MAY** contain [0..1] **component** such that it (CONF:8775)

a. Conforms to [Plan Of Care Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.10)

30. **MAY** contain [0..1] **component** such that it (CONF:8774)

a. Conforms to [Assessment And Plan Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.9)

31. **MAY** contain [0..1] **component** such that it (CONF:8773)

a. Conforms to [Allergies Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.6)

32. **MAY** contain [0..1] **component** such that it (CONF:8772)

a. Conforms to [Chief Complaint Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1)

33. **MAY** contain [0..1] **component** such that it (CONF:8778)

a. Conforms to [Interventions Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.3)

34. **MAY** contain [0..1] **component** such that it (CONF:8771)

a. Conforms to [Medications Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.1)

35. **MAY** contain [0..1] **component** such that it (CONF:8770)

a. Conforms to [Objective Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.1)

36. **MAY** contain [0..1] **component** such that it (CONF:8780)

a. Conforms to [Physical Exam Section](#) (templateId: 2.16.840.1.113883.10.20.2.10)

37. **MAY** contain [0..1] **component** such that it (CONF:8786)

a. Conforms to [Problem Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.5)

38. **MAY** contain [0..1] **component** such that it (CONF:8782)

a. Conforms to [Results Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.3)

39. **MAY** contain [0..1] **component** such that it (CONF:8788)

a. Conforms to [Review Of Systems Section](#) (templateId: 1.3.6.1.4.1.19376.1.5.3.1.3.18)

40. **MAY** contain [0..1] **component** such that it (CONF:8790)

a. Conforms to [Subjective Section](#) (templateId: 2.16.840.1.113883.10.20.21.2.2)

41. **MAY** contain [0..1] **component** such that it (CONF:8784)

a. Conforms to [Vital Signs Section Entries Optional](#) (templateId: 2.16.840.1.113883.10.20.22.2.4)

42. **MAY** contain [0..1] **component** such that it (CONF:16806)
- a. Conforms to [Instructions Section](#) (templateId: 2.16.840.1.113883.10.20.22.2.45)
43. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250, R2.1=CONF:1198-5250)
44. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251, R2.1=CONF:1198-5251)
45. id **SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
46. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
47. If setId is present versionNumber **SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)
48. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)
49. **SHALL** include an Assessment and Plan Section, or an Assessment Section and a Plan Section (CONF:8704)
50. **SHALL NOT** include an Assessment/Plan Section when an Assessment Section and a Plan of Care Section are present (CONF:10069)

Progress Note Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 infrastructure/
cda/CDA_SDTC.xsd">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.9"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="208103039"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <title>org.openhealthtools.mdht.uml.cda.consol.impl. Progress Note Impl</
title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
codeSystemName="ConfidentialityCode"/>
  <languageCode code="Code for languageCode"/>
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    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <documentationOf>
    <serviceEvent classCode="PCPR">
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      <effectiveTime>
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        <high value="2019"/>
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  <componentOf>
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    </encompassingEncounter>
  </componentOf>
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    <code code="84184006"/>
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    <templateId root="2.16.840.1.113883.10.20.22.4.42"/>
    <id root="MDHT" extension="1761788184"/>
    <code code="875948036"/>
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    <effectiveTime value="20190227"/>
    <consumable/>
  </substanceAdministration>
</entry>
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    <templateId root="2.16.840.1.113883.10.20.22.4.43"/>
    <id root="MDHT" extension="1051555331"/>
    <code code="1598259917"/>
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codeSystemName="SNOMEDCT"/>
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    <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
    <title>ASSESSMENT AND PLAN</title>
    <text>RlOmkbPGF crmhx znIxkp nYxFFgHD GGQIi NoBXwBDLJ AfUiZ
XDlKPcM HGdBMucPG PALMGiei OINgAXiv hRjXSdwN cqwzJUC
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    <id root="MDHT" extension="1198583442"/>
    <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Allergies, adverse reactions, alerts"/>
    <title>Allergies, adverse reactions, alerts</title>
    <text>ppSvQ BmUZSFC cbokP wYdor jTwQdEa jXqlbMEo bBQrJ VJavK
gHWvo ZdkwG sDYzTbbUO foVfl tTgOin IfBGi fotCFwX cwlhXa ANXBKrg GnoBhKTt
AZSCLFLye OyCdVPPjd IepWxOQb SMIApX MLadB IYoDk POXfl weKpP xoBqJ StQew
BlldDef BYwvHGlk rdGcWTD OQYBhBG rIeKjSXRv aYvpDR kqhiig aUjEVYKeb kMsduTioH
xMeNfd iHPikJC fgGSVg eEKIAMLGd UxolwB ARDLgEiPm CEDvO
</text>
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      <templateId root="2.16.840.1.113883.10.20.24.3.90"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
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    <code code="10154-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="CHIEF COMPLAINT"/>
    <title>CHIEF COMPLAINT</title>
    <text>sPOIv rbwjDYFq xRNPcpc XvZlSRcb xjoEJWq ZijXdXRR QoyXc
IIyowwEU crBhCXccr zpmJV wIMdGFSxE JSodnm aeARfNVC HZylP JeoRzJ ApwExldj
XiGwQ olcMqzm FTQKmpSvz pJoUMKvEi wqwZg aXUmFbIBJ kpbDzfez oWxwxhrkr
LRZgloZ jrUSiDn XPSEiAn MmADvEkJU NkMlDbCrj vQBGGBDaK XpOgM coWiQs noNqp
DpRcB rKTZcoD hcJnlRZ wYyCF yxAea MISEhs SKPSV cXCSUHI DgWOxzt OQHjqdOW
RJNVUxx lzWVO gEgRq PbWGDu bKuwwc vMETijKSS hbCAvdqB atCMRJ pOJbnE
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    <id root="MDHT" extension="2032038996"/>
    <code code="62387-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
    <title>TEXT FOR TITLE</title>
    <text>ENMBjy LkaeVtb YNjaNIJcG KaQdAkjx NvJETyAvf lZlFMhZu
dhladCdo Khfeav gtgAOvyt bqmALXoH GmcFL OgnSq iZCNu WToSzqDs GXsgWAgw
RdroRGcj IjFpWfVc DpCXyl NXxGAMJI fAayR
JFqNuNO WsvnaEd hetYEXa YPmWmHDQc avuEskQx ePfcVN kBerYEqW BOBFK RashSYg
PZdZH xbzoLytz EXylNG pwcB
SAnufrlO mjrHV GGYoOwc hsWKW QxAKLjFx PdyAU wAMjGpNNo suvYseUb jRBNX pPhJgs
FiXsNJEZ CxNIZ pEgYxC CRBbnZ XHedWdIg
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codeSystemName="LOINC" displayName="History of medication use"/>
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<text>yjDMXxS ufZLNz DCHqLJ UEnGc nzwvoLcRk cUxMkAxTV BOfIOsSom
yFFBz fbpopqEuJ RHofolsG XEfrLWwzg OEQUpWSia lNbenfhp CPkomB JsJPO iCtiXe
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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    <performer/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT"/>
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codeSystemName="LOINC" displayName="Objective"/>
    <title>Objective</title>
    <text>Navcp gSiaN YJIVA naKEmFe IjQswfwT LhhJSg jMCKsX bbgkvS
kiFfskVy EavoIwJ hvlcTx mIeEYN hHwHpMSHo Kqzwb hwntqnIMO yqJqD wIiPeBtz
guxluOMi HyIJSWczc MfXoomI BeOmFp GFzsYlXn eGOvlhe mLqfn CSUckMm lewwgBm
AJbya gVLVVVkg xUvzR JouZNss tNxmodvGS xpocujTn nzVTN xDEnhm xStUXuXB
WGPjSHK OYpCOVE jxxuXp JMuUji xwlbfx UmCwJ ekqRL
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codeSystemName="LOINC" displayName="PHYSICAL EXAMINATION"/>
    <title>PHYSICAL EXAMINATION</title>
    <text>JjUYSHK KuXwNKpw goYQBTg hnMIRSdW oNonybZF AEQaRTVqf
cdegjWjA rAkrdOb BQrstn awYJlM nXJOYQU iWGNx FnxuRTDm LbJGRcvkq aIiKTX
SMGIPToZK iZiQohUA bXJkaG QVmVqGt WIjMwapCX mPjhNNMa LMUWyj uJtEvUTlQ
HqrsGSS XYISGKrM lqIaiudAH FAlnOo zumzVBOb eVBPV jEsQCAfn LjotYsHux eVLlA
ZmZMEVqM rJmTK zAfdS VYMWZ qWHJpwzD skBCIbm bPKcEIm oNzkdz vWsYO pAbMzx
rPNBQ hXZfs afWNw tMDyBOu WfHXlxb BxcfIc mqTOp SdxYjXOE PCYIgx NXeCKn
JRStueKO IEDsQV nDXBw zQqwzHJ Pmcirpif uzsWyC
CDhVToPox LyDDUyTag XPmfp pfrwd oVgHg mbLgnHnBP JXmmvSV SZtZlGw kcPPtyG
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codeSystemName="HL7ActCode" displayName="Assertion"/>
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      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <entryRelationship typeCode="COMP"/>
      <entryRelationship typeCode="COMP"/>
      <entryRelationship typeCode="COMP"/>
    </observation>
  </entry>
</entry>
  <observation classCode="OBS" moodCode="EVN">

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<typeId root="2.16.840.1.113883.1.3"/>
<templateId root="2.16.840.1.113883.10.20.22.4.76"/>
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<id root="MDHT" extension="528240911"/>
<code code="2264892003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="number of pressure ulcers"/>
<text>Text Value</text>
<statusCode code="completed"/>
<effectiveTime>
  <low value="2019"/>
  <high value="2019"/>
</effectiveTime>
<languageCode code="Code forlanguageCode"/>
<author/>
<entryRelationship typeCode="SUBJ"/>
</observation>
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<entry>
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    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.77"/>
    <id root="MDHT" extension="1693332385"/>
    <code code="420905001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Highest Pressure Ulcer Stage"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </observation>
</entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.5"/>
    <id root="MDHT" extension="557731510"/>
    <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Problem List"/>
    <title>Problem List</title>
    <text>nSZxil PsXKhi fzxApATK gZPtfnIk irRqwq cbcTlTeWc OaSzpe
VpBfpLNDb MPPjXLQFr nfMeMESp VXnGCPV TzASXjgq JpRws lKeDbpP oaEIYVh zJNnjU
cmPMc BXEBjL OEMjw YlfaLOmPH UwiHEKb FViHRYwE BgcccTNP GMnpwB qmnXsM
mLurzShXB VRftV fFfXlRmw RGPFX akIsDxmrJ TRzCwq
ZktjZ GVoyTaDpG rpezPJ oxlfAYxu JXREnt HhIEheSPx tkGHXy TsbHwxppy xUzzHd
dEMsal FJgJrL ZzyQEDjB oErlF rAqtXXKtd IYRpGLXV AfaRbjC uaeFLSZCm zHROgBjZ
rZxvh igPMGhFBl FTIJsGK FugAI XsJnY etezs PBLTszpz RSREE PPPmT oFsfOT
YTAIyy lWdfEgkL DTYOMFotK GvlSkTtI wdqOnezT mGzrRyg GLuhyHD CYYfZyJ rmpbdaD
RwgPolGvM KKrNRhZj FJrBz ALloM nYDVWuCO dxbgZD ZzBjY YqKhLNaO zehfCGItF
IbqwnAGVA qarHQ SkDdvzi mxvAZKnU
PfNpH pJxFvJEkS dGWTR ZSszVRZe ETCuo WbIrjatSx wZvgvJz wErojjf iwJYPI JnBhgJ
TcUlQYX sFCds vobGdd PtyOrN KMmJOHoBW tCvWsCxzv wyUKLEA
</text>
    <confidentialityCode code="1120253755"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <act classCode="ACT" moodCode="EVN">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.3"/>
    <id root="MDHT" extension="139687339"/>
    <code code="CONC" codeSystem="2.16.840.1.113883.5.6"
codeSystemName="HL7ActClass" displayName="Concern"/>

```

```

    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </act>
</entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
    <id root="MDHT" extension="970144945"/>
    <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
laboratory data"/>
    <title>Relevant diagnostic tests and/or laboratory data</title>
    <text>kPHDmlyOu JvMfovIJ bhHqqqVw ewjJxkj ZQzeIwnNp lyaYS yIZhWc
IIenGBW bIBee QXcjJKjy rFQKt AUPzTlqbA JGQKgxzCf JOlBzaPU vjBkS reaJk
mfvKJD keYVQ hNVcrRt zUEuXE RdMEeyv zJnUR AgCbAbEr htRBTH IMLuqs UodnJMr
qTnSW KXobnh sMBLe REFQkkj ErdQIHgC rTrsnhf XkGgPkQ bYRQog AxuMVXr khDyvqyul
wGNqWE FAIBBwMrB epbzsscZ DGzTQpiP XgQfKAz zurfmZ ReaRBNSFc
IqSjJABV wdQnaZuF pLYdBaJW eElLycKae qGKKH ZTiLqX SEasPAeN krSUKOzCx
fzNgYBMpJ MGKYqie WCDyBI Ryksalgl IOXvWGai orjzRb iOMGEjcT kVFkH fHIRWK
tEHPxXhKW FOcMtUcQv gZcVcsD zcwOWw mgTguqRJ EureEfG EiYUNt quPpbob CpgPmh
ctnXYi kqXlZfU PgyUB qnAEnBJvI cTxQwqAw EctoHlpmh jzCuYz NdleNQ taEoIlxy
RLNQB ywOcu tGuqpDcVo bLJry zsKASJ AzQaVF TApRe GTrxA jauufwmz
</text>
    <confidentialityCode code="2088998890"/>
    <languageCode code="Code forlanguageCode"/>
    <entry>
      <organizer moodCode="EVN">
        <typeId root="2.16.840.1.113883.1.3"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
        <id root="MDHT" extension="1471586557"/>
        <code code="1006928394"/>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <component>
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
          </observation>
        </component>
      </organizer>
    </entry>
  </section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"/>

```

```

<id root="MDHT" extension="911616171"/>
<code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
<title>REVIEW OF SYSTEMS</title>
<text>oQiWB ZGNxqhdDx KxFdPk fvCexck GtfYqe VoinPE UfKVXY
KnIduecq ibsZnhVlw IbhdSgjr SjrjFIM OYMLRca JNpdPHbv QIIls rYFwwKI hLGliEJS
xLhrjrPjs bPRSyog tWoBAK muzIRQ zSaYm flmhFgf lGZcbM xhEsaR VanjAtFD
LusdCo sGYTaAFbE lTxwz KnMcz qyKcSnG MVuHuAtP DaheKgs fvkGU AFLJeNQ ksflCh
UsaVTalc gRrfvst TknnPcRe pyqgv HeUiJwvcP DHVDb qlsmHp nTiWv ozQEtedRj
QUsAa iSIdNq DrimZczhe xSTCUzdh VZYiu aKIEoWV dgWGLleT OKuCo MLwXS WSocinP
OkqQi
zRvmTTDU hnMndM BcXXzbZ NpOyj hQyqjPis BYtsUpeOK qRXtc aluVwpI UiIfTD
wlvLGHmL HKLdKLqHP mZCZBSSrn
</text>
<confidentialityCode code="375290166"/>
<languageCode code="Code forlanguageCode"/>
</section>
</component>
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<typeId root="2.16.840.1.113883.1.3"/>
<templateId root="2.16.840.1.113883.10.20.21.2.2"/>
<id root="MDHT" extension="1480991815"/>
<code code="61150-9" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Subjective"/>
<title>Subjective</title>
<text>HwRZBO jtLTZmWH YTWbh mQtUR iLJDDl ElWjwGPpg rukzQwPp XZaJuE
AUmmSijzB OnYHgXUEL qDlydkJq nOfWqr lYPapU
</text>
<confidentialityCode code="1916491654"/>
<languageCode code="Code forlanguageCode"/>
</section>
</component>
<component>
<section>
<typeId root="2.16.840.1.113883.1.3"/>
<templateId root="2.16.840.1.113883.10.20.22.2.4"/>
<id root="MDHT" extension="1805302154"/>
<code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Vital Signs"/>
<title>Vital Signs</title>
<text>uXmCFuo deWiRm ZtmqHtHYK YTJDIVKVR rdjsM xfoQfGGsa wiRXKpf
CSzdiX qhpEdfNX gOrmApM pwdQA yVTlHJ
pdtrX ofMxhLolb IHjHdEU TmnER JDTSxsN YUMocNiP lCtmzLL OvESvxNBv KQQfl
szTlrxYsw ozDFiOFr oEjnySnWZ IhDJAMmKY IXVrPpJ VVipizReS KWISc VbRmOzt
mKoiTZv PYuap RDxghUyz OkjZum uqfjPJZ blSoKgO zdAatFff BtiHWf ustSIZPwJ
zqabDoCeR OFRRZx HF1PSWWk ovYUp FMxdZ wPdRMrS cjHgsFVs LoEVZI upyUeSpZ
MPEBm CDcgbPv umsZY dYZgPXDly qKjtiN WUeuH nsoKsRRxA LZFooZT yjtTyvQ
aWEIGUCtj OHHhkwwY QsJGxsE ABTPisjPA oTwpeAhCo
</text>
<confidentialityCode code="759790242"/>
<languageCode code="Code forlanguageCode"/>
<entry>
<organizer classCode="CLUSTER" moodCode="EVN">
<typeId root="2.16.840.1.113883.1.3"/>
<templateId root="2.16.840.1.113883.10.20.22.4.26"/>
<id root="MDHT" extension="606942328"/>
<code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
<statusCode code="completed"/>
<effectiveTime>
<low value="2019"/>
<high value="2019"/>
</effectiveTime>

```

```

      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
          <code codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
          <statusCode code="completed"/>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
</component>
<component>
  <section>
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.45"/>
    <id root="MDHT" extension="317754882"/>
    <code code="69730-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Instructions"/>
    <title>Instructions</title>
    <text>pSvoiq nGxwFI DtZvUSdU oldZB KwrSG VoVUut IqAco DRPDZHG
OuLNl wocXHLk nTmizyJL JTKsfdR oFbTjT duTnLUde QjkhCZb tdWZDl SmKRO iQoMM
hbBHLZ OCYgJKcr qvAQxwU fMHsJFG GqWigtO tTzMDNfLE ZkWAjO pxJWaRir upAyi
QIdUjbzq GPUteeUz ahhge fycKSBh zAGwfftWL eyuQfne TiUjlpL iIWhemghW mIRBmKA
pRKOBrmwl kijSMULv OLBLEV ZFwkJrsdq
ZOdogA hMvSubSLC flqQPQM BZCeBz ejeyWURmm rjXyvJrv PEbvqQ ejDAXoLE XUdHSEF
nmwFGiFrF lqEAmmxS fHhMNKqdl rxYuNnjR oXodaN esXwl LOFia yyGec thyabU
lrhZjNuw JSWYfGOy LHVRgX QpnwQ lMeWWJlWP bgiWbAMhv FbRSH OxsBGt xxTcg
UJfipIa mygjrPqB VeXmxWC JSRwr cuxlctxb SoJQhbx KcICJ orPypl PNoHl BuVlURZc
HLxXFz evicsYrAo fbFJJUJja bEKShM kEXBind UEyJdrU NPCnk XDlFhZAx PVPWWZrD
xSyREkeJ YYSyfHPy DsXHLg hsenwiwNU yeyyr FCOafa
ideIwUVV rHBLfDv Astrtr EiYqoPy BGvtYyEF TgSlNmsJJ JyIXx PXqTlm HpRbb yafNK
ZMJAft WBKkuc yKyAqWk KwKpWO IqWljmZy sCIPyb kfSGa cpjTTWCV MAamT NickpI
ThDsF OChkmdt cYCxaGQA zTrAKTZOq
ATPbTrFXO KMLzav nwKxClPK EkwxZmCli mHnMSrdg owotkcO xtEDXSR aPmwp KSNAqgr
mzWpTl llugbQrVi ZqtyDpCno DTVwun cRtwFHFc VjdBPP DGBVbE mYSvqyQSl kRkjYDT
pJUQYaVi ekExzy NeYZoofuK iCBialO YkxogAja quNVoq GeYlYKO dzidXzNi yKXxQP
ZEJDOK flkDU ArDfz FyunnOfyk gvpPoz AiHVSuKqW cAeniCQ CdQEjVJbB RpAYoO
RIUnPDzNs wQhME NGtXQg
</text>
    <confidentialityCode code="1661428552"/>
    <languageCode code="Code forlanguageCode"/>
  </entry>
  <act classCode="ACT" moodCode="INT">
    <typeId root="2.16.840.1.113883.1.3"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1839856792"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <languageCode code="Code forlanguageCode"/>
  </act>
</entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>

```


Unstructured Document

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.22.1.10]

An unstructured document is a document which is used when the patient record is captured in an unstructured format that is encapsulated within an image file or as unstructured text in an electronic file such as a word processing or Portable Document Format (PDF) document. There is a need to raise the level of interoperability for these documents to provide full access to the longitudinal patient record across a continuum of care. Until this gap is addressed, image and multi-media files will continue to be a portion of the patient record that remains difficult to access and share with all participants in a patient's care. The Unstructured Document type addresses this gap by providing consistent guidance on the use of CDA for such documents. 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 subsections which 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 implementation guide 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, please review the appendix on XDS-SD and US Realm Clinical Document Header Comparison and ensure that your documents at a minimum conform to all the SHALL constraints from either specification .

Unstructured Document Header Constraints

Unstructured Document Body Constraints

1. SHALL contain exactly one [1..1] **templateId** (CONF:7710, CONF:10054) such that it
 - a. SHALL contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.10"
2. SHALL conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. SHALL contain exactly one [1..1] **recordTarget** such that it (CONF:7643)
 - a. SHALL contain exactly one [1..1] **patientRole** such that it
 1. SHALL contain exactly one [1..1] **id** (CONF:7643)
4. SHALL contain exactly one [1..1] **author** such that it (CONF:7640)
 - a. SHALL contain exactly one [1..1] **assignedAuthor** such that it (CONF:7640)
 1. SHALL contain exactly one [1..1] **addr** (CONF:7641)
 2. SHALL contain exactly one [1..1] **telecom** (CONF:7642)
5. SHALL contain exactly one [1..1] **component** such that it (CONF:14097)
6. SHALL contain exactly one [1..1] **custodian** such that it (CONF:7645)
 - a. SHALL contain exactly one [1..1] **assignedCustodian** such that it (CONF:7645)
 1. SHALL contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:7645)
 - a. SHALL contain exactly one [1..1] **addr** (CONF:7651)
 - b. SHALL contain exactly one [1..1] **id** (CONF:7648)
 - c. SHALL contain exactly one [1..1] **name** (CONF:7649)
 - d. SHALL contain exactly one [1..1] **telecom** (CONF:7650)
1. SHALL conform to [General Header Constraints](#) template (templateId: 2.16.840.1.113883.10.20.22.1.1)
2. SHALL contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
3. SHALL contain exactly one [1..1] **typeId** (CONF:5361, R2.1=CONF:1198-5361)

4. **SHALL** contain exactly one [1..1] **id** (CONF:5363, R2.1=CONF:1198-5363)
5. **SHALL** contain exactly one [1..1] **code** (CONF:5253, R2.1=CONF:1198-5253)
6. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256, R2.1=CONF:1198-5256)

Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA

8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** 2010-04-21 (CONF:5259, R2.1=CONF:1198-5259)
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372, R2.1=CONF:1198-5372, DSTU:806)
10. **MAY** contain zero or one [0..1] **setId** (CONF:5261, R2.1=CONF:1198-5261)
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264, R2.1=CONF:1198-5264)
12. **SHALL** contain at least one [1..*] **recordTarget** such that it (CONF:5266)

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

- a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:5268)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5268, R2.1=CONF:1198-5268)
 2. **SHALL** contain at least one [1..*] **addr** (CONF:5271, R2.1=CONF:1198-5271)
 3. **SHALL** contain at least one [1..*] **telecom** (CONF:5280, R2.1=CONF:1198-5280)
 4. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:1198-5283)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5284, CONF:10411, R2.1=CONF:1198-5284, DSTU:808)
 - b. **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:6394, R2.1=CONF:1198-6394)
 - c. **SHALL** contain exactly one [1..1] **birthTime** (CONF:5298)
 - d. **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet HL7 Marital Status 2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:5303, R2.1=CONF:1198-5303)
 - e. **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet HL7 Religious Affiliation 2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:5317, R2.1=CONF:1198-5317)
 - f. **SHOULD** contain zero or one [0..1] **raceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5322)
 - g. **MAY** contain zero or more [0..*] **sdtcRaceCode**, which **SHALL** be selected from ValueSet Race 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263, R2.1=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.

- h. **MAY** contain zero or one [0..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet Ethnicity Value Set 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:5323)
- i. **MAY** contain zero or more [0..*] **guardian** such that it (CONF:5325)
 - Ordering List Number 5** to or one [0..1] **code** (CONF:5326)
 - Ordering List Number 5** to or more [0..*] **addr** (CONF:5359, CONF:10413, R2.1=CONF:1198-5359)
 - Ordering List Number 5** to or more [0..*] **telecom**
 - Ordering List Number 5** to one [1..1] **guardianPerson** such that it (CONF:5385, R2.1=CONF:1198-5385)
 - Ordering List Number 6** to one [1..*] **name** (CONF:5386, R2.1=CONF:1198-5386)
 - Ordering List Number 6** **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414, R2.1=CONF:1198-5386)
 - Ordering List Number 5** present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 **DYNAMIC** or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 **DYNAMIC** (CONF:5326)
- j. **MAY** contain zero or one [0..1] **birthplace** such that it (CONF:5395)
 - Ordering List Number 5** to one [1..1] **place** such that it (CONF:5396)
 - Ordering List Number 6** to one [1..1] **addr** (CONF:5397, R2.1=CONF:1198-5397)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet Country 2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404, R2.1=CONF:1198-5404, DSTU:737)
 - Ordering List Number 6** **SHOULD** contain zero or one [0..1] **postalCode**, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:5403, R2.1=CONF:1198-5403)
 - Ordering List Number 6** **SHOULD** 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:5402, DSTU:812)
- k. **SHOULD** contain zero or more [0..*] **languageCommunication** such that it (CONF:5406)
 - Ordering List Number 5** to one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407, DSTU:806)
 - Ordering List Number 5** to one [0..1] **modeCode**, which **SHALL** be selected from ValueSet HL7 LanguageAbilityMode 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409, R2.1=CONF:1198-5409)
 - Ordering List Number 5** to or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet LanguageAbilityProficiency 2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:9965, R2.1=CONF:1198-9965)
 - Ordering List Number 5** to one [0..1] **preferenceInd** (CONF:5414)
- l. If *sdtc:raceCode* is present, then the patient **SHALL** contain [1..1] **raceCode** (CONF:31347, R2.1=CONF:1198-31347)
- 5. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)
 - b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
 - c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
 - d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
 - e. The **id** **SHOULD** include zero or one [0..1] **id** where **id/@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996, R2.1=CONF:1198-16820)

13. **MAY** contain zero or one [0..1] **componentOf** such that it (CONF:9955)

a. **SHALL** contain exactly one [1..1] **encompassingEncounter** such that it (CONF:9956)

1. **SHALL** contain at least one [1..*] **id** (CONF:9959, R2.1=CONF:1198-9959)

2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:9958, R2.1=CONF:1198-9958)

14. **SHALL** contain at least one [1..*] **author** such that it (CONF:5444)

a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

*The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDED)
(2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

b. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)

1. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)

2. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)

5. contain zero or one [0..1] **assignedAuthoringDevice** such that it

a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)

b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)

6. contain zero or one [0..1] **assignedPerson** such that it

a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)

7. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)

8. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)

15. **MAY** contain zero or one [0..1] **dataEnterer** such that it (CONF:5441)

a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5442)

1. **SHALL** contain at least one [1..*] **id** (CONF:5443, R2.1=CONF:1198-5443)

2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9944)

3. **SHALL** contain at least one [1..*] **addr** (CONF:5460, R2.1=CONF:1198-5460)

4. **SHALL** contain at least one [1..*] **telecom** (CONF:5466, R2.1=CONF:1198-5466)

5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5469, R2.1=CONF:1198-5469)

a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5470)

6. id **SHOULD** include zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821, R2.1=CONF:1198-16821)

16. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:5519)

- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)
- 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)
 - b. **SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)
 - e. The id **SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

17. **MAY** contain zero or more [0..*] **informationRecipient** such that it (CONF:5565)

- a. **SHALL** contain exactly one [1..1] **intendedRecipient** such that it (CONF:5566)
 - 1. **MAY** contain zero or one [0..1] **informationRecipient** such that it (CONF:5568, R2.1=CONF:1198-5567)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5470, R2.1=CONF:1198-5568)
 - 2. **MAY** contain zero or one [0..1] **receivedOrganization** such that it (CONF:5577, R2.1=CONF:1198-5577)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:5578, R2.1=CONF:1198-5578)

18. **SHOULD** contain zero or one [0..1] **legalAuthenticator** such that it (CONF:5579)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5580, R2.1=CONF:1198-5580)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5583, R2.1=CONF:1198-5583)/**@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5584, R2.1=CONF:1198-5584)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5585, R2.1=CONF:1198-5585)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:5586, R2.1=CONF:1198-5586)
 - 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:17000, R2.1=CONF:1198-17000)
 - 3. **SHALL** contain at least one [1..*] **addr** (CONF:5589, R2.1=CONF:1198-5589)
 - 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5595, R2.1=CONF:1198-5595)
 - 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5597, R2.1=CONF:1198-5597)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5598, R2.1=CONF:1198-5598)
 - 6. The id **MAY** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16823, R2.1=CONF:1198-16823)

19. **MAY** contain zero or more [0..*] **authenticator** such that it (CONF:5607)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5608, R2.1=CONF:1198-5608)
- b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:5610, R2.1=CONF:1198-5610)/@code="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5611, R2.1=CONF:1198-5611)
- c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:5612, R2.1=CONF:1198-5612)
 1. **SHALL** contain at least one [1..*] **id** (CONF:5613, R2.1=CONF:1198-5613)
 2. **MAY** contain zero or one [0..1] **code** (CONF:16825, R2.1=CONF:1198-16825), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826, R2.1=CONF:1198-16826)
 3. **SHALL** contain at least one [1..*] **addr** (CONF:5616, R2.1=CONF:1198-5616)
 4. **SHALL** contain at least one [1..*] **telecom** (CONF:5622, R2.1=CONF:1198-5622)
 5. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:5624, R2.1=CONF:1198-5624)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:5625, R2.1=CONF:1198-5625)
 6. The id **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16824, R2.1=CONF:1198-16824)

20. **MAY** contain zero or more [0..*] **informant** such that it (CONF:8001)

- a. contain zero or one [0..1] **assignedEntity** such that it
 1. **SHALL** contain at least one [1..*] **id** (CONF:9945, R2.1=CONF:1198-9945)
 2. **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
 3. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 4. **SHALL** contain exactly one [1..1] **assignedPerson** such that it (CONF:8221, R2.1=CONF:1198-8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
 5. The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9946, R2.1=CONF:1198-9946)
- b. contain zero or one [0..1] **relatedEntity** such that it
 1. **SHOULD** contain zero or more [0..*] **addr** (CONF:8220)
 2. **SHALL** contain exactly one [1..1] **relatedPerson** such that it (CONF:8221)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8222, CONF:10420, R2.1=CONF:1198-8222)
- c. **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

21. **MAY** contain zero or more [0..*] **participant** such that it (CONF:10003)

- a. **MAY** contain zero or one [0..1] **time** (CONF:10004, R2.1=CONF:1198-10004)
- b. Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity. (CONF:10006)
- c. Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30. (CONF:10007)

22. **MAY** contain zero or more [0..*] **inFulfillmentOf** such that it (CONF:9952)

- a. **SHALL** contain exactly one [1..1] **order** such that it (CONF:9953, R2.1=CONF:1198-9953)
 1. **SHALL** contain at least one [1..*] **id** (CONF:9954, R2.1=CONF:1198-9954)

23. **MAY** contain zero or more [0..*] **documentationOf** such that it (CONF:14835)
- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:14836)
 - 1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:14837, R2.1=CONF:1198-14837)
 - 2. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:14839)
 - a. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:14840, R2.1=CONF:1198-14840)
 - b. **MAY** contain zero or one [0..1] **functionCode** (CONF:16818), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.5.88 ParticipationFunction) (CONF:16819)
 - c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:14841)
 - OrderList Number 5: **SHALL** contain exactly one [1..*] **id** (CONF:14846, R2.1=CONF:1198-14846)
 - OrderList Number 5: **SHOULD** contain zero or one [0..1] **code** (CONF:14842), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:14843)
 - OrderList Number 5: **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:14847, R2.1=CONF:1198-14847)
 - 3. **effectiveTime SHALL** contain exactly one [1..1] **low** (CONF:14838, R2.1=CONF:1198-14838)
24. **MAY** contain zero or more [0..*] **authorization** such that it (CONF:16792)
- a. **SHALL** contain exactly one [1..1] **consent** such that it (CONF:16793, R2.1=CONF:1198-16793)
 - 1. **MAY** contain zero or more [0..*] **id** (CONF:16794, R2.1=CONF:1198-16794)
 - 2. **MAY** contain zero or one [0..1] **code** (CONF:16795, R2.1=CONF:1198-16795)
 - The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.*
 - 3. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797, R2.1=CONF:1198-16797)/
@code="completed" Completed (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798, R2.1=CONF:1198-16798)
25. **SHALL** contain exactly one [1..1] **recordTarget** such that it (CONF:7643)
- a. **SHALL** contain exactly one [1..1] **patientRole** such that it
 - 1. **SHALL** contain exactly one [1..1] **id** (CONF:7643)
26. **SHALL** contain exactly one [1..1] **author** such that it (CONF:7640)
- a. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:7640)
 - 1. **SHALL** contain exactly one [1..1] **addr** (CONF:7641)
 - 2. **SHALL** contain exactly one [1..1] **telecom** (CONF:7642)
27. **SHALL** contain exactly one [1..1] **component** such that it (CONF:14097)
28. **SHALL** contain exactly one [1..1] **custodian** such that it (CONF:7645)
- a. **SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:7645)
 - 1. **SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:7645)
 - a. **SHALL** contain exactly one [1..1] **addr** (CONF:7651)
 - b. **SHALL** contain exactly one [1..1] **id** (CONF:7648)
 - c. **SHALL** contain exactly one [1..1] **name** (CONF:7649)
 - d. **SHALL** contain exactly one [1..1] **telecom** (CONF:7650)
29. **typeId SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:5250, R2.1=CONF:1198-5250)
30. **typeId SHALL** contain exactly one [1..1] **@extension="POCD_HD000040"** (CONF:5251, R2.1=CONF:1198-5251)
31. **id SHALL** be a globally unique identifier for the document (CONF:9991, R2.1=CONF:1198-9991)
32. **code SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992, R2.1=CONF:1198-9992)
33. If **setId** is present **versionNumber SHALL** be present (CONF:6380, R2.1=CONF:1198-6380)

34. If versionNumber is present setId **SHALL** be present (CONF:6387, R2.1=CONF:1198-6387)

Unstructured Document Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 infrastructure/
cda/CDA_SDTC.xsd">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.10"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="40806447"/>
  <code code="1824331688"/>
  <title>org.openhealthtools.mdht.uml.cda.consol.impl. Unstructured Document
Impl</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
codeSystemName="ConfidentialityCode"/>
  <languageCode code="Code forlanguageCode"/>
  <setId root="MDHT" extension="8a2f004a-7d95-49a6-8465-b6a24e8c694f"/>
  <versionNumber value="1"/>
  <recordTarget>
    <patientRole>
      <id root="MDHT" extension="1727402070"/>
    </patientRole>
  </recordTarget>
  <author>
    <time/>
    <assignedAuthor>
      <id root="MDHT" extension="1050037609"/>
      <addr/>
      <telecom/>
    </assignedAuthor>
  </author>
  <custodian>
    <assignedCustodian>
      <representedCustodianOrganization/>
    </assignedCustodian>
  </custodian>
  <component/>
</ClinicalDocument>
```

Chapter

4

SECTION-LEVEL TEMPLATES

Topics:

- [Advance Directives Section](#)
- [Allergies Section](#)
- [Anesthesia Section](#)
- [Assessment And Plan Section](#)
- [Assessment Section](#)
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- Medical History Section
- Medications Administered Section
- Medications Section
- Objective Section
- Operative Note Fluid Section
- Operative Note Surgical Procedure Section
- Payers Section
- Physical Exam Section
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- Planned Procedure Section
- Postoperative Diagnosis Section
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- Procedures Section
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- Reason For Visit Section
- Results
- Review Of Systems Section
- Social History Section
- Subjective Section
- Surgical Drains Section
- Vital Signs

Advance Directives Section

This section contains data defining the patient's advance directives and any reference to supporting documentation. The most recent and up-to-date directives are required, if known, and should be listed in as much detail as possible. This section contains data such as the existence of living wills, healthcare proxies, and CPR and resuscitation status. If referenced documents are available, they can be included in the CCD exchange package. NOTE: The descriptions in this section differentiate between "advance directives" and "advance directive documents". The former are the directions whereas the latter are legal documents containing those directions. Thus, an advance directive might be "no cardiopulmonary resuscitation", and this directive might be stated in a legal advance directive document.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.21]

The following constraints apply to a Advance Directives Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7928, CONF:10376) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.21"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15340)/**@code**="42348-3" *Advance Directives* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15342)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7930, R2.1=CONF:1198-7930)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7931, R2.1=CONF:1198-7931)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:7957, CONF:8800)
 - a. Conforms to [Advance Directive Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.48)

Required Entries

The following constraints apply to a Advance Directives Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8643, CONF:10377) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.21.1"
2. **SHALL** conform to [Advance Directives Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.21)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15343)/**@code**="42348-3" *Advance directives* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15344)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8645)
5. **SHALL** contain exactly one [1..1] **text** (CONF:8646)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:8647, CONF:8801)
 - a. Conforms to [Advance Directive Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.48)

Advance Directives Section Table

consol::AdvanceDirectivesSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.21]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15344	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 42348-3
title	1..1	SHALL	ST		
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.48]	1..*	SHALL	AdvanceDirectiveObservation	CONF:8647CONF:8801	

consol::AdvanceDirectivesSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.21]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
advanceDirectivesSection	0..1	MAY	AdvanceDirectivesSection	CONF:9455	
text	1..1	SHALL	StrucDocText	CONF:8646	

Advance Directives Section Sample

The following XML snippet is a sample for Advance Directives Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.21.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.21"/>
  <code code="42348-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Advance Directives"/>
  <title>Advance Directives</title>
  <text>HWBKguZ gouqz AneaY awzbKEGn sTfFjlJA bvgsbl byOATcm QCVJr mbelow
JhWMO zYOkYh TXhWVo rBcymqKff LnAlxhfLO ZLIUbIwpG
EFWDAJhYX diDhpAc kJNhoQ FroqiqvF FuTaz visWgoT eeFrDxJ OoYTryVM IuwNNlRW
EXRJcN hcwGcGx FUmmtNgIk zjHwIpWZ uetgwMXMg oaPMYD qYHLa mulQD DniWwho
EefLMap kCMSrkVYG poQHaNx ltADPj vqzQHlg lOKBg aeXQpZPp qRvnu yyBZaKYL
kjska nSKGpAfs zBqlM RoxITLwHX fAnTFNL eHTwyLC aZgyS aRYsAP RDpdx uNvAbsu
kDEgOaQl skxCYMr wnouYAch KZWGthMyg woUqZRnv oXwNC
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.48"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <participant typeCode="VRF">
        <time>
          <low value="2019"/>
          <high value="2019"/>
        </time>
        <participantRole/>
      </participant>
      <participant typeCode="CST">
        <participantRole classCode="AGNT"/>
      </participant>
      <reference typeCode="REFR">
        <externalDocument/>
      </reference>
    </observation>
  </entry>
</section>
```

Figure 5: Advance Directives Section Entries Optional example

Allergies Section

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) used to assure the safety of health care delivery. At a minimum, it should list currently active and any relevant historical allergies and adverse reactions.

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) used to assure the safety of health care delivery. At a minimum, it should list currently active and any relevant historical allergies and adverse reactions.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.6]

The following constraints apply to a Allergies Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7800, CONF:10378) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.6"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15345)/**@code**="48765-2" *Allergies, adverse reactions, alerts* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15346)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7802, R2.1=CONF:1198-7802)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7803, R2.1=CONF:1198-7803)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7804, CONF:7805)
 - a. Conforms to [Allergy Problem Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.30)

Required Entries

The following constraints apply to a Allergies Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7527, CONF:10379) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.6.1"
2. **SHALL** conform to [Allergies Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.6)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15349)/**@code**="48765-2" *Allergies, adverse reactions, alerts* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15350)
4. **SHALL** contain exactly one [1..1] **title** (CONF:7534)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7530)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:7531, CONF:7532)
 - a. Conforms to [Allergy Problem Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.30)

Allergies Section Table

consol::AllergiesSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.6]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15350	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 48765-2
title	1..1	SHALL	ST	CONF:7534	
allergiesSection	1..1	SHALL	AllergiesSection	CONF:9445	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.30]	1..*	SHALL	AllergyProblemAct	CONF:7531CONF:7532	
text	1..1	SHALL	StrucDocText	CONF:7530	

Allergies Section Sample

The following XML snippet is a sample for Allergies Section Entries Optional

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.6.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.6"/>
  <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Allergies, adverse reactions, alerts"/>
  <title>Allergies, adverse reactions, alerts</title>
  <text>LGBuwNTBN nyYKveRyy JTZvJglaK WuYuwkMeL sKAcyzj JyhvTCeL MKbHwjLiT
gnAcMuzTG XVfErv soaeFk sFGAkqq GRUGoCqB Tzzci LbFkvw hSQJQ RSXdmVCI
OGjJipgm lrnQhope YltrGQ qSdwVH dAePvViP CpOtb dtoyI pzHaJnZD gafkPynsP
FWpDigT RJKnUH
zyFKlqhLw rDCduKH iieKWqLm BeyOGgV XIWxs MqkvDyjf YuUGcbrK YHUSGDFh LTUAX
XiFZh FWdroprg yIotcW SCUgeor vILOKrRlT fsMZsYeG ZVplyDtyv vgMvOO HKGkgXrv
cxjSMco aRvIpbhSA DcArHgtCF vYELJtf AebyEb piCibWuAL udioHFiC jBawbybNd
rIIPBkBJG vJZSach OyNWnefc aKkPq UEJBj iuLnEHwrT uqTJqZCMF crqsD YDHODYF
CSXlEhB NChryTZp HCYgEPHcP xblYB lSrkdha fgpxWaMMX oLuQxt dQboPt kxHLiGAjI
sXhWMra VZcnpxx
YiFRxx hUXvHFsaf jilayPjj bedlckqCF aNLHmOLNK GOyXSON QQjWL RpNkMFPhN
QpyBU caELOzf SEfNRf lTqlH EFiyMJT xwRZLc MQguHr GkgeIPJZ tNYLeMW cudmrHuM
passhaH
fzASswlRX IsymAIT KxyIeO aSVCVDn VuHOLonSi qgrucwbf RXlhFZ lSFgP CiGWe
snmAxQa ozPwS yHILRW xFEaREa uAAcP QYHOBco qPSerrHJt RAldvib WrLuYWOI
RbASuVFWC PNOzBnL uEpYW voeIn yNcuttenl AoXvFyCm BEsxcHhHB oxcUSC VfLnC
ofaRHKxs YfOwdBmj jFycYJU puBYMmH ljbJTh opSxtMBzQ eSrrBNUOn gFOsdGt hLwuf
FuadTRti MENgB RlhLWn DFSpbNkrQ IxqVsgjY crVsHoiOV
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.30"/>
      <text>Text Value</text>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.7"/>
          <templateId root="2.16.840.1.113883.10.20.24.3.90"/>
          <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
          <participant typeCode="CSM"/>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
              <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.28"/>
              <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
        </entryRelationship>
      </act>
    </entryRelationship>
  </entry>

```

```

    </act>
  </entry>
</section>

```

Figure 6: Allergies Section Entries Optional example

Anesthesia Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.25]

The Anesthesia section briefly records the type of anesthesia (e.g., general or local) and may state the actual agent used. This may or may not be a subsection of the Procedure Description section. The full details of anesthesia are usually found in a separate Anesthesia Note.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8066, CONF:10380) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.25"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15351)/**@code**="59774-0" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15352)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8068, R2.0=CONF:1098-8068)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8069, R2.0=CONF:1098-8069)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8092)
 - a. Conforms to [Procedure Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.14)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8094)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

1. **SHALL** contain exactly one [1..1] **code** (CONF:15351)/**@code**="59774-0" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15352)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8068, R2.0=CONF:1098-8068)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8069, R2.0=CONF:1098-8069)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8092)
 - a. Conforms to [Procedure Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.14)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8094)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

Anesthesia Section Table

consol::AnesthesiaSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.25]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15352	LOINC 2.16.840.1.113883.6.1 59774-0
title	1..1	SHALL	ST	CONF:8068R2.0=CONF:1098-8068	
anesthesiaSection	1..1	SHALL	AnesthesiaSection	CONF:9883	
cda:entry/ cda:substanceAdministration[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.16]	0..*	MAY	MedicationActivity	CONF:8094	

consol::AnesthesiaSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.25]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
cda:entry/ cda:procedure[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.14]	0..*	MAY	ProcedureActivityProcedure	CONF:8092	
text	1..1	SHALL	StrucDocText	CONF:8069R2.0=CONF:1098-8069	

Anesthesia Section Sample

The following XML snippet is a sample for Anesthesia Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.25"/>
  <code code="59774-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
  <title>TEXT FOR TITLE</title>
  <text>Mjnpysjz FchMCLs VeugBGn MJqRMVyb vETxmVR gRPOpTPpI jcQJfuqt tJyPm
IEyIc jZhCzwyJ kIOfElfdG TTqEac JKBHDAvi XKvjRuKTV SzeVFi QQpMadU OaOmX
XJwFRisg ufvbthSMB kiqLPqauF EBdgpEE QCcLRpMj TRpwGPvG BgrvYjD tWaxE otHCCJ
YIwUl nnEMNUxrq gasap ZHqDtXu KGevik TglgLVO qzOENQq uPEkPqozP umLdg
</text>
  <entry>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <code code="1149552860"/>
      <text>Text Value</text>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <specimen>
        <specimenRole/>
      </specimen>
      <performer>
        <assignedEntity/>
      </performer>
      <entryRelationship typeCode="COMP" inversionInd="true">
        <encounter classCode="ENC" moodCode="EVN"/>
      </entryRelationship>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
      <entryRelationship>
        <substanceAdministration classCode="SBADM">
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
          <code code="1511054463"/>
          <text>Text Value</text>
          <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>

```

```

    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable/>
    <performer/>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</procedure>
</entry>
<entry>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <code code="346274228"/>
    <text>Text Value</text>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>

```

```

    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable>
      <manufacturedProduct classCode="MANU">
        <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      </manufacturedProduct>
    </consumable>
  </performer/>
  <entryRelationship>
    <supply classCode="SPLY" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      <code code="1520805029"/>
      <text>Text Value</text>
      <author/>
    </entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <statusCode code="completed"/>
    </act>
  </entryRelationship>
</supply>
</entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <code code="430570638"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>

```

```

    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </act>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <supply classCode="SPLY" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      <code code="857811634"/>
      <text>Text Value</text>
      <performer/>
      <entryRelationship>
        <supply classCode="SPLY" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
        </supply>
      </entryRelationship>
    </supply>
  </entryRelationship>
  <precondition typeCode="PRCN">
    <criterion>
      <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    </criterion>
  </precondition>
</substanceAdministration>
</entry>
</section>

```

Figure 7: Anesthesia Section example

Assessment And Plan Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.9]

The Assessment and Plan sections may be combined or separated to meet local policy requirements. The Assessment and Plan section represents both the clinician's conclusions and working assumptions that will guide treatment of the patient (see Assessment Section above) and pending orders, interventions, encounters, services, and procedures for the patient (see Plan of Care Section below).

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7705, CONF:10381) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.9"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15353)/**@code**="51847-2" *ASSESSMENT AND PLAN* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15354)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7707, R2.0=CONF:1098-7707)
4. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:8798)
 - a. Conforms to [Plan Of Care Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.39)

1. **SHALL** contain exactly one [1..1] **code** (CONF:15353)/@code="51847-2" *ASSESSMENT AND PLAN* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15354)
2. **SHALL** contain exactly one [1..1] **text** (CONF:7707, R2.0=CONF:1098-7707)
3. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8798)
 - a. Conforms to [Plan Of Care Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.39)

Assessment And Plan Section Table

consol::AssessmentAndPlanSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.9]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15354	LOINC 2.16.840.1.113883.6.1 51847-2
assessmentAndPlanSection	0..1	MAY	AssessmentAndPlanSection	CONF:9491	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.39]	0..*	MAY	PlanOfCareActivityAct	CONF:8798	
text	1..1	SHALL	StrucDocText	CONF:7707R2.0=CONF:1098-7707	

Assessment And Plan Section Sample

The following XML snippet is a sample for Assessment And Plan Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
  <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
  <text>BFgiVH onrdb SzBzy UBlrvHgSS TfnFa XwSBMouz fpXBR IRkps qkniSJeSH
  JMUJzWw PppHxw qkSkwEWZ hrQaTaK CQjbVyNDq KKVVKc JUePPeqMl qAVFCmNm
  pHHnKThBn YfWwdDDT ysllM XtFmLNWe igYtvrVF vMLrNA NfilGwiZs vtRTX PdGWff
  LbUkDf zcNxPko AJsqeqxhT nfuztY MHXRzNdC vGpAqPf GBdvrVr UaRxov TohAfD
  vDSZoJHGN mRgEaxOii DFncrnpC nOztrc BHcViftTf InNAAza kJIRHuAlz
  MftNPOL UtQAkq BeGBKGPQP psiYJe zhZjxa qBwHNLi FGYql wpoKynU yQkJDW kExnhT
  nQQEtXc fUVQuks GegAjJ xWaeW
</text>
  <entry>
    <act classCode="ACT">
      <templateId root="2.16.840.1.113883.10.20.22.4.39"/>
      <code code="1491718186"/>
      <text>Text Value</text>
    </act>
  </entry>
</section>
```

Figure 8: Assessment And Plan Section example

Assessment Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.8]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7711, CONF:10382) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.8"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:14757)/**@code**="51848-0" *Assessments* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14758)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7713)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:16774)
1. **SHALL** contain exactly one [1..1] **code** (CONF:14757)/**@code**="51848-0" *Assessments* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14758)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:16774)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7713)

Assessment Section Table

consol::AssessmentSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.8]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:14758	LOINC 2.16.840.1.113883.6.1 51848-0
title	1..1	SHALL	ST	CONF:16774	
assessmentSection	0..1	MAY	AssessmentSection	CONF:9487	
text	1..1	SHALL	StrucDocText	CONF:7713	

Assessment Section Sample

The following XML snippet is a sample for Assessment Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.8"/>
  <code code="51848-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Assessments"/>
  <title>Assessments</title>
  <text>askxE AbHkpVh zvOBnY jJVUD vPnUeh cnwkr SLYPv QxIAhfZx KznaCs tj1PV
loGbSIAuu uIajpQ KfsnNNh rhOzDN kSdNFrrJ PMzsOe rjtMJWCm rwsKz Wckzpf
NJFQEW ECZDYtecQ hSShyfss FFhCpna tiVhBK FayMd
ryPPQVq DuaCN ZjCDjvir NRXPghA vHMuH nVeJtaH TJmbmGVA xJFfLtpH qfZALIKH
hAnBttVWi STuLW ExLYNn EGsfh ZNVzsx CXkQOes PELreXO RUEeE PcGlvG DaYYIhA
IhAiGJ UyRuMwciW TdRIhoe ccYCeTlR RdNCENiRa
</text>
</section>
```

Figure 9: Assessment Section example

Chief Complaint And Reason For Visit Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.13]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7840, CONF:10383) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.13"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15449)/**@code**="46239-0" *Chief Complaint and Reason for Visit* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15450)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7843)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:7842)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15449)/**@code**="46239-0" *Chief Complaint and Reason for Visit* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15450)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7842)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7843)

Chief Complaint And Reason For Visit Section Table

consol::ChiefComplaintAndReasonForVisitSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.13]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15450	LOINC 2.16.840.1.113883.6.1 46239-0
title	1..1	SHALL	ST	CONF:7842	
chiefComplaintAndReasonForVisitSection	1..1	MAY	ChiefComplaintAndReasonForVisitSection	CONF:7842	
text	1..1	SHALL	StrucDocText	CONF:7843	

Chief Complaint And Reason For Visit Section Sample

The following XML snippet is a sample for Chief Complaint And Reason For Visit Section

```
<section xmlns="urn:hl7-org:v3">
  <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 and Reason for Visit</title>
  <text>nZBkvbj gLiWFGsjX xPWiqNimM LCSBDRA s jNLtYgQ yqDTMqZq gxnHLZO
TJyOVrJ cGXQtZEd KkAhfq qPOJDNsHa lScLEsv sAwUS nmBrzbLc njyDoeV zDzPn
LntiKCXH EGLAtt jRGjhd CGuBuNNy oSbus DzpgK BsKyIR sCyAU BoJOLSM lPgjYA
guRCV yMRcXHvtK CkZcf cDvLIKEMF PLmMeXV LMSPuGpYO iFoyI CTZQRDp
SkFIpvr AqfOyMB DEMFuI uKOJYLjat nDkQyM oHjbJAaO WoZIx DNgveQiLW HBDjOBISi
OIyIrnSAX IMHDVlNK YgMxF jEKbAY AWvLM QIViS HMDqCM thRsdO NqkSYocYG ApxxLTL
AYwFldtrf LjazXPAY YQrvCyBJ kJanwv wtmcXF rJZDQI gPhCKD tGZiIKH TULkx shuOr
MLVCEJXH EYNFQ ebzDV uErMy xORGxGrLN oTPecPEpz Bnwrobov tBBAtPZg LjFWGoypt
MoRVgu FFncnt oiHZvj btCDlK
CIrcCH wkyKNR JfATLY oBobfqLK enGwlfoK uiuIyv HfuZGN cDftUeU AGPzGVQI
nizhZoj BCieroloA nOOJmKVxQ IrXXEAXcW lNmCBOO DPgNlto hWdtAqFRI rgObgEt
YqmTp
HHpcqeIit YdFDxkh lWuoR tEXZH rutzNoABC ARDyTAR VKzPUNzq JKUoE CheZgOld
TgYMLq hTRrty dBFNJpb CxAXqk Uutiui cYtkZLS ychli RuODuY JRmmK EFZZSv
ZJUgLDhsh EuqzJ YYNJAJgLn JCYiyHD JbbRFOnPA CheYe WOIXZ NCmsUZ dutFKgU
RdtgYBN znGbtu iuCIPK oWOXGzg DBWjswA OmaWUGlXx lLHjRMGbj WpGviviTA FQTsiB
aIpfkC kHYsJdX RveIhCUk WmflWoibi
</text>
</section>
```

Figure 10: Chief Complaint And Reason For Visit Section example

Chief Complaint Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1]

This section records the patient's chief complaint (the patient's own description).

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7832, CONF:10453) 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"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15451)/**@code**="10154-3" *CHIEF COMPLAINT* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15452)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7835)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:7834)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15451)/**@code**="10154-3" *CHIEF COMPLAINT* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15452)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7834)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7835)

Chief Complaint Section Table

consol::ChiefComplaintSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15452	LOINC 2.16.840.1.113883.6.1 10154-3
title	1..1	SHALL	ST	CONF:7834	
chiefComplaintSection	0..1	MAY	ChiefComplaintSection	CONF:9554	
text	1..1	SHALL	StrucDocText	CONF:7835	

Chief Complaint Section Sample

The following XML snippet is a sample for Chief Complaint Section

```
<section xmlns="urn:hl7-org:v3">
  <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>fCDpKbKc WHhIXIM JPNaDcSAE dFJqzjOT aXrNmd GLdwlRi ZuFyWHyF
PUpbnxzwG gIqskLO Yuwlfw EHuzHcCa
MChVeitdh IdpnHRWk yjhRAVD XQUOoIb xuXuDrk VSmePecZK tzfKchOy SmGbXpuzK
wkYeClj lAjTksQRa aelNtR JrcExwtqb yuzJWi BjddlN fcZLnypvX JoDCm PhfiNdfg
mxzbJNig nQrId LmZBrumn yUaeMhnOm AQgTJ sBjstDBcD vVTfM QiRHfF QxmQbAYJ
qZtllUNih wAHGAA mvWNIIGWZ BXBNdfuqR BEGJtn RJzCIv ttChIxkg UegMS RtjjifNJ
TAevUl zNkoU NkWywVg NelDUK fsUkey rWTFod pTWQx
</text>
</section>
```

Figure 11: Chief Complaint Section example

Complications Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.37]

The Complications section records problems that occurred during the procedure or other activity. The complications may have been known risks or unanticipated problems.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8174, CONF:10384) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.37"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15453)/**@code**="55109-3" *Complications* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15454)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:8176, R2.1=CONF:1198-8176)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:8177, R2.1=CONF:1198-8177)
 5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8795, CONF:8796)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
 6. There **SHALL** be a statement providing details of the complication(s) or it **SHALL** explicitly state there were no complications. (CONF:8797)
-
1. **SHALL** contain exactly one [1..1] **code** (CONF:15453)/**@code**="55109-3" *Complications* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15454)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8176, R2.1=CONF:1198-8176)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8177, R2.1=CONF:1198-8177)
 4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8795, CONF:8796)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
 5. There **SHALL** be a statement providing details of the complication(s) or it **SHALL** explicitly state there were no complications. (CONF:8797)

Complications Section Table

consol::ComplicationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.37]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15454	LOINC 2.16.840.1.113883.6.1 55109-3
title	1..1	SHALL	ST	CONF:8176, R2.1=CONF:1198-8176	
complicationsSection	1..1	SHALL	ComplicationsSection	CONF:9885	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.4]	0..*	MAY	ProblemObservation	CONF:8795, CONF:8796	
text	1..1	SHALL	StrucDocText	CONF:8177, R2.1=CONF:1198-8177	

Complications Section Sample

The following XML snippet is a sample for Complications Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.37"/>
```

```

<code code="55109-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Complications"/>
<title>Complications</title>
<text>IbBIwrP TnAxYXXG cFxmrfOx njrGxy JlXcsvV MbsUNEVb KEGHNzDR viLeHI
KkEHHrML ajDzDzY SDtIxEOhE BPXCB uJdojuqKY OWnNZU zjQqe WpoqWK jOpXYZ
peqmVP IrAFMsUZb KgeArxNeg mhVrqZVnH xRMJQAe UOcmJst
</text>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
        <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <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>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>
</section>

```

Figure 12: Complications Section example

DICOM Object Catalog Section

[Section: templateId 2.16.840.1.113883.10.20.6.1.1]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8525, CONF:10454) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.1.1"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15456)/**@code**="121181" *Dicom Object Catalog* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:15457)

3. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:8530, CONF:15458)
 - a. Conforms to [Study Act](#) (templateId: 2.16.840.1.113883.10.20.6.2.6)
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:8527)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:15456)/@code="121181" *Dicom Object Catalog* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:15457)
 2. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:8530, CONF:15458)
 - a. Conforms to [Study Act](#) (templateId: 2.16.840.1.113883.10.20.6.2.6)
 3. 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:8527)

DICOM Object Catalog Section Table

consol::DICOMObjectCatalogSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.6.1.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15457	DCM 1.2.840.10008.2.16.4 121181
dicomObjectCatalogSection	0..1	SHOULD	DICOMObjectCatalogSection	CONF:15141	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.6.2.6]	1..*	SHALL	StudyAct	CONF:8530CONF:15458	

DICOM Object Catalog Section Sample

The following XML snippet is a sample for DICOM Object Catalog Section

```
<section xmlns="urn:hl7-org:v3">
  <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"/>
  <text>NKkpVn DqBnuHc mOWAO EfsEea KXBxncn wQtulWvIV TXkqJuXqY hNmhfBnQh
    mNaVo SAVNpwA KKEOam isIEq fSsQyeDI OSeHpbY DwnRbEZMF LIQfCUM pkxjB vUFuO
    UMMBcVu SqVsS AOAFlfLuL wkhYNmOX qSsmQ rtiTPlyqt HkTXKilJ sYOLamri YglSACN
    tiDdGQ dwmxCtv aXNqe LtIdCfd BRzzzPj DicZjY FywXGLmmP lbwVk Mside CMJXCr
    eSVBl
    ZTBfmAb ZejOaxh GOGdBer DvySdbWJV bXlyi RAYqs bRnNpGvGh IMcMz LSRIHmKa
    XoxCPdGB POhsUpYc LzvAU EWpOt adIiEvJ MDPShYWL OerfjY GNcLmZrr MPDXpayg
    BgQOYYJ WKJSPJb taPtNO
    tHHLaYk OKSsHwkgT DpdmQia hHWSMNa RwVpYIOi ZZTfaQyAG MxMaogE TneJkead
    axuoQmcs hWspSvDf HJAJoBdJo ftnCFTgmV NWnPptv lTqDYsibG UofVbXw YNiVN
    bTSPiyPz aNDhETl JUppm BhDKb QwuxkLbi ZjZDqoEb Mctlo
  </text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
      <code code="113014" codeSystem="1.2.840.10008.2.16.4"
        codeSystemName="DCM"/>
      <text>Text Value</text>
      <entryRelationship>
        <act classCode="ACT" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.63"/>
          <code code="113015" codeSystem="1.2.840.10008.2.16.4"
            codeSystemName="DCM"/>
          <text>Text Value</text>
        </act>
      </entryRelationship>
    </act>
  </entry>
</section>
```

```

    <entryRelationship>
      <observation classCode="DGIMG" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
        <code codeSystem="1.2.840.10008.2.6.1"
codeSystemName="DCMUID"/>
      </observation>
    </entryRelationship>
  </act>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 13: DICOM Object Catalog Section example

Discharge Diet Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.33]

This section records a narrative description of the expectations for diet, including proposals, goals, and order requests for monitoring, tracking, or improving the dietary control of the patient, used in a discharge from a facility such as an emergency department, hospital, or nursing home.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10455) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.33"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15459)/**@code**="42344-2" *Discharge Diet* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15460)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7977)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7978)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15459)/**@code**="42344-2" *Discharge Diet* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15460)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7977)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7978)

Discharge Diet Section Table

consol::DischargeDietSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.33/]					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15460	LOINC 2.16.840.1.113883.6.1 42344-2
title	1..1	SHALL	ST	CONF:7977	
dischargeDietSection	0..1	MAY	DischargeDietSection	CONF:9558	
text	1..1	SHALL	StrucDocText	CONF:7978	

Discharge Diet Section Sample

The following XML snippet is a sample for Discharge Diet Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.33"/>

```

```

<code code="42344-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Discharge Diet"/>
<title>Discharge Diet</title>
<text>fYoCf kHAxyOUY GoCwO okZTAila shcQTzB yTARDdtF MbvfA jVLmNul bqrSZ
oBRCCc NyQhR EaGbKQznl DiMjZ BEBQcghuZ dtDPo qJAXqo usRaLF hwNoinrPy XiKcq
YPier fMRTQfzp VIPVIYrta WBSBnFph sitodG uapNmDan
xztGr dHbwhxHN snqAcEAK dRjYiOt xFFDVxLx qvGtlP cDdNfwU jXTqfz SHDbEHi
JrKJbV EEsBAH ulwLg mplMXOYw tawzYNdnc AiZYFva LmXnoRV zoyHmgaX sYYJtqFT
rZaEB BbFFECgCm NTltJyNZ ObJQfszXX YQZAzl xIPpvhno EehTcnKi NEaCEP DaFbF
gIZaQ ipZnh jOmXdUl qioSZU kKstKiT oHOueeuQu SmTdhSmE MHggKCQIA qsBxioiDt
LbTeL Ynxpe AlhtWWUG NfmxyqI GGUTQ luibOXf PNQuzXDr ScmDbV wLEVPGqR itfTB
dfTImRrH qdQuVt TJscVfO IBSULa OoKzYMEd PUjurZp HceUtv FOxCAU IUhKOJ
zopVfkcm IPgRHi AViWv APIPG SysuZ SirkXAoU gdSkbr hJmiMQwR CStGVvYa OpdAUXG
hSMXTvQ ZuWxQMj PNruJCWE UIjkJ pHhkjGme juSVEnpMo eKTJAxu tDKzU LsqUNf
WLZdIpc ybfFjv
</text>
</section>

```

Figure 14: Discharge Diet Section example

Encounters Section

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 for assessing and treating the patient at a given contact, exercising independent judgment. This section may contain all encounters for the time period being summarized, but should include notable encounters.

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 for assessing and treating the patient at a given contact, exercising independent judgment. This section may contain all encounters for the time period being summarized, but should include notable encounters.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.22]

The following constraints apply to a Encounters Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10386) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.22"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15461)/**@code**="46240-8" *Encounters* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15462)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7942, R2.1=CONF:1198-7942)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7943, R2.1=CONF:1198-7943)
5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7951, CONF:8802)
 - a. Conforms to [Encounter Activities](#) (templateId: 2.16.840.1.113883.10.20.22.4.49)

Required Entries

The following constraints apply to a Encounters Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10387) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.22.1"

2. **SHALL** conform to [Encounters Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.22)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15466)/@code="46240-8" *Encounters* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15467)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8708)
5. **SHALL** contain exactly one [1..1] **title** (CONF:8707)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:8709, CONF:8803)
 - a. Conforms to [Encounter Activities](#) (templateId: 2.16.840.1.113883.10.20.22.4.49)

Encounters Section Table

consol::EncountersSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.22]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15467	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 46240-8
title	1..1	SHALL	ST	CONF:8707	
cda:entry/ cda:encounter[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.49]	1..*	SHALL	EncounterActivities	CONF:8709CONF:8803	
encountersSection	0..1	MAY	EncountersSection	CONF:9457	
text	1..1	SHALL	StrucDocText	CONF:8708	

Encounters Section Sample

The following XML snippet is a sample for Encounters Section Entries Optional

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.22"/>
  <code code="46240-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Encounters"/>
  <title>Encounters</title>
  <text>WrBJT CWUQY wmRaaq viRzVhnz ygkrHhKwY HqicBwby RktCKDo noXsVEZRe
LtSHMda KBMGmM nvwFV xHlgYXYn dvatviy QEdErbHN lApnERvEg RXWykj iOEDBoK
VPoUqkZm svgoebV lilIGd okvRfax NENge qakPFFuC BgeWYvNiB WxoQYuUnw
KNOMbQarI DjmyD qvMqzplkR ILWdPSMh gGVsmEZ iAlae bNQRh ryEfLmLoF prCopvG
kWznY plZkTMKpu lsiPnI KeElrjd vAmwVBq LdnLjC oRcAgdfj XpCvMAT yUFhr
fROOuaHlA
</text>
  <entry>
    <encounter classCode="ENC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
      <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"/>
      <text>Text Value</text>
      <performer>
        <assignedEntity/>
      </performer>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>

```

```

        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.80"/>
        <code code="29308-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Diagnosis"/>
        <text>Text Value</text>
        <entryRelationship>
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
            <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            <statusCode code="completed"/>
          </observation>
        </entryRelationship>
      </act>
    </entryRelationship>
  </encounter>
</entry>
</section>

```

Figure 15: Encounters Section Entries Optional example

Family History Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.15]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10388) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.15"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15469, R2.1=CONF:1198-15469)/**@code**="10157-6" *Family History* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15470, R2.1=CONF:1198-15470, R2.1=CONF:1198-32481)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7934, R2.1=CONF:1198-7934)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7935, R2.1=CONF:1198-7935)
5. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:7955)
 - a. Conforms to [Family History Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.45)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15469, R2.1=CONF:1198-15469)/**@code**="10157-6" *Family History* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15470, R2.1=CONF:1198-15470, R2.1=CONF:1198-32481)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7934, R2.1=CONF:1198-7934)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7935, R2.1=CONF:1198-7935)
4. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:7955)
 - a. Conforms to [Family History Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.45)

Family History Section Table

consol::FamilyHistorySection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.15]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15470, R2.1=CONF:1198-15470, R2.1=CONF:1198-32481	LOINC 2.16.840.1.113883.6.1 10157-6
title	1..1	SHALL	ST	CONF:7934, R2.1=CONF:1198-7934	
cda:entry/ cda:organizer[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.45]	0..*	MAY	FamilyHistoryOrganizer	CONF:7955	
familyHistorySection	0..1	MAY	FamilyHistorySection	CONF:9560	
text	1..1	SHALL	StrucDocText	CONF:7935, R2.1=CONF:1198-7935	

Family History Section Sample

The following XML snippet is a sample for Family History Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.15"/>
  <code code="10157-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Family History"/>
  <title>Family History</title>
  <text>QJzkw uCqLCtzXM qraouaf dIvJS ZzcEXD MLjiT oWktmP qDwKCovz yFcPBin
NEtcnwva yTpOI JiGwXpoQ bjdJuxV FPFLpgzw
mmDIA qvyTI enpCQ hQUXMLU wcjec PKjOMuF Bumvxwqs GIRWO fwgDepXV gPwqg
VVSolGi eaTuYZ dTtoh mxGOzOb OQWBor qvHwzcxw EKzHSm halKBCeSP KVJXtl
HkISxjgvA csFkNX MAwOkP KQoceCZQ
</text>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.45"/>
      <code code="289505688"/>
      <statusCode code="completed"/>
      <subject>
        <relatedSubject classCode="PRS">
          <code codeSystem="2.16.840.1.113883.5.111"
codeSystemName="RoleCode"/>
        </relatedSubject>
      </subject>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.46"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
              <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
```



```

    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</component>
</organizer>
</entry>
</section>

```

Figure 16: Family History Section example

Findings Section

[Section: templateId 2.16.840.1.113883.10.20.6.1.2]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8531, CONF:10456) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.1.2"
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:8532)
1. 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:8532)

Findings Section Table

consol::FindingsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.6.1.2]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
findingsSection	1..1	SHALL	FindingsSection	CONF:9484	

Findings Section Sample

The following XML snippet is a sample for Findings Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.6.1.2"/>
  <text>mzCKgpSyn TMsOrBH Wwvbh LtLpHVfZ Xjoidkn CVsmr Fanhc yXKZPo
mDEZDokau ocspsysh rUdkKXNH QkPMVLW FaOTZqca ouamPsdU hKxSpftmc GGHvogKi
kcsYVYpp AfobNfEgL dvlgsakvL wurzDhvVt dxuMTEbV LVpQlpIp gYHXPt1H NfxGGjHh
PgYApAB fbDqmJew PfxFCJ
</text>
</section>

```

Figure 17: Findings Section example

Functional Status Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.14]

The Functional Status section describes the patient's physical state, status of functioning, and environmental status at the time the document was created. A patient's physical state may include information regarding the patient's physical findings as they relate to problems, including but not limited to: Pressure Ulcers Amputations Heart murmur Ostomies A patient's functional status may include information regarding the patient relative to their general functional and cognitive ability, including: Ambulatory ability Mental status or competency Activities of Daily Living (ADLs), including bathing, dressing, feeding, grooming Home or living situation having an effect on the health status of the patient Ability to care for self Social activity, including issues with social cognition, participation with friends and acquaintances other than family members Occupation activity, including activities partly or directly related to working, housework or volunteering, family and home responsibilities or activities related to home and family Communication ability, including issues with speech, writing or cognition required for communication Perception, including sight, hearing, taste, skin sensation, kinesthetic sense, proprioception, or balance A patient's environmental status may include information regarding the patient's current exposures from their daily environment, including but not limited to: Airborne hazards such as second-hand smoke, volatile organic compounds, dust, or other allergens Radiation Safety hazards in home, such as throw rugs, poor lighting, lack of railings/grab bars, etc. Safety hazards at work, such as communicable diseases, excessive heat, excessive noise, etc. The patient's functional status may be expressed as a problem or as a result observation. A functional or cognitive status problem observation describes a patient's problem, symptoms or condition. A functional or cognitive status result observation may include observations resulting from an assessment scale, evaluation or question and answer assessment. Any deviation from normal function displayed by the patient and recorded in the record should be included. Of particular interest are those limitations that would interfere with self-care or the medical therapeutic process in any way. In addition, a note of normal function, an improvement, or a change in functioning status may be included.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10389) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.14"
2. **SHALL** contain exactly one [1..1] **code/@code**="47420-5" *Functional status assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7921)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7922, R2.0=CONF:1098-7922)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7923, R2.0=CONF:1098-7923)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14414, CONF:14415)
 - a. Conforms to [Functional Status Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.66)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14418, CONF:14419)
 - a. Conforms to [Functional Status Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.67)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14416, CONF:14417)
 - a. Conforms to [Cognitive Status Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.75)
8. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14420, CONF:14421)
 - a. Conforms to [Cognitive Status Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.74)
9. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14424, R2.0=CONF:1098-14424, CONF:14425, R2.0=CONF:1098-14425)
 - a. Conforms to [Cognitive Status Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.73)
10. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14422, R2.0=CONF:1098-14422, CONF:14423, R2.0=CONF:1098-14423)
 - a. Conforms to [Functional Status Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.68)

11. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14426, R2.0=CONF:1098-14426, CONF:14427, R2.0=CONF:1098-14427)
 - a. Conforms to [Caregiver Characteristics](#) (templateId: 2.16.840.1.113883.10.20.22.4.72)
12. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14580, R2.0=CONF:1098-14580, CONF:14581, R2.0=CONF:1098-14581)
 - a. Conforms to [Assessment Scale Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.69)
13. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14582, CONF:14583)
 - a. Conforms to [Non Medicinal Supply Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.50)
14. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16777, R2.0=CONF:1098-16777, CONF:16778, R2.0=CONF:1098-16778)
 - a. Conforms to [Pressure Ulcer Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.70)
15. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16779, CONF:16780)
 - a. Conforms to [Number Of Pressure Ulcers Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.76)
16. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16781, CONF:16782)
 - a. Conforms to [Highest Pressure Ulcer Stage](#) (templateId: 2.16.840.1.113883.10.20.22.4.77)
1. **SHALL** contain exactly one [1..1] **code/@code**="47420-5" *Functional status assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7921)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7922, R2.0=CONF:1098-7922)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7923, R2.0=CONF:1098-7923)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14414, CONF:14415)
 - a. Conforms to [Functional Status Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.66)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14418, CONF:14419)
 - a. Conforms to [Functional Status Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.67)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14416, CONF:14417)
 - a. Conforms to [Cognitive Status Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.75)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14420, CONF:14421)
 - a. Conforms to [Cognitive Status Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.74)
8. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14424, R2.0=CONF:1098-14424, CONF:14425, R2.0=CONF:1098-14425)
 - a. Conforms to [Cognitive Status Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.73)
9. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14422, R2.0=CONF:1098-14422, CONF:14423, R2.0=CONF:1098-14423)
 - a. Conforms to [Functional Status Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.68)
10. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14426, R2.0=CONF:1098-14426, CONF:14427, R2.0=CONF:1098-14427)
 - a. Conforms to [Caregiver Characteristics](#) (templateId: 2.16.840.1.113883.10.20.22.4.72)
11. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14580, R2.0=CONF:1098-14580, CONF:14581, R2.0=CONF:1098-14581)
 - a. Conforms to [Assessment Scale Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.69)
12. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14582, CONF:14583)
 - a. Conforms to [Non Medicinal Supply Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.50)

13. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16777, R2.0=CONF:1098-16777, CONF:16778, R2.0=CONF:1098-16778)
- a. Conforms to [Pressure Ulcer Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.70)
14. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16779, CONF:16780)
- a. Conforms to [Number Of Pressure Ulcers Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.76)
15. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:16781, CONF:16782)
- a. Conforms to [Highest Pressure Ulcer Stage](#) (templateId: 2.16.840.1.113883.10.20.22.4.77)

Functional Status Section Table

consol::FunctionalStatusSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.14]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:7921	LOINC 2.16.840.1.113883.6.1 47420-5
title	1..1	SHALL	ST	CONF:7922R2.0=CONF:1098-7922	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.69]	0..*	MAY	AssessmentScaleObservation	CONF:14580R2.0=CONF:1098-14580CONF:14581R2.0=CONF:1098-14581	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.72]	0..*	MAY	CaregiverCharacteristics	CONF:14426R2.0=CONF:1098-14426CONF:14427R2.0=CONF:1098-14427	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.4]	0..*	MAY	CognitiveStatusProblemObservation	CONF:14424R2.0=CONF:1098-14424CONF:14425R2.0=CONF:1098-14425	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.2]	0..*	MAY	CognitiveStatusResultObservation	CONF:14420CONF:14421	
cda:entry/ cda:organizer[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.1]	0..*	MAY	CognitiveStatusResultOrganizer	CONF:14416CONF:14417	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.4]	0..*	MAY	FunctionalStatusProblemObservation	CONF:14422R2.0=CONF:1098-14422CONF:14423R2.0=CONF:1098-14423	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.2]	0..*	MAY	FunctionalStatusResultObservation	CONF:14418CONF:14419	
cda:entry/ cda:organizer[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.1]	0..*	MAY	FunctionalStatusResultOrganizer	CONF:14414CONF:14415	
functionalStatusSection	0..1	MAY	FunctionalStatusSection	CONF:9562	

consol::FunctionalStatusSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.14]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.77]	0..*	MAY	HighestPressureUlcerStage	CONF:16781CONF:16782	
cda:entry/ cda:supply[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.50]	0..*	MAY	NonMedicinalSupplyAction	CONF:14582CONF:14583	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.76]	0..*	MAY	NumberOfPressureUlcersObserved	CONF:16779CONF:16780	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.70]	0..*	MAY	PressureUlcerObservation	CONF:16777R2.0=CONF:1098-16777CONF:16778R2.0=CONF:1098-16778	
text	1..1	SHALL	StrucDocText	CONF:7923R2.0=CONF:1098-7923	

Functional Status Section Sample

The following XML snippet is a sample for Functional Status Section

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<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.14"/>
  <code code="47420-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Functional status assessment"/>
  <title>Functional status assessment</title>
  <text>ATqyLc IqwBTUn NEoqgl yucqKEad VKdreHwem kuSjfy gHCSlcWmM apgfhrz
BahMYfW QSEbl DwniSnql pwwndsy zRWLE EkKBQqq pYYKIf vHaVrdoC nDKLF OorrR
IBUiXyL JSnbtSt omLcEWFjn qNCZcdK KCeclw MIXFSIX eQiHYF VwrIme cdqZNnHtK
jeQNhr evdwtC StVsC CJXXK scYFlqQBp iRkQLvjHA WyXxh BjankQ MwtDVvAVD
bEFDlZVfL tXOXWwWa zRYXpZD lSptgIyM lCjXmtztQ
AICLTuz shujPdP NqnQecozo ybbfCmIx nGumLeVu EcopUN TabtwBuRZ GxfiCsUPU
IIXKIED HeTsl HvakFa LhNqbqpnL umymJj uOHsAY LWHfiGfi eDXrBHPu RllqAo ExYnU
ViWPyOYmk liUECg AvMmfk GeXkHQMoV zDVvi bVyuFmBI HJISGyAk fPqjw ajuJwp
npoypzFM qedKZ TtJhjHSLl yhbdcyyH UWgxJY zQCbRVY gOFoqM GMzTr dpyNpWD
qMSKEbDD OCYGuy zomHtl
aQOaj CCrNyr tnzUPkW tSfFDCUnG TfbDXB QQJvBUDpN vBPVZslu BuJekBqy FRBGKRUV
fUoggg VYPTx FoQTfiNE oqYwsPwn RmfmKs dFjIK cQvUW fodoeVhFq QqdCa BRIQpdN
XtAagywLt baGJnh hhNuya wGWez ErhqDeC gJyzqpwrU nwsXAUbQ
SryLZYyJ TnFkdJFhj cajUF jeMiSPtOz HALSH izhZcReB Fgpbgg zqYLwkeKX jnjryTts
JHaLXHpeW dkLTJjwCK GwqMVsn tXMCHQnU LjAYVU IOAtOHLAS KhWQTyaV kGMhUOB
yDIEx HcCub LAedBM HOHvZq jUjZC bFJFpGc SRYzbb kpzhY qUfPbq zyqfd KPARlbEvk
AbyZSLVc uEXzLEeIv wdwYi CzUCr VtxrCktoq cFCMUTop IGwSK zQjDEda pQjazZ
ifoUEOcr aPuzE SVvhGD QzBZGoPf hsGWxHpmG NATniVCH
</text>
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.66"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <statusCode code="completed"/>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.67"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
```

```

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<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
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<statusCode code="completed"/>
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  </supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
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  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
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</observation>
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codeSystemName="SNOMEDCT" displayName="Cognitive function finding"/>
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        <statusCode code="completed"/>
        <author/>
        <entryRelationship>
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        </entryRelationship>
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    </component>
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</entry>

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</organizer>
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    <author/>
    <entryRelationship>
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codeSystemName="SNOMEDCT" displayName="Cognitive function finding"/>
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    <statusCode code="completed"/>
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and activity"/>
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codeSystemName="HL7ActCode" displayName="Assertion"/>
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        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystemName="SNOMEDCT" displayName="Length of Wound"/>
            </observation>
        </entryRelationship>
        <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
                <code code="401239006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Width of Wound"/>
            </observation>
        </entryRelationship>
        <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
                <code code="425094009" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Depth of Wound"/>
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```

<templateId root="2.16.840.1.113883.10.20.22.4.76"/>
<code code="2264892003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="number of pressure ulcers"/>
<text>Text Value</text>
<statusCode code="completed"/>
<author/>
<entryRelationship typeCode="SUBJ">
  <observation classCode="OBS" moodCode="EVN"/>
</entryRelationship>
</observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.77"/>
    <code code="420905001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Highest Pressure Ulcer Stage"/>
    <text>Text Value</text>
  </observation>
</entry>
</section>

```

Figure 18: Functional Status Section example

General Status Section

[Section: templateId 2.16.840.1.113883.10.20.2.5]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10457) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.2.5"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15472)/**@code**="10210-3" *GENERAL STATUS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15473)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7987)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7988)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15472)/**@code**="10210-3" *GENERAL STATUS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15473)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7987)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7988)

General Status Section Table

consol::GeneralStatusSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.2.5]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15473	LOINC 2.16.840.1.113883.6.1 10210-3
title	1..1	SHALL	ST	CONF:7987	
generalStatusSection	0..1	MAY	GeneralStatusSection	CONF:9515	
text	1..1	SHALL	StrucDocText	CONF:7988	

General Status Section Sample

The following XML snippet is a sample for General Status Section

```
<section xmlns="urn:hl7-org:v3">
  <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>cAskgxc ezQwl KcYAT OBSwEEEx tTEddzFKF AzxiuakVz mypxpzX nhHmQDkm
eNBiDUN KPcsa wiFoNycM ahUFPfG GEExzM ectFb WwIcA gbzSsXMc JwuRAEq PUFDWK
FADLlq gTsXj nTugtkS CbEwMnJB eipyxUfo emEDsuf ysCtysS iMNDMTYTK
NRAOKNq yWwPAW JYPcrj csopQZ vNbqV zjZbeZ NlIVOQez zjXffJu rVQrfV ObJDZ
LOqAs tPwRv bTKkDVglq QoVklKlIE PUmWu hckTMOEqQ RKpHrkrim rNCVoldRt
QPimLhXlq rUCIdqxY jBNgo hsDGMTm pwvzk objANnOeU hWScHxQWt sJtaBma DQBxApr
QooWmrSJo ZSIACYq MPOsq aWgFCRI iVZFsdOBd DGYsdMq kEDXnPWJx kQzzuyKJd dTqbd
DngUFwup nSxrVnzp bpHQgZ MDyCBCjsJ DYbna vjWau xOUbJmRnd HGTizQ WVRMChA
dspSAvgS aoStFs
AaDagC lrgLxii gNxRifjQK gIJBst SWBkUIL mEBqO mGhZEh FjHhi IvaYIby grsjHQ
DAAOO gZTACr UVcQnR QVsBknTBT PQzFI mfUZaU QhlBeb CwVMO IQbkkJHHl
LHkLr OCTSOcycS xIXPKlTHw Bdgtfort RtoiXv Rzyplz OZkmVvMh BEmOkPGzR XMCOb
qMNDk dumcAS gxNjha FiOCvfFJ EUyGQbJ SLbDM xuBlhsLtu lbTBs AQUuZ fReXWD
IQWAcD
</text>
</section>
```

Figure 19: General Status Section example

History Of Past Illness Section

[Section: templateId 2.16.840.1.113883.10.20.2.2.20]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10390) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.2.2.20"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15474)/**@code**="11348-0" *HISTORY OF PAST ILLNESS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15475)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7830, R2.1=CONF:1198-7830)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7831, R2.1=CONF:1198-7831)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8792)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.2.2.4.4)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15474)/**@code**="11348-0" *HISTORY OF PAST ILLNESS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15475)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7830, R2.1=CONF:1198-7830)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7831, R2.1=CONF:1198-7831)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8792)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.2.2.4.4)

History Of Past Illness Section Table

consol::HistoryOfPastIllnessSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.20]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15475	LOINC 2.16.840.1.113883.6.1 11348-0
title	1..1	SHALL	ST	CONF:7830, R2.1=CONF:1198-7830	
historyOfPastIllnessSection	0..1	MAY	HistoryOfPastIllnessSection	CONF:9564	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.4]	0..*	MAY	ProblemObservation	CONF:8792	
text	1..1	SHALL	StrucDocText	CONF:7831, R2.1=CONF:1198-7831	

History Of Past Illness Section Sample

The following XML snippet is a sample for History Of Past Illness Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.20"/>
  <code code="11348-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="HISTORY OF PAST ILLNESS"/>
  <title>HISTORY OF PAST ILLNESS</title>
  <text>XIRHwDq NKnryguO kTKPWe GxcNFA jYhTXh zgPCxH hREKlncT LRZXSp
APSKEALG PUBCVYhS FtpCPws yyPFQJEJ mKKFKAYy xBWBxqTa MhCKRC ZpOPgK
AVKJnRHVg ZYhuFok hJbZKBWL yNNmvWfzT inbIgNNl PePgjeqK BQORgnIDj LGwIC
QDMdy wZJMQ MpcuLKCv1 AJGOSbC qvtIUNd rByLvGOM NBGtIP rYLAXaN VNpYi layGM
KEYtDYASS czhMUA KnRtsRn onEbeSeGi
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
          <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
```

```

<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>Text Value</text>
<statusCode code="completed"/>
</observation>
</entryRelationship>
</observation>
</entry>
</section>

```

Figure 20: History Of Past Illness Section example

History Of Present Illness Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.4]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10458) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.4"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15477)/**@code**="10164-2" *HISTORY OF PRESENT ILLNESS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15478)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7850)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7851)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15477)/**@code**="10164-2" *HISTORY OF PRESENT ILLNESS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15478)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7850)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7851)

History Of Present Illness Section Table

consol::HistoryOfPresentIllnessSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.4]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15478	LOINC 2.16.840.1.113883.6.1 10164-2
title	1..1	SHALL	ST	CONF:7850	
historyOfPresentIllness	1..1	SHALL	HistoryOfPresentIllnessSection	CONF:9493	
historyOfPresentIllnessSection	0..1	MAY	HistoryOfPresentIllnessSection	CONF:9566	
text	1..1	SHALL	StrucDocText	CONF:7851	

History Of Present Illness Section Sample

The following XML snippet is a sample for History Of Present Illness Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.4"/>
  <code code="10164-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="HISTORY OF PRESENT ILLNESS"/>

```

```

<title>HISTORY OF PRESENT ILLNESS</title>
<text>pNudXG UPiSc sttrZhSPH aaQDd MADppTVmm bMvjJfM vAAGkZ RqsjUc
vLwCRPqc cuVpQuy Bphlq DGYQoeBzF YJFWnhGtG FsNVl xIHKM sRgylMu QVremWLh
XZYmN BfQZBq LwjTt iHuzvS zjsnR jhucjlHr iVjWesbWY uADRFkmYJ aMACBfnoE
fRQbJf RnUwQN WExorDtW wNtrVNMct
eKwkMIADq clycaOeay rbsDRpVw KRpKfB KQVCF midadv DcNvzbi IcxqoBtY fqceSH
ePeLBgilQ OKlxHTXhz ErYzXKu fGvUO kLLtd wBziLAO ILeKZO rJiWCGzf cglRdYeJ
cizzMxFW JHHDjEiXb TgxfjHzGI wEqDkS yTZVU uDrQLU IAdbhd ruxHG ljXoI eoizaN
HtynsuG MHUKfrlZ syTPblPqs TGIsAlov DOjbCfEp YGLjTlXG noFpmgu sBxZCu YDcPh
aWAXN PVJUq aijlvkAl beCTgKQKd lMinCk WiUaPK
</text>
</section>

```

Figure 21: History Of Present Illness Section example

Hospital Admission Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.43]

The Hospital Admitting Diagnosis section contains a narrative description of the primary reason for admission to a hospital facility. The section includes an optional entry to record patient conditions.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9930, CONF:10391) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.43"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15479)/**@code**="46241-6" *HOSPITAL ADMISSION DX* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15480)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:9932, R2.1=CONF:1198-9932)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:9933, R2.1=CONF:1198-9933)
 5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:9934, CONF:9935)
 - a. Conforms to [Hospital Admission Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.34)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15479)/**@code**="46241-6" *HOSPITAL ADMISSION DX* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15480)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:9932, R2.1=CONF:1198-9932)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:9933, R2.1=CONF:1198-9933)
 4. If section/**@nullFlavor** is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:9934, CONF:9935)
 - a. Conforms to [Hospital Admission Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.34)

Hospital Admission Diagnosis Section Table

consol::HospitalAdmissionDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.43]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15480	LOINC 2.16.840.1.113883.6.1 46241-6
title	1..1	SHALL	ST	CONF:9932, R2.1=CONF:1198-9932	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.34]	0..1	SHOULD	HospitalAdmissionDiagnosis	CONF:9934, CONF:9935	
hospitalAdmissionDiagnosisSection	0..1	MAY	HospitalAdmissionDiagnosis	CONF:9934	

consol::HospitalAdmissionDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.43]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
text	1..1	SHALL	StrucDocText	CONF:9933, R2.1=CONF:1198-9933	

Hospital Admission Diagnosis Section Sample

The following XML snippet is a sample for Hospital Admission Diagnosis Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.43"/>
  <code code="46241-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="HOSPITAL ADMISSION DX"/>
  <title>HOSPITAL ADMISSION DX</title>
  <text>kHZdUN hHkLPO crdujSmF piGHRFOi pXaJWlt hXDAg BICpKe DzrvWU ZvkouA
fHArZhyf zNLPeiMB mkrOAwYTy eSIHD QwchXveZR
LoZcPcdv EsLcXK WxIxBOM MKtCPudme PNUhf MbkwVtIN mhcBe qeBxfbvvt TRHfl UmkrO
iBgQxjke EmIbAqflp jxFGLaUK rjWMEODZw khPit NOLmwZ nuBwqX jYfITg bgbsbZyQ
AMjbPtIDS JTuQBdSE sEDsha GSFIXeJzm TRFVUsiNB TKVvw aWYKLE pKWWGNJxP
sPKGhVeh sxSjLEdi jdIZME WzEjr AXcRgn DICzmyRd fVoal qmAkiLfUY gdvaO
xOdRdm
UlrZX tfXpYeS ydNEl BzvTo GDRKkDi VFzXgThx RKDOzzmM czntAxU HNmgOuVS
FFWbnvqKu xAVvUNcc pcoJv bZTKmcO FdYUIdSAI KIKZJO ZugiB QrVURYSk Ktjgc
uiGXGULnN oBVZUCXR KwyByH CMvLPLMiK jPUpL ZjzZEwa qbFTNe lRZNMM RVcdl
vHzyRW sZHCitk Qitfu UDHSsVHa yjiYiUbv xkGqRY bxEtNhGx FHseO
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.34"/>
      <code code="46241-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Admission diagnosis"/>
      <text>Text Value</text>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
              <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
              <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <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"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 22: Hospital Admission Diagnosis Section example

Hospital Consultations Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.42]

The Hospital Consultations section records consultations that occurred during the admission.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9915, CONF:10393) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.42"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15485)/**@code**="18841-7" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15486)
3. **SHALL** contain exactly one [1..1] **text** (CONF:9918)
4. **SHALL** contain exactly one [1..1] **title** (CONF:9917)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15485)/**@code**="18841-7" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15486)
2. **SHALL** contain exactly one [1..1] **title** (CONF:9917)
3. **SHALL** contain exactly one [1..1] **text** (CONF:9918)

Hospital Consultations Section Table

consol::HospitalConsultationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.42]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15486	LOINC 2.16.840.1.113883.6.1 18841-7
title	1..1	SHALL	ST	CONF:9917	
hospitalConsultationsSection	0..1	MAY	HospitalConsultationsSection	CONF:9924	
text	1..1	SHALL	StrucDocText	CONF:9918	

Hospital Consultations Section Sample

The following XML snippet is a sample for Hospital Consultations Section

```

<section xmlns="urn:hl7-org:v3">
  <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"/>
  <title>TEXT FOR TITLE</title>
  <text>szGcfqXLk CsIhYPJD LstAgmJ kKFakczSg DlTsg hhzhshfS kwHnzx XDQndk
IkruirM plMNnzPC jgERqpW PUvAnI ZmNJrqE LHPRBaA swHAXme jBPSxqUDu rcCiEgfuY

```

```

ILbsqWTe eLBIu gExxme mLiBDM PztCRXn JHJdwx UgjAIxOb RRbKOp CuIYH MUvyCpjo
joSQtcZo lrfbRs texuQgk UusmRZO xCMjeapQ ShfNdI RxikPcrJD XHnFugpEq
bPWwWUIs IWoeIIS qBHPmmrnF zbSyTC
</text>
</section>

```

Figure 23: Hospital Consultations Section example

Hospital Course Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.5]

The Hospital Course section describes the sequence of events from admission to discharge in a hospital facility.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10459) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.5"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15487)/**@code**="8648-8" *Hospital Course* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15488)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7854)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7855)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15487)/**@code**="8648-8" *Hospital Course* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15488)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7854)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7855)

Hospital Course Section Table

consol::HospitalCourseSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.5]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15488	LOINC 2.16.840.1.113883.6.1 8648-8
title	1..1	SHALL	ST	CONF:7854	
hospitalCourseSection	1..1	SHALL	HospitalCourseSection	CONF:9544	
text	1..1	SHALL	StrucDocText	CONF:7855	

Hospital Course Section Sample

The following XML snippet is a sample for Hospital Course Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.5"/>
  <code code="8648-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Hospital Course"/>
  <title>Hospital Course</title>
  <text>dwPzm kwPCu nLMIGHjY GWbOse PqvsFkcM sSFum yGxqQKvW ilFck iCjllIL
TzhWhqWZb DtdcOQXS SPisM QftRqWc jvbMSVc cYFeADgak PNFyMZjaf ZUyDSc
aadJwIeLY TYcToaQ upMJV OfmOi ooaDptAX VIbdQ GJwGTBm Wfzupd gQaOFvHBd
zZYpjdPIY OJIexlSD DaYMM ribvW RpMDFIFN MdQHWR EOJupOuE CjsaZgU lOXqLJpc
iloQdKv dYVXG
IYxmQyT Yykyxc ZJUoEFW ebyIHmxmZ hIEXTlNlc gCfGwrqB hnITHrdKr TappaHevi
DIfsjQ YlxOKSsOI TyNQAR pkWLvkwh Malku PYxYu YXDxtLuiu yovswFtEf ZdPad

```

```

MrFMwDFkk usdnhnvWT TwzDw lkJhrG0l QqcjbL QevORU HoCkvT nlnEdoEHK mwFpMOYDa
LSoSSt dkkXZPRHb AbCQoFl wLRsvuby UUXzJ RbRugJ wTTVAN WXzFdZ oTuIBXnDl
RadmMoOWn NbhVL txTXtk WJpvd gOARo IaXQnh tOLwadyX wJreehqQ ZcSlcFmQ
vpOWDfCfz RPPFBIQJ Yoquw kuvgyKtXg TMMRNjkaC
Lfbbfz JAKXo dgCKUhs CoQBx kQqJPKt EgZbV TuqFMvdSc hvbJCu auayrkL aymqS
mfybWQgAL HJUAg PQkLNDX cNvJS gLzCTuo IRcsJQ HyAgUev URZrnzZ pjSMbROt
yIdKcBXfw fAgAq MGrXFQtub JbvEYnyOU kBlNW NAjNJvPh KIISmpwl qnaRSfcTp
hbSihj PpPnAAQY DTzLKdyud SuTYrwN MoVCScvDI tKiTEkgG gsfdUG KHxiq mghYXsg
SDxDCZ yGcFtr wmeZiWY MLpbv frLAWCMDT vRkWfRb qWasytD gjBZJOsIe IILwqXJjo
veeBFP
jQSUqAAL zOdVwgJ qUhpB GCxOSP nxAff FoFULEX FYQjeFZZw MXqeK qDqfU wiUFXWQN
FzJpiYQD MHRzRwj FBZnujG mLhUakqnd gfSWbneHY pxmdhuk kPhDa SkCPIWzq SErOP
Eaahg nYymqrl
</text>
</section>

```

Figure 24: Hospital Course Section example

Hospital Discharge Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.24]

The Hospital Discharge Diagnosis section describes the relevant problems or diagnoses at the time of discharge that occurred during the hospitalization or that need to be followed after hospitalization. This section includes an optional entry to record patient conditions.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7979, CONF:10394) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.24"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15355)/**@code**="11535-2" *Hospital Discharge Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15356)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7981, R2.1=CONF:1198-7981)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7982, R2.1=CONF:1198-7982)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:7984)
 - a. Conforms to [Hospital Discharge Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.33)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15355)/**@code**="11535-2" *Hospital Discharge Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15356)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7981, R2.1=CONF:1198-7981)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7982, R2.1=CONF:1198-7982)
4. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:7984)
 - a. Conforms to [Hospital Discharge Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.33)

Hospital Discharge Diagnosis Section Table

consol::HospitalDischargeDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.24]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15356	LOINC 2.16.840.1.113883.6.1 11535-2
title	1..1	SHALL	ST	CONF:7981, R2.1=CONF:1198-798	

consol::HospitalDischargeDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.24]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.33]	0..1	SHOULD	HospitalDischargeDiagnosis	CONF:7984	
hospitalDischargeDiagnosisSection	1..1	SHALL	HospitalDischargeDiagnosis	CONF:7984	
text	1..1	SHALL	StrucDocText	CONF:7982, R2.1=CONF:1198-7982	

Hospital Discharge Diagnosis Section Sample

The following XML snippet is a sample for Hospital Discharge Diagnosis Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.24"/>
  <code code="11535-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Hospital Discharge Diagnosis"/>
  <title>Hospital Discharge Diagnosis</title>
  <text>YQKKwXJKk HbbFzJ qkSpDpDRZ cqQSRafTf fQpYYmvZ EBJQRd AhTQPd OQvSPInN
KbruL jjWpMBBbw JBOVs ajYaoYgsT AWJQo ouSIWWwb SzkNDyQYY UiNyfav wYCdKW
SlnCMQ tBZad WGHrc klreA lSxCPEOUh rTFkzzPb WpHkFkg oZqWnN QMKCNegZ
UWaIJZOly gtsyErMqI KeFZqgHL LjyRPF FgygqKhCb zznzain FiKchfL HYpGSPas
oSkkueP FFWjsPCfd ArefDa GhEAVCYFE bWftgxXw XxxjOwhsO zZcypheuX XkrZRC
osiAQ fYYKnHf OSZVHX YWXAwwz StZaAus JinyS EDwMIQV
RRXtDA revek XxagdT FuMVSFOA WNMcd wuZHbhZg EBlkCDHuB NnJSg LiLPnphH vADpqzW
ILdeYt HZLzKoDQt VZMQz dqcEyF GKzfE AkrzH PPXmxTM ODmPUudwX TtQenvURf
dHJOXfTKf iFFnyTlj JXBrOPDbs TZCPjCPn uAJdbcSC nUOnmUwsM cdFbAahe oYbUffi
YQOdtb FjXinxzyR ewfiZ KGdTfQ dnQaQDYv aXGddVIiV vQJPb QdgfcJ
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.33"/>
      <code code="11535-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Hospital Discharge Diagnosis"/>
      <text>Text Value</text>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
        <code code="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </act>
</entry>
</section>
```

```

    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.2.41"/>
        <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 25: Hospital Discharge Diagnosis Section example

Hospital Discharge Instructions Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.41]

The Hospital Discharge Instructions section records instructions at discharge.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10395) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.41"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15357)/**@code**="8653-8" *Hospital Discharge Instructions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15358)
3. **SHALL** contain exactly one [1..1] **title** (CONF:9922)
4. **SHALL** contain exactly one [1..1] **text** (CONF:9921)

1. **SHALL** contain exactly one [1..1] **code** (CONF:15357)/**@code**="8653-8" *Hospital Discharge Instructions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15358)
2. **SHALL** contain exactly one [1..1] **title** (CONF:9922)
3. **SHALL** contain exactly one [1..1] **text** (CONF:9921)

Hospital Discharge Instructions Section Table

consol::HospitalDischargeInstructionsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.41]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15358	LOINC 2.16.840.1.113883.6.1 8653-8
title	1..1	SHALL	ST	CONF:9922	
hospitalDischargeInstructionsSection	0..1	MAY	HospitalDischargeInstructionsSection	CONF:9921	
text	1..1	SHALL	StrucDocText	CONF:9921	

Hospital Discharge Instructions Section Sample

The following XML snippet is a sample for Hospital Discharge Instructions Section

```

<section xmlns="urn:hl7-org:v3">
  <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>PFGbf XcUKaA MpDMKJaO RjsllZ JkkIfjD syEdvSMzP ZDZrEjNo OnziWco
QEMFkYl lQsub goAhN KAjyDoLRw hMYuWS lJarMqrX usPHIaBP BBotPPQ ncIVszj
VlYHK wmAxw oyoQe NPjXbsAm PxmKH xjAiQP EPTdW hUNan MpKnkA fkkxUGUP mApzx
RMPQaQZfA NiLXuIJkH Xipzd xiqxzG PtljlAqB KkzDh hRtjxVoZM
RZEjDQ FNyJg ihEtkop HKdeF BqnatF quBJxIFa nAQosu ISwKGjG TAhsNIs msYuG
hflePWxJ qUJmDyt bimVIg KjVwHxZ ondBCx MzUSMVm MzcxApmkJ NLnuQnNRw
wwJbVRrIa XMSGOLedx
</text>
</section>

```

Figure 26: Hospital Discharge Instructions Section example

Hospital Discharge Medications Section

The Hospital Discharge Medications section defines the medications that the patient is intended to take (or stop) after discharge. The currently active medications must be listed. The section may also include a patient's prescription history and indicate the source of the medication list, for example, from a pharmacy system versus from the patient.

The Hospital Discharge Medications section defines the medications that the patient is intended to take (or stop) after discharge. The currently active medications must be listed. The section may also include a patient's prescription history and indicate the source of the medication list, for example, from a pharmacy system versus from the patient.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.11]

The following constraints apply to a Hospital Discharge Medications Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7816, CONF:10396) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.11"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15359)/**@code**="10183-2" *HOSPITAL DISCHARGE MEDICATIONS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15360)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7818, R2.1=CONF:1198-7818)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7819, R2.1=CONF:1198-7819)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7883)
 - a. Conforms to [Discharge Medication](#) (templateId: 2.16.840.1.113883.10.20.22.4.35)

Required Entries

The following constraints apply to a Hospital Discharge Medications Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10397) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.11.1"
2. **SHALL** conform to [Hospital Discharge Medications Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.11)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15361)/**@code**="10183-2" *HOSPITAL DISCHARGE MEDICATIONS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15362)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7825)
5. **SHALL** contain exactly one [1..1] **title** (CONF:7824)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:7827)
 - a. Conforms to [Discharge Medication](#) (templateId: 2.16.840.1.113883.10.20.22.4.35)

Hospital Discharge Medications Section Table

consol::HospitalDischargeMedicationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.11]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15362	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 10183-2
title	1..1	SHALL	ST	CONF:7824	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.35]	1..*	SHALL	DischargeMedication	CONF:7827	
text	1..1	SHALL	StrucDocText	CONF:7825	

Hospital Discharge Medications Section Sample

The following XML snippet is a sample for Hospital Discharge Medications Section Entries Optional

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.11.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.11"/>
  <code code="10183-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="HOSPITAL DISCHARGE MEDICATIONS"/>
  <title>HOSPITAL DISCHARGE MEDICATIONS</title>
  <text>XkjKFPvvp mgoFrzo mTUJdttX kTxesVr pqJczYm uvnKxRrA cQBifY BVZrvu
SuqloT KBImPjH gLTvKJ uwsWuTL kXFumLqiC qxNuecl MJnazq dXgvQyEe yTQpz
MEbqFk bGKzOI IwZQo GuSKTD FTuzU yoZlpil QwRNG GltUbcB vXdLGdwGp PJBZNzjrJ
pxGKhZb
sfmcBbmI WtdTQVbw uDxsEn AIixoI fPytYrM rxahvKTd lbnPsPU ORxxzIcPu KkXuMRP
AbefwNzru jLlSSWiX
VrYqNFR EnIfWjYuX XnmGjPK hkmzpe LlfUOnYsp IDmryr TnezRN KroxieCY HbCAXSCpx
hkayGDSGC EKnanPT ovnZCawmM LMANVM weCsqEk YZkntbTS ajBCUK
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.35"/>
      <code code="10183-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Discharge Medication"/>
      <text>Text Value</text>
      <entryRelationship>
        <substanceAdministration classCode="SBADM">
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
          <code code="857930432"/>
          <text>Text Value</text>
          <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
          <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
          <consumable/>
          <performer/>
          <entryRelationship>
            <supply classCode="SPLY" moodCode="INT">
              <templateId root="2.16.840.1.113883.10.20.22.4.17"/>

```

```

        </supply>
      </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 27: Hospital Discharge Medications Section Entries Optional example

Hospital Discharge Physical Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.26]

The Hospital Discharge Physical section records a narrative description of the patient's physical findings.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10460) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.26"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15363)/**@code**="10184-0" *Hospital Discharge Physical* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15364)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7973)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7974)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:15363)/**@code**="10184-0" *Hospital Discharge Physical* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15364)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7973)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7974)

Hospital Discharge Physical Section Table

consol::HospitalDischargePhysicalSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.26/]					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15364	LOINC 2.16.840.1.113883.6.1 10184-0
title	1..1	SHALL	ST	CONF:7973	
hospitalDischargePhysicalSection	0..1	MAY	HospitalDischargePhysicalSection	CONF:10568	
text	1..1	SHALL	StrucDocText	CONF:7974	

Hospital Discharge Physical Section Sample

The following XML snippet is a sample for Hospital Discharge Physical Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.26"/>
  <code code="10184-0" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="Hospital Discharge Physical"/>
  <title>Hospital Discharge Physical</title>
  <text>TWPOX mIccN PoXcpIW ZlZohib bjEGKEV CKOWy FaZcLX WOJgtPiG qajIarknu
    KOXludUI FlQAsd codTuCYO ajKIYztd RYHZMxTct pWUwZIo UfNndW
    nDmqL LvIdqh HnkDbF PcCwDLO gPUkfBo pgsOFHP mtgIpbZd lOJaEDcVP rTdeHz
    rKkFEY OlVwKR nKhSoiua BcRexWaGm JtkIoWH PHOzuv yrwRf BFcaJ uXWTi JJJaJ
    zVQbztJ oPkIv ngCmFdWG bFZULpwf mtstMAjp mOdVumJ LCOWZx frjoQLcP bjUMUxVM
    FSrDjrf aICvY qKGPFgqj nmEkiUsLm BuvLfTaR ReAWimN mtwgcDsrn mewtyw YZftcmiu
    fahuEVsPr fegoXWHL mcgrAoMiv BrxdJnM xeuVuOy PaOPnf zeglOt tEEot bjFOFmh
    WFweEjVva vuvjkxImm
  </text>
</section>
```

Figure 28: Hospital Discharge Physical Section example

Hospital Discharge Studies Summary Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.16]

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 where 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10398) such that it

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.16"

2. **SHALL** contain exactly one [1..1] **code** (CONF:15365)/@code="11493-4" *Hospital Discharge Studies Summary* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15366)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7912)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7913)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15365)/@code="11493-4" *Hospital Discharge Studies Summary* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15366)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7912)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7913)

Hospital Discharge Studies Summary Section Table

consol::HospitalDischargeStudiesSummarySection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.16/]					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15366	LOINC 2.16.840.1.113883.6.1 11493-4
title	1..1	SHALL	ST	CONF:7912	
hospitalDischargeStudiesSummarySection	1..1	MAY	HospitalDischargeStudiesSummarySection	CONF:7913	
text	1..1	SHALL	StrucDocText	CONF:7913	

Hospital Discharge Studies Summary Section Sample

The following XML snippet is a sample for Hospital Discharge Studies Summary Section

```
<section xmlns="urn:hl7-org:v3">
  <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>eJhZQl mphAFliQB EmiFp rteVLuXi MOlhjm PbPqWqfEr eTwjEG VZOcalZjL
LXzzn reHaobRig OoUFKOs mtvDAwHT OloYmXLq clyjLAuVN GwLBAtPC
yfSgp SchPafTDe qrMFvIf vduvi ECAYl tVwZa rrgODG sFhaVdeH RPQyzcpU IgXkTmJDt
QXTOO oCPJhPmt PBUDFJm wfuHO jDdfti cguKXYS TVjMPGCSE OAAsnzONw GgESMbT
oyASot SsxnRrp JJkIQYc grhcEreog wSJnUW CBRSoVXTM riHSoKLW ITSpWIL UdZIMyr
lbHrL JKbOUWAHD ypXHY sPvLt mhjgWWtWy ksHyJOK jvFcYfT vfgYLpL nVUzFCuR
atupUFCgl cMteWnk zNuPpC DqKpuvu DzKhHgd CuhmJP eHKpgQk UXjuSGkxc ZuknzRg
DMBzFL SXXvXnCWQ
hFtELXY QFhpM sKoQHCE LjObFDqv yqEuhQ YoDXhSbM YEdgfMk VXQEfFCXH AiFRYAlG
pbvaEZg NCXgAhT VFMfMatGM lkuIhQs TaAxfGLOG uVynnTroa EzQNb rXLZjEDD
BMhyCrX INtbySTj vuxsxui yUBayh siRvUNIdH GXDYIL JfQjPWSx EbJLYK Kelhxx
</text>
</section>
```

Figure 29: Hospital Discharge Studies Summary Section example

Immunizations Section

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.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.2]

The following constraints apply to a Immunizations Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7965, CONF:10399) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.2"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15367)/**@code**="11369-6" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15368)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7967, R2.1=CONF:1198-7967)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7968, R2.1=CONF:1198-7968)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7969, CONF:7970)
 - a. Conforms to [Immunization Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.52)

Required Entries

The following constraints apply to a Immunizations Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9015, CONF:10400) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.2.1"
2. **SHALL** conform to [Immunizations Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.2)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15369)/**@code**="11369-6" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15370)
4. **SHALL** contain exactly one [1..1] **title** (CONF:9017)
5. **SHALL** contain exactly one [1..1] **text** (CONF:9018)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:9019, CONF:9020)
 - a. Conforms to [Immunization Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.52)

Immunizations Section Table

consol::ImmunizationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.2]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15370	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 11369-6
title	1..1	SHALL	ST	CONF:9017	
cda:entry/ cda:substanceAdministration[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.52]	1..*	SHALL	ImmunizationActivity	CONF:9019CONF:9020	
immunizationsSection	0..1	MAY	ImmunizationsSection	CONF:9519	
text	1..1	SHALL	StrucDocText	CONF:9018	

Immunizations Section Sample

The following XML snippet is a sample for Immunizations Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.2.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.2"/>
```

```

<code code="11369-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
<title>TEXT FOR TITLE</title>
<text>kgeBC SehnigY liwdwuF tsmnQqz ZdMoV SPCDbarnW RWKXcnu DvsqIn
dqCGZ VkbHeUWsS iullQFbo wYBgxoGVq XMKnge BrOvvAFoh AkCyXCi xsHYwx lojRGD
sdpuFFfbp uLBYgOE KgqHu nkfxSk BxTtYWE SwQZMTMD uNRuj MldvyKSfM AOfptelC
cmNWywga eweXpA IznfGOp GGCMpA qaqLhQOo UEIHA auekhzHL cGCVdtFIY ezEexdYI
kQRkL yMZwmqJ xBDOYQW nLZTfhp mkQJsO TPEzb okfwurLif SiRIUC huUYeEx
SInLVv eFqLh ERkPl pQmuD qctjCLxg uTWLC GWfNDt SlOtnMTt FqLdt NSole cpZklOwz
ZhMRN fnidvt AmqEegS Dzbfza qJqLX eYWAKKyz kwoIl LbTVfK tgbQsG gPjPggsSXH
qPERiv WQtvYFjGG rFOHf vGWGp ACfmpntEN TpeZGfT PWFAq bQPKjN ZXtyCpZX
WPYoQsA YrzvTE ulWDn hWTVY yLuppMKIU lNBmMDUkt frxlXdJAv vAYRIhC agsIKOHL
naETYvspd PnlLuvZ VLbDF duAESJ bwwNm EJOAHy kyfgBT iBzkKy
UYWxkl LBbqCmdqT OOQajB jzRhgvubZ KeizUagS PQXIu tZlVVaq MRNbDhO xBtRUIa
BDvLB KJkVcObW oWvqmN HMApPXXZE wAvQMU MDRmvD rOBgJpHGy guHcuTJ sAowmlAiH
MXNJUSP yGirOv fdZUl cBPhEeqj
dHounNnAt jfQCKv sArSmmB zDuFhcZkn FSJXJWGP DSmqko zWTIEVfoB wERaFXR NfCarah
MCySVPODO KTygb sgpqrxV rBorX xXwedGhyu yKvnOWfNM HiquvKE RsAuYlRa eQLbaKXko
tcXNajf FgFflu YUWvpD grCLak JTHSod CGFfbuUS CTMGQqehG jrDAvD VDAyqWNZ
RpkYjPXWX BZgCs tMeobWoLl sJRTcc GtyKSXk EaDtrndiM WCAgnqkdz bPzGso
ypCRiaQjP VhFoiAft
</text>
<entry>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.52"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.52"/>
    <code code="2016038192"/>
    <text>Text Value</text>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable>
      <manufacturedProduct classCode="MANU">
        <templateId root="2.16.840.1.113883.10.20.22.4.54"/>
      </manufacturedProduct>
    </consumable>
    <performer/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <code code="1722305322"/>

```

```

    <text>Text Value</text>
  </performer/>
  <entryRelationship>
    <supply classCode="SPLY" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    </supply>
  </entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <code code="1057912420"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
        <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.53"/>
    <code codeSystem="2.16.840.1.113883.5.8"
codeSystemName="ActReason"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <code code="1208762023"/>
    <text>Text Value</text>
    <author/>
  </entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>

```

```

        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
    </act>
</entryRelationship>
</supply>
</entryRelationship>
<precondition typeCode="PRCN">
    <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    </criterion>
</precondition>
</substanceAdministration>
</entry>
</section>

```

Figure 30: Immunizations Section Entries Optional example

Instructions Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.45]

The Instructions section records instructions given to a patient. List patient decision aids here.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10112, CONF:10402) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.45"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15375)/**@code**="69730-0" *Instructions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15376)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:10114, R2.0=CONF:1098-10114)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:10115, R2.0=CONF:1098-10115)
 5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:10116, CONF:10117)
 - a. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15375)/**@code**="69730-0" *Instructions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15376)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:10114, R2.0=CONF:1098-10114)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:10115, R2.0=CONF:1098-10115)
 4. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:10116, CONF:10117)
 - a. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)

Instructions Section Table

consol::InstructionsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.45]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15376	LOINC 2.16.840.1.113883.6.1 69730-0
title	1..1	SHALL	ST	CONF:10114R2.0=CONF:1098-10114	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.20]	0..*	SHOULD	Instructions	CONF:10116CONF:10117	
instructionsSection	0..1	MAY	InstructionsSection	CONF:16807	

consol::InstructionsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.45]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
text	1..1	SHALL	StrucDocText	CONF:10115R2.0=CONF:1098-10115	

Instructions Section Sample

The following XML snippet is a sample for Instructions Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.45"/>
  <code code="69730-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Instructions"/>
  <title>Instructions</title>
  <text>OazPmV lQWyiV XFOxAU OAAMgjd nvhbeK plfINnG KogNaO FTyTr SqpXb
fgAIeDIIz tAuCwJEhM ByDuQduiN ispKR BIhKYNFe NPZogb kijXb wmcOMYg ZYxzi
xMbApQQB vfyHXJ IOxRQo IrqvxcA oCCrMeIM bChBlGG jgcaZuXPe jDqXxj RbHRhK
SDXIbW bvesCdjM EZSfjFu REjboGoeB uxOFEff rMVliKBLo Jmrby yjqhsCn MpiqwBwC
lqsZz kIPTNDES Vhtne ztDzH RZXwEX cTxXMjWp tCHFTI GbfihIqhx FVZTnc
VltZiauC LISyHbPh sonVKZmjV ohDvnJ Tvukiqt Cwxfw wZyjp xnUVTV FLKxxHKT
VZcZnVAI GlZSySvwM feuJC LlHbz TwCnyw grtNigKo MvlBhS sXmTp zGVmSseP
dIdYokor LrAjwV gYIHyy oqBpiiDU CPZLbRTq RXkyDi
</text>
  <entry>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </act>
  </entry>
</section>
```

Figure 31: Instructions Section example

Interventions Section

[Section: templateId 2.16.840.1.113883.10.20.21.2.3]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8680) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.21.2.3"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15377)/**@code**="62387-6" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15378)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8682, R2.1=CONF:1198-8682)

4. **SHALL** contain exactly one [1..1] **text** (CONF:8683, R2.1=CONF:1198-8683)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15377)/@**code**="62387-6" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15378)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8682, R2.1=CONF:1198-8682)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8683, R2.1=CONF:1198-8683)

Interventions Section Table

consol::InterventionsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.21.2.3]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15378	LOINC 2.16.840.1.113883.6.1 62387-6
title	1..1	SHALL	ST	CONF:8682, R2.1=CONF:1198-8682	
interventionsSection	0..1	MAY	InterventionsSection	CONF:8778	
text	1..1	SHALL	StrucDocText	CONF:8683, R2.1=CONF:1198-8683	

Interventions Section Sample

The following XML snippet is a sample for Interventions Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.21.2.3"/>
  <code code="62387-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
  <title>TEXT FOR TITLE</title>
  <text>GEjxAuSnA oDaeTl ObaWUwqY COPXuNjw HUXzR BhGRnnAMd YTLjqFp oLvDUwA
ijbhaF oTvhZcx BTGoXu CvCwYUa Sqluwsh jXlxfiLrL ZoABKia wXPhngiA RZBjHpLbc
qomMx sXkCDeWi BcRRmkLfw BJxUbF
GawSYGovT UGckwGZw uxitTfK TZyIgprM Hliyg bjPAIV ycHhzfCRl QfxyQ cxENZdAq
wyHBIybdq WcVkoHV UXrhBTJyV swXifJV AihsoHhL kneqXrWvQ phEpUgPRu opyevUvz
HQWcIF QKporUc ZNDEJqU TUNZCQc phogyWSfm BefaaHeQ VVlXrXDRk SjAdq Mztzn
svTAOyg HksxC xflcWIkQK UuGAad dhGHW
</text>
</section>
```

Figure 32: Interventions Section example

Medical Equipment Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.23]

The Medical Equipment section defines a patient's implanted and external medical devices and equipment that their health status depends on, as well as any pertinent equipment or device history. This section is also used to itemize any pertinent current or historical durable medical equipment (DME) used to help maintain the patient's health status. All pertinent equipment relevant to the diagnosis, care, and treatment of a patient should be included.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7944.CONF:10404) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.10.20.22.2.23"

2. **SHALL** contain exactly one [1..1] **code** (CONF:15381)/@code="46264-8" *Medical Equipment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15382)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7946, R2.0=CONF:1098-7946)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7947, R2.0=CONF:1098-7947)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7948.CONF:8755)
 - a. Conforms to [Non Medicinal Supply Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.50)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15381)/@code="46264-8" *Medical Equipment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15382)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7946, R2.0=CONF:1098-7946)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7947, R2.0=CONF:1098-7947)
4. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7948.CONF:8755)
 - a. Conforms to [Non Medicinal Supply Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.50)

Medical Equipment Section Table

consol::MedicalEquipmentSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.23]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15382	LOINC 2.16.840.1.113883.6.1 46264-8
title	1..1	SHALL	ST	CONF:7946R2.0=CONF:1098-7946	
medicalEquipmentSection	0..1	MAY	MedicalEquipmentSection	CONF:9466	
cda:entry/ cda:supply[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.50]	0..*	SHOULD	NonMedicinalSupplyActivity	CONF:7948.CONF:8755	
text	1..1	SHALL	StrucDocText	CONF:7947R2.0=CONF:1098-7947	

Medical Equipment Section Sample

The following XML snippet is a sample for Medical Equipment Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.23"/>
  <code code="46264-8" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="Medical Equipment"/>
  <title>Medical Equipment</title>
  <text>gOmRMsmIF MXqXsH bgdllwMbp ZTVux gyDsb Dijpxf pHgisRAiU mQlOksv
    VxUmX mDSNk JHfoWXDFG zMLXfg LVueBiJBj CCjsUK NULot EkIqnZ XICyg OzlZMw
    KimqtssgA ftyQGpZWq mSUsAq uVrby JwKxSFGKw jQbhK
    KgoYa RrjPFkA otuEoQGON fprpDaZkb zOzWzq QXOBiJ Vwcerk azONv OmOYUJzq gNXkCg
    RKZijZR kKZbO
    UVXrhg ESGpkgY zgsiqg Uwmakilq AFMUzIOFz YAOlmVrD QLGLNca NduMdeiQ qffBfH
    yuvUqOhp jcXWyd uOyHrO tPzJCC FcyBx kDbzdF tEKwaTnu OHjJne bPUBAJT
    fwFcnppjU SMSzO uNfZKnV uJPvZadgp maCmbfbx OYKZOp HMKbzDr emPAj oktyM
    whaHYR lrbQtemF picrMA HSTPBr MkkHOikj TDgkjzsrP yindtVf aJlIAjDp PtvZknfQ
    XupAP FgTPDhMG FeUoz GtQuQmmn
  </text>
  <entry>
    <supply classCode="SPLY">
      <templateId root="2.16.840.1.113883.10.20.22.4.50"/>
      <code code="1580711227"/>
      <text>Text Value</text>
    </supply>
  </entry>
</section>
```

```

    </supply>
  </entry>
</section>

```

Figure 33: Medical Equipment Section example

Medical History Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.39]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8160, CONF:10403) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.39"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15379)/**@code**="11329-0" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15380)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8163)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8162)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15379)/**@code**="11329-0" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15380)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8162)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8163)

Medical History Section Table

consol::MedicalHistorySection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.39]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15380	LOINC 2.16.840.1.113883.6.1 11329-0
title	1..1	SHALL	ST	CONF:8162	
medicalHistorySection	0..1	MAY	MedicalHistorySection	CONF:9823	
text	1..1	SHALL	StrucDocText	CONF:8163	

Medical History Section Sample

The following XML snippet is a sample for Medical History Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.39"/>
  <code code="11329-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
  <title>TEXT FOR TITLE</title>
  <text>pdxVSM EnZMdt aYcliP sekwjqB hNtICsXR DvPATLW ZZKfV cnwce hCIcR
kdrCKUbA sDMDMZ zkTzv sAKpu LziHd AQnvXyEg TCgKIv BARutW KVAkaL ssIvMQSD

```

```

EecwPn DcDrb BYTwILhuD oJJqjK eXnxOIs aAOumxnzO OBtsCwr qAajoZagB BxCoQm
eWPBuD FesPVwzr
WXObiiU lLDUn WMcUSlbc TBqwXS RjQseqrZJ XBVTQXwSM lHiWKolke PMiQTz uuZAIL
jUomE oPzWv vVranb qQsIWE zJzcp upLQhO tjYbnEf ONxmpJX kvJeouDPB dCtrUL
hJQcjSmt TIjHj hdcLUXC QDgwx tZzJuEhg LbkVkddI ACCLntS JHISycb JIIIVNKQz
WDvkz VAPQoq pQpza vspiEGv eGuRXRkLu VWluXKs vYgUUoWd yElFVUHi fpjexBr
Rqydsogq JchWXo CUSrRDvyX jmvuzk aHBNEBMok OBGPGWG QmxALYxLK QNboeVnZk
DQGVg KtxjfX HvezBBMp XYRSEPCtk OqSftMoG ITLwJjnkS YPnTbIev UYYxbtHY
TtVjGu
</text>
</section>

```

Figure 34: Medical History Section example

Medications Administered Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.38]

The Medications Administered section defines medications and fluids administered during the procedure, encounter, or other activity excluding anesthetic medications. This guide recommends anesthesia medications be documented as described in the section on Anesthesia.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8152, CONF:10405) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.38"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15383)/**@code**="29549-3" *Medications Administered* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15384)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8154, R2.0=CONF:1098-8154)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8155, R2.0=CONF:1098-8155)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8156)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15383)/**@code**="29549-3" *Medications Administered* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15384)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8154, R2.0=CONF:1098-8154)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8155, R2.0=CONF:1098-8155)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8156)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

Medications Administered Section Table

consol::MedicationsAdministeredSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.38]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15384	LOINC 2.16.840.1.113883.6.1 29549-3
title	1..1	SHALL	ST	CONF:8154R2.0=CONF:1098-8154	
cda:entry/ cda:substanceAdministration[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.16]	0..*	MAY	MedicationActivity	CONF:8156	
medicationsAdministeredSection	0..1	MAY	MedicationsAdministeredSection	CONF:9827	

consol::MedicationsAdministeredSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.38]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
text	1..1	SHALL	StrucDocText	CONF:8155R2.0=CONF:1098-8155	

Medications Administered Section Sample

The following XML snippet is a sample for Medications Administered Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.38"/>
  <code code="29549-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Medications Administered"/>
  <title>Medications Administered</title>
  <text>ucioNc HNrTYx pssXyDNSr eBkSYSFhq ROGes Gaczr XysGz vtBAW RXIYZnV
lWTWZGu MKegYubwv nCFSpj mHLUnD IdFNumfc wUVDvKbKp sdkFGfoi LDBSK
GWYlKps dQikRDhtg elIEvs MnQjhaf xbhHUHQh oSsbBu uOlmFo lHuDcySLq exUcmmu
ntQGSbDmP
yPtIHRdh OXbeaOgK ndWAI uVIIaOvl oIPfisR RJPuCUHf SPWwklEt jWYZtwd tTzvW
NwLSGRab xsLPjukP pjxeR oPLYEm vDQqqffk mKSUv JFUyN ldpvaBZZR NVPmVdg
grdvcvof FAvKiY NCpFZRbuZ ltvFiq MpJqGSvBU kjkZXTZJL qByLLrG qwJJPSHew
WbkMdOKuc XcELMsrs FrhTvX PIuFZG DRWDdrIK qAOiSHTD vRinQ JtGKofY snKdRElMq
iDQwnAE
</text>
  <entry>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <code code="1361973487"/>
      <text>Text Value</text>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
        </manufacturedProduct>
      </consumable>
      <performer/>
      <entryRelationship>
        <supply classCode="SPLY" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          <code code="599038379"/>
          <text>Text Value</text>
          <author/>
          <entryRelationship>
            <act classCode="ACT" moodCode="INT">
              <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
              <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
              <statusCode code="completed"/>
            </act>
          </entryRelationship>
        </supply>
      </entryRelationship>
    </substanceAdministration>
  </entry>
</section>
```

```

    </supply>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <code code="515792049"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
  </observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
    <code code="1857064800"/>
    <text>Text Value</text>
    <performer/>
  </entryRelationship>
  <supply classCode="SPLY" moodCode="INT">

```

```

        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
  </supply>
</entryRelationship>
<precondition typeCode="PRCN">
  <critrion>
    <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
  </critrion>
</precondition>
</substanceAdministration>
</entry>
</section>

```

Figure 35: Medications Administered Section example

Medications Section

The Medications section defines a patient's current medications and pertinent medication history. At a minimum, the currently active medications are to be listed, with an entire medication history as an option. The section may also include a patient's prescription and dispense history. This section requires that there be either an entry indicating the subject is not known to be on any medications, or that there be entries summarizing the subject's medications.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.1]

The following constraints apply to a Medications Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7791) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.1"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15385)/**@code**="10160-0" *History of medication use* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15386)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7793, R2.0=CONF:1098-7793)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7794, R2.0=CONF:1098-7794)
5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7795, CONF:7573)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
6. If medication use is unknown, the appropriate **nullFlavor** **MAY** be present (see unknown information in Section 1)

Required Entries

The following constraints apply to a Medications Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7568, CONF:10433) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.1.1"
2. **SHALL** conform to [Medications Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15387)/**@code**="10160-0" *History of medication use* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15388)
4. **SHALL** contain exactly one [1..1] **title** (CONF:7570)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7571)
6. If section/**@nullFlavor** is not present, **SHALL** contain [1..*] **entry** such that it (CONF:7572, CONF:7573)
 - a. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
7. If medication use is unknown, the appropriate **nullFlavor** **MAY** be present (see unknown information in Section 1)

Medications Section Table

consol::MedicationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15388	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 10160-0
title	1..1	SHALL	ST	CONF:7570	
cda:entry/ cda:substanceAdministration[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.16]	1..*	SHALL	MedicationActivity	CONF:7572CONF:7573	
medicationsSection	1..1	SHALL	MedicationsSection	CONF:9447	
text	1..1	SHALL	StrucDocText	CONF:7571	

Medications Section Sample

The following XML snippet is a sample for Medications Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.1"/>
  <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of medication use"/>
  <title>History of medication use</title>
  <text>orFLrk wDHCN htrmRYC bKhqbHZOQ GNkGS vGBfc tXRJefrH scaYyGx
YFnJiOKLv pnjzrvPZC qLryrr FsmDjbxS YAtiEzAwv HTrUgV PCfneXw NgKxI MIWWc
BehEAweYk Hdldc NevnuVSG ighDj FmwJwbqgO XbJdzvJXp DEbouYd DwgXco MbqDVRo
IIiot KXpuyvyrOL pYbFt SEEWzrkYq RwerxWIDx bWlhAbez vfgtSpupA hqLMPPr
sOSuKotgw VOVfx gtmUQ AUbvsFq bKafCALfj oIGjhmRy QCLWvUhd GZhhCmscr
</text>
  <entry>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <code code="1873463811"/>
      <text>Text Value</text>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
        </manufacturedProduct>
      </consumable>
      <performer/>
      <entryRelationship>
        <supply classCode="SPLY" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          <code code="2066929364"/>
          <text>Text Value</text>
        </supply>
      </entryRelationship>
    </substanceAdministration>
  </entry>
</section>
```

```

    <author/>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
  </supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <code code="1923157543"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
    <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  </procedure>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
  </substanceAdministration>
</entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </observation>

```



```

</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
    <code code="1369929602"/>
    <text>Text Value</text>
    <performer/>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
  </supply>
</entryRelationship>
<precondition typeCode="PRCN">
  <criterion>
    <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
  </criterion>
</precondition>
</substanceAdministration>
</entry>
</section>

```

Figure 36: Medications Section Entries Optional example

Objective Section

[Section: templateId 2.16.840.1.113883.10.20.21.2.1]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7869, CONF:10462) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.21.2.1"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15389)/**@code**="61149-1" *Objective* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15390)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7872)
4. **SHALL** contain exactly one [1..1] **title** (CONF:7871)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15389)/**@code**="61149-1" *Objective* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15390)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7871)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7872)

Objective Section Table

consol::ObjectiveSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.21.2.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15390	LOINC 2.16.840.1.113883.6.1 61149-1
title	1..1	SHALL	ST	CONF:7871	
objectiveSection	0..1	MAY	ObjectiveSection	CONF:8770	

consol::ObjectiveSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.21.2.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
text	1..1	SHALL	StrucDocText	CONF:7872	

Objective Section Sample

The following XML snippet is a sample for Objective Section

```
<section xmlns="urn:hl7-org:v3">
  <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"/>
  <title>Objective</title>
  <text>DaqNqP pVnwW blxbwb SpfksnFM ZPuYHbTL YjphWR airSnwnyz gyJmP
DudQzpcJg Zbcxs NZfPf cyxzvSxKS OXpELIMHJ WNuHj lnLVkcwA LtIVVEp YIaSbI
dNqXMfxw vwSlH GvLpMNR VWOdGbF ZadmDHYX YBhRVOEA qwTUQsves SlOkzOyMc NVwAgZ
KMEObO ZrPUOpp zSIGTT jmqaACJN npMnTlCjB rkCBbKIjN PIgOLLIT yAMirMd OjNGaVb
WifMq AbRCQYVlp aPcoGT pwztmn MOJpljSvH LRtHhE zjMjYAEHv
</text>
</section>
```

Figure 37: Objective Section example

Operative Note Fluid Section

[Section: templateId 2.16.840.1.113883.10.20.7.12]

The Operative Note Fluids section may be used to record fluids administered during the surgical procedure.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8030, CONF:10463) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.7.12"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15391)/**@code**="10216-0" *Operative Note Fluids* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15392)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8033)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8032)
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:8052)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:15391)/**@code**="10216-0" *Operative Note Fluids* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15392)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8032)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8033)
 4. 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:8052)

Operative Note Fluid Section Table

consol::OperativeNoteFluidSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.7.12]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15392	LOINC 2.16.840.1.113883.6.1 10216-0
title	1..1	SHALL	ST	CONF:8032	
operativeNoteFluidSection	0..1	MAY	OperativeNoteFluidSection	CONF:9900	
text	1..1	SHALL	StrucDocText	CONF:8033	

Operative Note Fluid Section Sample

The following XML snippet is a sample for Operative Note Fluid Section

```
<section xmlns="urn:hl7-org:v3">
  <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>aXqbS jzbLryXj QXVjnE xtbcuj tZCfR ohLDRjf hkkorQ LQAVul ApTpAt
pQXAt jcWvjPXTw hgdLq HdZHeF kpgMM iuDny hUaKs miIfavCp LOasDGQ yUnCbfsrE
WHdTXT LnWexdAq ggkYF llfnVTQ mAkWvvUx Foxcl EnlzpaP
rmVen XpXvWVtr mBWQCrUFB rcsdiOM GFPzYarw EXwTuyK ipGndPx SbzwtiE rUawMHmSW
ypVkJw owEcs BBrZXYpoF QyrQR jeQMT wCsRmotSb KtAUk MLzUJDa NcbvWR FPPnBXZ
IfjnOcVeh uKfoFPYAv jVTbwLO SFJDL BECTf EEfRx kZWuPN bVQyD VzktScdI hPKhrys
qzLocYud hCCiiAvXE KSHQvW QceQE dztCC nnNIQtE GfvDOQXn yeboMOho WJEDMpqys
mczuXBOWn Aktjw ZwthB nqoCsW bfdpGYbHB zaLtjO UVOnQ STuCYJ YHVti PWJYX
TLsYJ nYzldOQqE dacujjDSO
FUDHjddM TpJfJb KcXrmb MvCNG bqIhGzH IrVQjO zHCMRR wHDgucUH WBhaUCqow
pCMjwcLuX XVAHjucEV WmnoP FodIfXhZ jENkDf GAuPfJvU bnPepM auCHCwBrY
HhMaGYko XwFox lojPuyZ yUtMXQuWJ rdwkaCXR ejpNA AzbjuqRC aJjchZ bFybrCln
KovQMFO BsackzHt ruPwLWNX edRahE hMfrGoRA DRCQPKT uCyMhNE DProWqqV oZibvmsx
jpvjSSmoh LcCiaWq
HaUPqHWX zSrTXOh ixTObr RGQjs cXapPfsB GCMLmGVd nyrKMSO GUqSeF hqMFUTx
cgDEOKf qBFLwz ZMiENoj jkXLb iCbCR
</text>
</section>
```

Figure 38: Operative Note Fluid Section example

Operative Note Surgical Procedure Section

[Section: templateId 2.16.840.1.113883.10.20.7.14]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8034, CONF:10464) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.7.14"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15393)/**@code**="10223-6" *Operative Note Surgical* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15394)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8037)

4. **SHALL** contain exactly one [1..1] **title** (CONF:8036)
5. If the surgical procedure section is present there **SHALL** be text indicating the procedure performed. (CONF:8054)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15393)/@code="10223-6" *Operative Note Surgical* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15394)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8036)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8037)
4. If the surgical procedure section is present there **SHALL** be text indicating the procedure performed. (CONF:8054)

Operative Note Surgical Procedure Section Table

consol::OperativeNoteSurgicalProcedureSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.7.14]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15394	LOINC 2.16.840.1.113883.6.1 10223-6
title	1..1	SHALL	ST	CONF:8036	
operativeNoteSurgicalProcedureSection	1..1	MAY	OperativeNoteSurgicalProcedureSection	CONF:8036	
text	1..1	SHALL	StrucDocText	CONF:8037	

Operative Note Surgical Procedure Section Sample

The following XML snippet is a sample for Operative Note Surgical Procedure Section

```
<section xmlns="urn:hl7-org:v3">
  <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"/>
  <title>Operative Note Surgical</title>
  <text>JaBaFXl NWcnbn SNAAVqyNH vHMAN xUEBN cVNrG obnTsNFQ vpLMLM zvexub
aBVusAyco nDJkTo ykXtSHQmG VLrSoi HNBVNJftA bMOOC xyRWDb
</text>
</section>
```

Figure 39: Operative Note Surgical Procedure Section example

Payers Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.18]

The Payers section contains data on the patient's payers, whether a 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7924, CONF:10434) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.18"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15395)/**@code**="48768-6" *Payers* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15396)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7926, R2.1=CONF:1198-7926)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7927, R2.1=CONF:1198-7927)
 5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7959, CONF:8905)
 - a. Conforms to [Coverage Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.60)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15395)/**@code**="48768-6" *Payers* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15396)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7926, R2.1=CONF:1198-7926)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7927, R2.1=CONF:1198-7927)
 4. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7959, CONF:8905)
 - a. Conforms to [Coverage Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.60)

Payers Section Table

consol::PayersSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.18]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15396	LOINC 2.16.840.1.113883.6.1 48768-6
title	1..1	SHALL	ST	CONF:7926, R2.1=CONF:1198-7926	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.60]	0..*	SHOULD	CoverageActivity	CONF:7959, CONF:8905	
payersSection	0..1	MAY	PayersSection	CONF:9468	
text	1..1	SHALL	StrucDocText	CONF:7927, R2.1=CONF:1198-7927	

Payers Section Sample

The following XML snippet is a sample for Payers Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.18"/>
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Payers"/>
  <title>Payers</title>
  <text>gMpdl olPBRta kcpyppd mbLsluu MVwiTBQk vNYFrrQ ffjqphB fQggl
CJhMJMaDk hKCZWH osPJHlo vZDETZTMH geXbAMw wrTko MotcGr VfXahH jhYPkKkH
LiTgYe ogwJtN eJGdsSXO uRvRpckry maAURE rnaNPUC xaEGTArp HQzkH JYWugX
npmKSxBFi IPVHki iihCfje fiavia jKSovU nRcrwAhw XuNpDFa lekFpx DtgvfCNDn
mRcywJ urozBMc OwBOxmop GsFyvXJW pseUStmVc vbiPN tYyIuyzc tsvgaJEW
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.60"/>
      <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Payment Sources"/>
      <text>Text Value</text>
    </act>
  </entry>
</section>
```

```

<statusCode code="completed"/>
<entryRelationship>
  <act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.61"/>
    <code codeSystemName=""/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <performer typeCode="PRF">
      <templateId root="2.16.840.1.113883.10.20.22.4.87"/>
    </performer>
    <performer typeCode="PRF">
      <templateId root="2.16.840.1.113883.10.20.22.4.88"/>
    </performer>
    <participant typeCode="COV">
      <templateId root="2.16.840.1.113883.10.20.22.4.89"/>
    </participant>
    <participant typeCode="HLD">
      <templateId root="2.16.840.1.113883.10.20.22.4.90"/>
    </participant>
    <entryRelationship typeCode="REFR"/>
  </act>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 40: Payers Section example

Physical Exam Section

[Section: templateId 2.16.840.1.113883.10.20.2.10]

The Physical Exam section includes direct observations made by the clinician. The examination may include the use of simple instruments and may also describe simple maneuvers performed directly on the patient's body. This section includes only observations made by the examining clinician using 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: Vital Signs, General Status, and those listed in the Additional Physical Examination Subsections appendix.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10465) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.2.10"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15397)/**@code**="29545-1" *PHYSICAL EXAMINATION* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15398)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7808, R2.1=CONF:1198-7808)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7809, R2.1=CONF:1198-7809)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17094, CONF:17095)
 - a. Conforms to [Pressure Ulcer Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.70)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17096, CONF:17097)
 - a. Conforms to [Number Of Pressure Ulcers Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.76)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17098, CONF:17099)
 - a. Conforms to [Highest Pressure Ulcer Stage](#) (templateId: 2.16.840.1.113883.10.20.22.4.77)

1. **SHALL** contain exactly one [1..1] **code** (CONF:15397)/@code="29545-1" *PHYSICAL EXAMINATION* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15398)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7808, R2.1=CONF:1198-7808)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7809, R2.1=CONF:1198-7809)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17094, CONF:17095)
 - a. Conforms to [Pressure Ulcer Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.70)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17096, CONF:17097)
 - a. Conforms to [Number Of Pressure Ulcers Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.76)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:17098, CONF:17099)
 - a. Conforms to [Highest Pressure Ulcer Stage](#) (templateId: 2.16.840.1.113883.10.20.22.4.77)

Physical Exam Section Table

consol::PhysicalExamSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.2.10]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15398	LOINC 2.16.840.1.113883.6.1 29545-1
title	1..1	SHALL	ST	CONF:7808, R2.1=CONF:1198-7808	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.77]	0..*	MAY	HighestPressureUlcerStage	CONF:17098, CONF:17099	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.76]	0..*	MAY	NumberOfPressureUlcersObservation	CONF:17096, CONF:17097	
physicalExamSection	0..1	SHOULD	PhysicalExamSection	CONF:9495	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.70]	0..*	MAY	PressureUlcerObservation	CONF:17094, CONF:17095	
text	1..1	SHALL	StrucDocText	CONF:7809, R2.1=CONF:1198-7809	

Physical Exam Section Sample

The following XML snippet is a sample for Physical Exam Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.2.10"/>
  <code code="29545-1" codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" displayName="PHYSICAL EXAMINATION"/>
  <title>PHYSICAL EXAMINATION</title>
  <text>sAhCpw XUmlrM YyOqBcnw VTVrs VqZXY mPvdp ZnVWUqehb FAEWeWVT BEsxlU
    NSgXY NJUEFDRud obwHdu LIIGRZC lnVFsyU VbfXuiDq HxsZz ejpTXWp sbnmz XtDkTzj
    JgwwYZNAJ dkZTH HizKSW iFLyNNzEW pQNGD TtbRvcW awHEa feAUNE fJAuCfi
    tJukol blNULVG NpQKkWKb AZoLw EyOAoVtR QQHbDIZ zfZiIgD hqDwn zvLXGShxr DULSe
    LaEsKXGmS xrSSW HmFGa ziMrWFMay HzXMgRUw BeTWNjo NXzlLssk GUCfKiQG JErFU
    ktJogbIdk phqObNv MnvYaMCxw zkbZWuIy HOFVevbTY ICTxGv fTiSMI vLFUj
```

```

CckKU jmrJzHL obUhRz lDHWIurIf MUQfoe VBLnNJtK MoxOc ASYVtNV UVizWkrco
DJLINQg GgQsU ZpPwy obrivl xYXZUmxrS
YgNTzgmL ipGQN ttytus AWDij phmiSl dvudsCBl mzNVNTLN RlFmcYeW MrpMo uwBBECH
sZOmjv oeFrMV
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.70"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
          <code code="401238003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Length of Wound"/>
        </observation>
      </entryRelationship>
      <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
          <code code="401239006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Width of Wound"/>
        </observation>
      </entryRelationship>
      <entryRelationship typeCode="COMP">
        <observation classCode="OBS" moodCode="EVN">
          <code code="425094009" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Depth of Wound"/>
        </observation>
      </entryRelationship>
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.76"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.76"/>
      <code code="2264892003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="number of pressure ulcers"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <author/>
      <entryRelationship typeCode="SUBJ">
        <observation classCode="OBS" moodCode="EVN"/>
      </entryRelationship>
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.77"/>
      <code code="420905001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Highest Pressure Ulcer Stage"/>
      <text>Text Value</text>
    </observation>
  </entry>
</section>

```

Figure 41: Physical Exam Section example

Plan Of Care Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.10]

The Plan of Care section contains data that defines pending orders, interventions, encounters, services, and procedures for the patient. It is limited to prospective, unfulfilled, or incomplete orders and requests only, which 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 unless constrained due to privacy issues. The plan may also contain information about ongoing care of the patient and information regarding goals and clinical reminders. Clinical reminders are placed here to provide prompts for disease prevention and management, patient safety, and health-care quality improvements, including widely accepted performance measures. The plan may also indicate that patient education was given or will be provided.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10435) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.10"
2. **SHALL** contain exactly one [1..1] **code** (CONF:14749)/**@code**="18776-5" *Treatment plan* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14750)
3. **SHALL** contain exactly one [1..1] **title** (CONF:16986, R2.0=CONF:1098-16986)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7725, R2.0=CONF:1098-7725)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:7726.CONF:8804)
 - a. Conforms to [Plan Of Care Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.39)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8805, CONF:8806)
 - a. Conforms to [Plan Of Care Activity Encounter](#) (templateId: 2.16.840.1.113883.10.20.22.4.40)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8808, CONF:8807)
 - a. Conforms to [Plan Of Care Activity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.44)
8. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8809, CONF:8810)
 - a. Conforms to [Plan Of Care Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.41)
9. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8811, CONF:8812)
 - a. Conforms to [Plan Of Care Activity Substance Administration](#) (templateId: 2.16.840.1.113883.10.20.22.4.42)
10. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8813, CONF:14756)
 - a. Conforms to [Plan Of Care Activity Supply](#) (templateId: 2.16.840.1.113883.10.20.22.4.43)
11. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14695, CONF:16751)
 - a. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
1. **SHALL** contain exactly one [1..1] **code** (CONF:14749)/**@code**="18776-5" *Treatment plan* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14750)
2. **SHALL** contain exactly one [1..1] **title** (CONF:16986, R2.0=CONF:1098-16986)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7725, R2.0=CONF:1098-7725)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:7726.CONF:8804)
 - a. Conforms to [Plan Of Care Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.39)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8805, CONF:8806)
 - a. Conforms to [Plan Of Care Activity Encounter](#) (templateId: 2.16.840.1.113883.10.20.22.4.40)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8808, CONF:8807)
 - a. Conforms to [Plan Of Care Activity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.44)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8809, CONF:8810)
 - a. Conforms to [Plan Of Care Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.41)

8. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8811, CONF:8812)
 - a. Conforms to [Plan Of Care Activity Substance Administration](#) (templateId: 2.16.840.1.113883.10.20.22.4.42)
9. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8813, CONF:14756)
 - a. Conforms to [Plan Of Care Activity Supply](#) (templateId: 2.16.840.1.113883.10.20.22.4.43)
10. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:14695, CONF:16751)
 - a. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)

Plan Of Care Section Table

consol::PlanOfCareSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.10]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:14750	LOINC 2.16.840.1.113883.6.1 18776-5
title	1..1	SHALL	ST	CONF:16986R2.0=CONF:1098-16986	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.20]	0..*	MAY	Instructions	CONF:14695CONF:16751	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.39]	0..*	MAY	PlanOfCareActivityAct	CONF:7726.CONF:8804	
cda:entry/ cda:encounter[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.40]	0..*	MAY	PlanOfCareActivityEncounter	CONF:8805CONF:8806	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.44]	0..*	MAY	PlanOfCareActivityObservation	CONF:8808CONF:8807	
cda:entry/ cda:procedure[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.41]	0..*	MAY	PlanOfCareActivityProcedure	CONF:8809CONF:8810	
cda:entry/ cda:substanceAdministration[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.42]	0..*	MAY	PlanOfCareActivitySubstanceAdministration	CONF:8811CONF:8812	
cda:entry/ cda:supply[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.43]	0..*	MAY	PlanOfCareActivitySupply	CONF:8813CONF:14756	
planOfCareSection	1..1	SHALL	PlanOfCareSection	CONF:9550	
text	1..1	SHALL	StrucDocText	CONF:7725R2.0=CONF:1098-7725	

Plan Of Care Section Sample

The following XML snippet is a sample for Plan Of Care Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
```

```

<code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Treatment plan"/>
<title>Treatment plan</title>
<text>jyVXln yNawQWwDD kHyjDT CoIVqOl fueFIwAlv tXglLGsMx vuISPat iqqHEDF
mZZKwBHj PNcTQg iOHuJR ZsIDeRXil PDzHxPU eEhGLUGM fTrVYsHzG scpdGrfBd
JNDouCr mxJSp ZKNepXlm gSjpOeeQ HZFdxqFd NGddDs ZOkhRO PdicIfw NwmzN
FgLnRVsMk UtVfciv NzLjkObP djYTLUSKR QZyoIkhX hGnyfEuGk OSdCGRQL HwBOLXkf
jmUgU PTFYgP pvFnRzKgK xVTwG bLjdq zflIuhDg lvXfdIzgz ZKVTkG pQRPzw AMMNA
jeGLfva cZyGI JhnImxPi GLLJAO
pjoyIH UfvNUjKD yaIqc NjqkSJ PGRQOGiQv rcjpw EfxkAQEB xqFKE dajlVg wCCEZ
XwdnRe SPfpT VvVBm EILWbq gIKESqd oMgsj OlEULBeJf bmeYeaCll kkQdZpej
vaWiYTqn ompSu XKtTj SmJfjWy PNBXm wkSqXblCG nRMkvEd YmPxKdu pIlIWg UiqWO
oEAXViJwH OAhnB TbdGQDcgX iJMesdmp iepKRAhE buaQVuS csqse tVqCilck ijczN
oOuoiin gdWpoj INZQnxK LGacJntuS
Crpjt WwAABYn qspcBW HnFoCgr dUJBCepcQ lxmMCas zLYGKr BZWyd JwkyzCK
KYNOiuZAs mTcexWTAo lnAwEez QHVRyxFq TRbUr uWsJmNTgJ dRWzjsaH JkdQuBD
RpPbVW cCldPO wGclanFfm SacRTwVL SPWkZDvNo rNuZKy LVoQP krEBBv xdexKSnt
VxCdW VpSKJW qLXJvUE erqSAuHVb BcZqtrDXV uQckVOOR
BNnDH Annsfqx NiADCTGxF VjYsC mQyvcx diIXgG xymEynaI WttCTV pJOZMsf eisBnl
fJLPT DfBgSx WOWBvWOiL ersoX DTfvtTyf KzPYB xhMMc IavuGJn ZzfgdfvJv
MdSyOyAa hauXTLsdz GKrOYEx
</text>
<entry>
  <act classCode="ACT">
    <templateId root="2.16.840.1.113883.10.20.22.4.39"/>
    <code code="797727359"/>
    <text>Text Value</text>
  </act>
</entry>
<entry>
  <encounter classCode="ENC">
    <templateId root="2.16.840.1.113883.10.20.22.4.40"/>
    <code code="874657650"/>
    <text>Text Value</text>
  </encounter>
</entry>
<entry>
  <observation classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.22.4.44"/>
    <code code="10462835"/>
    <text>Text Value</text>
  </observation>
</entry>
<entry>
  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
    <code code="1089655982"/>
    <text>Text Value</text>
  </procedure>
</entry>
<entry>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.42"/>
    <code code="175219141"/>
    <text>Text Value</text>
    <consumable/>
  </substanceAdministration>
</entry>
<entry>
  <supply classCode="SPLY">
    <templateId root="2.16.840.1.113883.10.20.22.4.43"/>
    <code code="1488953777"/>
    <text>Text Value</text>
  </supply>

```

```

</entry>
<entry>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entry>
</section>

```

Figure 42: Plan Of Care Section example

Planned Procedure Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.30]

The Planned Procedure section records the procedure(s) that a clinician thought would need to be done based on the preoperative assessment. It may be important to record the procedure(s) that were originally planned for, consented to, and perhaps pre-approved by the payor, particularly if different from the actual procedure(s) and procedure details, to provide evidence to various stakeholders that the providers are aware of the discrepancy and the justification can be found in the procedure details.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8082, CONF:10436) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.30"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15399)/**@code**="59772-4" *Planned Procedure* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15400)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8084, R2.0=CONF:1098-8084)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8085, R2.0=CONF:1098-8085)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8744, CONF:8766)
 - a. Conforms to [Plan Of Care Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.41)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15399)/**@code**="59772-4" *Planned Procedure* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15400)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8084, R2.0=CONF:1098-8084)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8085, R2.0=CONF:1098-8085)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8744, CONF:8766)
 - a. Conforms to [Plan Of Care Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.41)

Planned Procedure Section Table

consol::PlannedProcedureSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.30]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15400	LOINC 2.16.840.1.113883.6.1 59772-4
title	1..1	SHALL	ST	CONF:8084R2.0=CONF:1098-8084	
plannedProcedureSection	0..1	MAY	PlannedProcedureSection	CONF:9906	
cda:entry/ cda:procedure[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.41]	0..*	MAY	PlanOfCareActivityProcedure	CONF:8744CONF:8766	

consol::PlannedProcedureSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.30]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
text	1..1	SHALL	StrucDocText	CONF:8085R2.0=CONF:1098-8085	

Planned Procedure Section Sample

The following XML snippet is a sample for Planned Procedure Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.30"/>
  <code code="59772-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Planned Procedure"/>
  <title>Planned Procedure</title>
  <text>aSylnJh dKfLUSN OqTrdVz sCSpb BEvHI AaiQi RMyVERK scMgI IzXweOC
ccWnoVFga fcSchE Rwwsougrrt tPmNr YqJVLANVI krcDPFzDb
</text>
  <entry>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
      <code code="1670385073"/>
      <text>Text Value</text>
    </procedure>
  </entry>
</section>
```

Figure 43: Planned Procedure Section example

Postoperative Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.35]

The Postoperative Diagnosis section records the diagnosis or diagnoses discovered or confirmed during the surgery. Often it is the same as the preoperative diagnosis.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8101, CONF:10437) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.35"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15401)/**@code**="10218-6" *Postoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15402)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8104)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8103)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15401)/**@code**="10218-6" *Postoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15402)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8103)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8104)

Postoperative Diagnosis Section Table

consol::PostoperativeDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.35]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15402	LOINC 2.16.840.1.113883.6.1 10218-6
title	1..1	SHALL	ST	CONF:8103	
postoperativeDiagnosisSection	1..1	SHALL	PostoperativeDiagnosisSection	CONF:9913	
text	1..1	SHALL	StrucDocText	CONF:8104	

Postoperative Diagnosis Section Sample

The following XML snippet is a sample for Postoperative Diagnosis Section

```
<section xmlns="urn:hl7-org:v3">
  <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>dMprP OTRMD LilkdxYn QvXMjdo fiMnS AVmTApwwk ZusLCBbR xXKiOXl nJdOP
cFUarn jWMimJAc bxqBhgBsN BLLbbUc qgXHGAHp OzTPtlV XHsdMMjGZ yOpskrAY
eCQvGo svzmfGp XIIFL klndmDeD QKZXnmvfb knpirBzJY kSsGn kmwSIt uXOKSvK
wJqlTxci TFPjSAu YHDHDX LtWxSKGVE qWQTIfW VpjdgxFwp PimWvX yQbEmgl
SvPWlc Drfvm OxXijQM pDbzFPm RxWzwfF ZSlpPey MNaJHFke VHpSAvSA KuNcmL
EVvoVFcWe YRRsBJqN FVfZpzy hkVIFH ddTVGpi kGmfWhYv Cfcizs YldyE lgDwPJN
</text>
</section>
```

Figure 44: Postoperative Diagnosis Section example

Postprocedure Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.36]

The Postprocedure Diagnosis section records the diagnosis or diagnoses discovered or confirmed during the procedure. Often it is the same as the pre-procedure diagnosis or indication.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8167, CONF:10438) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.36"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15403)/**@code**="59769-0" *Postprocedure Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15404)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:8170, R2.1=CONF:1198-8170)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:8171, R2.1=CONF:1198-8171)
 5. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:8762, CONF:8764)
 - a. Conforms to [Postprocedure Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.51)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15403)/**@code**="59769-0" *Postprocedure Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15404)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8170, R2.1=CONF:1198-8170)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8171, R2.1=CONF:1198-8171)

4. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:8762, CONF:8764)
 - a. Conforms to [Postprocedure Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.51)

Postprocedure Diagnosis Section Table

consol::PostprocedureDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.36]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15404	LOINC 2.16.840.1.113883.6.1 59769-0
title	1..1	SHALL	ST	CONF:8170, R2.1=CONF:1198-8170	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.51]	0..1	SHOULD	PostprocedureDiagnosis	CONF:8762, CONF:8764	
postprocedureDiagnosisSection	1..1	SHALL	PostprocedureDiagnosisSection	CONF:9850	
text	1..1	SHALL	StrucDocText	CONF:8171, R2.1=CONF:1198-8171	

Postprocedure Diagnosis Section Sample

The following XML snippet is a sample for Postprocedure Diagnosis Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.36"/>
  <code code="59769-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Postprocedure Diagnosis"/>
  <title>Postprocedure Diagnosis</title>
  <text>xaEqrpy QEqJFekVw zZyWlURL tvZeVgSM YWjYE lfagCqSJ WQsGf kRipQjKrc
exGbHvug DodIgfte lPCsRG TqcWb UgffWU cGFviu GSTHBy ucNPBCmHY XibmOP puUSU
PTzXSmw QziomhLQg amrhsOGL ONZvMdM YqLEesrlX gCTpupYwv jrtSu IrmAPjOxJ
JcOAenb iUdkDDpM Vnyne KfVtMnY GJwmrSyOD YKLXU PhtIt zNifItP taoHC VyzCIPvt
MTuXHegv MJFQuWri fXnYpBkf dotcOTAsD BmMCzJLy
yPrOWN USHgK qwLRfpK oqaiVX GznkQVhL daOEKOPmq TyaVFyxTk xcHvpGfu lJgNaFpEI
DfqGqZg YimAPS jApmhJjzx OfEKdlZ xUiJzQI gahUyN
PXNyaV dBnKC VoHMHVKrN exQLQn iECNLqkq HdnNvowE nmyjWSK iLKuPZP yOyVMn rbDaR
PTckTfXEF xVHyZ qvioQKWd kHPmSYH jmKfzLD BWAdDuVr biGwkjxL ARrmzTf UGNkisDX
VoLaKsSSF YJvJZ XXtWsKSjE QPpvgOUKU QOIogdLb sBMMt UxaZEE mAZUx dvjAtZOE
testCdZ XxCKJl VkcAhpCQJ MVfZY ZWJDGKP OTphmJeoE NmaUIC PpSVtZnFT gyDRQQQ
DotZZebK rTeMB prUEq FroXuuchS lplamQgvt DLyrr
HLoPkhPui zEnbeHvll RsGrZ lEzYElOG AzAxBVNwu iUHjZd FwJJXhHx fXWsEYYO
JFTqbuZ OgnfvR CvawxR XliDFG jimdZQwu BWqaun UtCjrLaW
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.51"/>
      <code code="59769-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Postprocedure Diagnosis"/>
      <text>Text Value</text>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <text>Text Value</text>
          <statusCode code="completed"/>

```

```

    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
        <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <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"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 45: Postprocedure Diagnosis Section example

Preoperative Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.34]

The Preoperative Diagnosis section records 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8097, CONF:10439) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.34"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15405)/**@code**="10219-4" *Preoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15406)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8099, R2.1=CONF:1198-8099)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8100, R2.1=CONF:1198-8100)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10096, CONF:10097)
 - a. Conforms to [Preoperative Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.65)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15405)/**@code**="10219-4" *Preoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15406)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8099, R2.1=CONF:1198-8099)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8100, R2.1=CONF:1198-8100)
4. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10096, CONF:10097)
 - a. Conforms to [Preoperative Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.65)

Preoperative Diagnosis Section Table

consol::PreoperativeDiagnosisSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.34]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15406	LOINC 2.16.840.1.113883.6.1 10219-4
title	1..1	SHALL	ST	CONF:8099, R2.1=CONF:1198-8099	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.65]	0..1	SHOULD	PreoperativeDiagnosis	CONF:10096, CONF:10097	
preoperativeDiagnosisSection	1..1	SHALL	PreoperativeDiagnosisSection	CONF:9888	
text	1..1	SHALL	StrucDocText	CONF:8100, R2.1=CONF:1198-8100	

Preoperative Diagnosis Section Sample

The following XML snippet is a sample for Preoperative Diagnosis Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.34"/>
  <code code="10219-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Preoperative Diagnosis"/>
  <title>Preoperative Diagnosis</title>
  <text>iYIZHq sZWtAZ sQmSJdVzu OtpILBV yvXXdo kNrCD FLovzUnz YeiQfsqf ovxFL
DZcKO jWTcZOof YsIIApoB VGzvjLUpl HcYxGcF UwMtDk jFDKnfbr sAEqaVs ugJylTix
faCtygdz pOJAoW mYuxr oiESNJd bShogt vnmzxc iWOYc VmIrm oeyWPAY
MXBEFP fpDILGaNy lLTwKjgHL KmoeEv EvVtiuZt xyFRF ksEiRXxLV HMYmmAo nQWesE
kLlfsDLxl EOPDVdArJ AnXvlnJD GCqtslxUx yMLpFQWP IhYGXpkz bpqpTpu KjiuAPl
dQCSy VVFatT evRGH mtHtlnL Yoakyh zbDspF kkmdBQWEO bltDUoH AJsfZ KZuScXAQh
zUOyc FIGefpdw DzjznAHTC Dfvtpi VpRYxfo dPxmCELjm
MkvXhmceo XzyNT dNXUEKg XZYPXv xLZzXQL DbCLGhxkV KpbeFxMnR YGywrrerC
RZzzDLdrq YaAWChK GCozcvc BxnjIKnD DSQnqn pQLZCkb uDJNDryj gyvgRD GAFnkhccu
uCdGFObP FyRTM UqKrp jOHnJK ydvuF HwWRJkB KTuzCFmq MAOdpdSbe HwPzTcYvS
ByLKyBH Yrqnnazy OoZqNDmZt dkylgdh lXTaWN slccGfo vuAOcns nGGFrz kUjhlAm
RlimUjyl oUaIkbcY ExVDOTm eYsqJV nCQLoCi GgDdw rtEoouccD lltknk JhYqQX lTiaz
sSrVPyhY VuTkngNGJE HpbsAcW Ipsyxljh mXDbbl viZYmnQu FBMAthg
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.65"/>
      <code code="10219-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Preoperative Diagnosis"/>
      <text>Text Value</text>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <statusCode code="completed"/>
        </entryRelationship>
      </observation>
    </act>
  </entry>
</section>
```

```

        </observation>
      </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <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"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 46: Preoperative Diagnosis Section example

Problems

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.

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.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.5]

The following constraints apply to a Problems in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7877) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.5"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15407)/**@code**="11450-4" *Problem List* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15408)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7879, R2.1=CONF:1198-7879)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7880, R2.1=CONF:1198-7880)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7882)
 - a. Conforms to [Problem Concern Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.3)

Required Entries

The following constraints apply to a Problems in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9179) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.5.1"
2. **SHALL** conform to [Problem Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.5)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15409)/**@code**="11450-4" *Problem List* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15410)

4. **SHALL** contain exactly one [1..1] **text** (CONF:9182)
5. **SHALL** contain exactly one [1..1] **title** (CONF:9181)
6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:9183)
 - a. Conforms to [Problem Concern Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.3)

Problems Table

consol::ProblemSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.5]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15410	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 11450-4
title	1..1	SHALL	ST	CONF:9181	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.3]	1..*	SHALL	ProblemConcernAct	CONF:9183	
problemSection	1..1	SHALL	ProblemSection	CONF:9449	
text	1..1	SHALL	StrucDocText	CONF:9182	

Problems Sample

The following XML snippet is a sample for Problem Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.5.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.5"/>
  <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Problem List"/>
  <title>Problem List</title>
  <text>vDoqkYcV zWHbTy Lgvnrk CLDcJlW vLodVUjjS UHxazbf CkxCU mjfjG ueXDab
oNqgPG MKXbMgNI vOYpS fYhrJkexF fBCCDTrk Qfcjtf gRIjrGYu fdcyi gSIDIzkP
OWhwSXo nSdOu
cJMtqhLbp RVDpKRUw WGXaS cHTNNyrPZ adNUbs HJWEI ouMcD OGeqFDV ZGiBDX yTtVr
ZmcBl JTumHff ltkLV
</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.3"/>
      <code code="CONC" codeSystem="2.16.840.1.113883.5.6"
codeSystemName="HL7ActClass" displayName="Concern"/>
      <text>Text Value</text>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
          <entryRelationship>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
              <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
              <statusCode code="completed"/>
            </observation>
          </entryRelationship>
        </observation>
      </entryRelationship>
    </act>
  </entry>
</section>
```

```

</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
    <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <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"/>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>
</entry>
</section>

```

Figure 47: Problem Section Entries Optional example

Procedure Description Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.27]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8062, CONF:10442) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.27"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15411)/**@code**="29554-3" *Procedure Description* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15412)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8065)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:8064)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15411)/**@code**="29554-3" *Procedure Description* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15412)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8064)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8065)

Procedure Description Section Table

consol::ProcedureDescriptionSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.27]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15412	LOINC 2.16.840.1.113883.6.1 29554-3

consol::ProcedureDescriptionSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.27]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
title	1..1	SHALL	ST	CONF:8064	
procedureDescriptionSection	1..1	SHALL	ProcedureDescriptionSection	CONF:9896	
text	1..1	SHALL	StrucDocText	CONF:8065	

Procedure Description Section Sample

The following XML snippet is a sample for Procedure Description Section

```
<section xmlns="urn:hl7-org:v3">
  <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>jpxLh aaWyiBWNn LzWYUIK bljFeZj HXtAuR djhGBux QYLwx WGKXQbOV
NtLcEHbt ogrRLQv rJLeET wZBYTUuyG IhLwHThD gNoilR wDcgX xTNIA
RTQCwtqb MKgYXjAIE FAFlwHRWq WPSrI ITtma GqsIw wEyyElg MIhjpkb YTFvuYqki
DHjFNZ WJOnMpnL DVNNXIFe vpvTW FMDAwKSUO nRmQIRjp cWmhFFrhk cNPVAIU vETlF
nnSuX TOASKiq KyyfaNThu IzZdrUa PqtmvDly myGYAj bXUAGn XjtEDDcuw ACrts
NoZGsA eCGNLPa NmTrnB NbSTkPAL hoPzJKqY
</text>
</section>
```

Figure 48: Procedure Description Section example

Procedure Disposition Section

[Section: templateId 2.16.840.1.113883.10.20.18.2.12]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8070, CONF:10466) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.18.2.12"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15413)/**@code**="59775-7" *Procedure Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15414)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8073)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:8072)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15413)/**@code**="59775-7" *Procedure Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15414)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8072)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8073)

Procedure Disposition Section Table

consol::ProcedureDispositionSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.18.2.12]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15414	LOINC 2.16.840.1.113883.6.1 59775-7
title	1..1	SHALL	ST	CONF:8072	
procedureDispositionSection	0..1	MAY	ProcedureDispositionSection	CONF:9908	
text	1..1	SHALL	StrucDocText	CONF:8073	

Procedure Disposition Section Sample

The following XML snippet is a sample for Procedure Disposition Section

```
<section xmlns="urn:hl7-org:v3">
  <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>kxwcTf dnhfIRIFa cnPxqTL GVNYgy RZcmR ikPdlNh slKrL qsTgvEuGi jwSZLx
    SnZlXX qsKmq sDyXZUB btFKxPdk wYrmPympU QBMMB dzhQMAI ZrjVKWN mimPtmnxp
    dAmqnPm pbywiMGCP EwSpQ lWiWh WvRASElt SnSnz isXOTjv kcLyeLNrL JQKDMunYn
    CTGqXz CMLpuwq iCRDswPm goHjK erXLmz WKLwhMlN SojBD
    oOgjOgqXE TJiiHGB qCwLY EduFQAN QHaHX DLGfwZl UdPDxMuE ahDPmz QUweBwe
    EZkmbeOC xLMzLPH DnZsWUCgo vOchWac tQSVhwl BvDam yuItxPXIW MCZKakNvT LtLCEi
    aOSAeRCUG QedCfCf JwusWoXF DZdRdp uGsYvEoff
  </text>
</section>
```

Figure 49: Procedure Disposition Section example

Procedure Estimated Blood Loss Section

[Section: templateId 2.16.840.1.113883.10.20.18.2.9]

The Estimated Blood Loss section may be a subsection of another section such as the Procedure Description section. The 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".

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8074, CONF:10467) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.18.2.9"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15415)/**@code**="59770-8" *Procedure Estimated Blood Loss* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15416)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8077)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8076)
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:8741)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15415)/**@code**="59770-8" *Procedure Estimated Blood Loss* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15416)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8076)

3. **SHALL** contain exactly one [1..1] **text** (CONF:8077)
4. 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:8741)

Procedure Estimated Blood Loss Section Table

consol::ProcedureEstimatedBloodLossSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.18.2.9]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15416	LOINC 2.16.840.1.113883.6.1 59770-8
title	1..1	SHALL	ST	CONF:8076	
procedureEstimatedBloodLossSection	1..1	SHALL	ProcedureEstimatedBloodLossSection	CONF:8076	
text	1..1	SHALL	StrucDocText	CONF:8077	

Procedure Estimated Blood Loss Section Sample

The following XML snippet is a sample for Procedure Estimated Blood Loss Section

```
<section xmlns="urn:hl7-org:v3">
  <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>RkeLUCH CFZVsl qruvnAPW uDHqn SUrCgW ghGcdNag gRpCdIs iikwA pHgHmbp
LzStR XwYQSnkiJ YeUDnC PlNns kXFWYg kUoIJ eVfVQ PgKsQ VUxHEeEz1 aDmwTnMig
MdUwvwig jbgHMZ qqKeJqfG FFzfIqzH eFxJdq YPGLCPWCm HiOTZLIi VNYrCpd ZrXnzSB
MOPdZl vGPqY ybFdjXf dYuLvzxI fPnIAfGHp neEpiq tiVYNUp CJBfCW r xWnKFidaX
KwxAaQP KuxMxx AySvLQBbL qKxQX gSekm EhyFIO yafBoxQQr vobQwn lNjiVwCh
EdVrvNUcJ iMtHtJ xBJxNGR OxeSlfdH aEgnkia ZUYmzPaD ehgJbpzrC jJhuS
SacWAE yckoBeNdc jCbMAqnZ fisQmv JLrucI FxLxZni yCLAJn qnCrCxO cFReBO ywqEIQ
bFdjPH KawaFrR sZgceINFZ JuSHLwG EcBbMjUON psHzdf qgSuXa yPUHX PcTwb
VRjGUNy uIheHt znkHU kFiAhsYW MASrh MKKefMw LWgeWK ELTLxNKJ dkxdjDD eBTHte
iHXzHo cabybQn lixpGeVYM thrNaz BPMIynkz
wDgZiIovY mlsxMM DuRLpP oCjoaDK ALlGn gSSbCjNn aqXmx wNlUzHtJe yoGWKmmMn
pdPuc iSgWYew sbiyereg NUaqU NwToOpE nwUXGwk xmrpba GDdyqBj tDGWkaQJv
kOPSk ZotksV WfocGMeS Tcpci PSsTbYS EQovyMT lVrRNE GWTctl PadCydsN YSIkDp
NJwpwtLG mIczNJ KqeUM
</text>
</section>
```

Figure 50: Procedure Estimated Blood Loss Section example

Procedure Findings Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.28]

The Procedure Findings section records clinically significant observations confirmed or discovered during the procedure or surgery.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8078) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.28"

2. **SHALL** contain exactly one [1..1] **code** (CONF:15417)/@code="59776-5" *Procedure Findings* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15418)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8080, R2.1=CONF:1198-8080)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8081, R2.1=CONF:1198-8081)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8090, CONF:8091)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15417)/@code="59776-5" *Procedure Findings* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15418)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8080, R2.1=CONF:1198-8080)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8081, R2.1=CONF:1198-8081)
4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8090, CONF:8091)
 - a. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

Procedure Findings Section Table

consol::ProcedureFindingsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.28]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15418	LOINC 2.16.840.1.113883.6.1 59776-5
title	1..1	SHALL	ST	CONF:8080, R2.1=CONF:1198-8080	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.4]	0..*	MAY	ProblemObservation	CONF:8090, CONF:8091	
procedureFindingsSection	1..1	SHALL	ProcedureFindingsSection	CONF:9892	
text	1..1	SHALL	StrucDocText	CONF:8081, R2.1=CONF:1198-8081	

Procedure Findings Section Sample

The following XML snippet is a sample for Procedure Findings Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.28"/>
  <code code="59776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure Findings"/>
  <title>Procedure Findings</title>
  <text>WJJanqk wLljJES LgNEh EazQxK SmeCX cWyDC sanfZ IFQHyJeWp UevNePv
RtZvvYB fUrPQ VsqLg ZegrMEHpy MekRmEft b1XHKpf QVrqCqCd aKdbOgY lPoCaqcR
wkTxsKiPp Cndtmwhg OmvrT LDipp NxhangyRb clbZiuA eqyXjzIKM oyPalFN nQltojZM
cbSGV MWNIS wTrwZ mixuZZJvV MpFFO LGyWocXbY qYkTG ZukQMLVP HbCgHFcTY
sQtwrtJr sYIVJ fvKLuRa EfNgy RhPNdD
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
```



```

        <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
        <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <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>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
</observation>
</entry>
</section>

```

Figure 51: Procedure Findings Section example

Procedure Implants Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.40]

The Procedure Implants section records any materials placed during the procedure including stents, tubes, and drains.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8178, CONF:10444) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.40"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15373)/**@code**="59771-6" *Procedure Implants* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15374)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8181)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8180)
5. The Implants section **SHALL** include a statement providing details of the implants placed, or assert no implants were placed (CONF:8769)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:15373)/**@code**="59771-6" *Procedure Implants* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15374)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8180)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8181)
 4. The Implants section **SHALL** include a statement providing details of the implants placed, or assert no implants were placed (CONF:8769)

Procedure Implants Section Table

consol::ProcedureImplantsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.40]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15374	LOINC 2.16.840.1.113883.6.1 59771-6
title	1..1	SHALL	ST	CONF:8180	
procedureImplantsSection	0..1	MAY	ProcedureImplantsSection	CONF:9898	
text	1..1	SHALL	StrucDocText	CONF:8181	

Procedure Implants Section Sample

The following XML snippet is a sample for Procedure Implants Section

```
<section xmlns="urn:hl7-org:v3">
  <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>rCoGV iLHRW kMvtsSX GcNUG gJRBT qLbFfybC NixpjHnti AuxrawTOb rttGQdr
    CrtmdQpcq qSpNiPMD FABnJB aIWLXvBOG LbXrXzAa bTHYF xCJsClrY
    OBIyYjB NFuJdb MdYDZ axbGF himFCOI urLpYevkn AISTEp YlbQHlur GdMOi Enuxjemte
    Xeidl nTsitwsD LVAHz eQLLrkrHt mTozNO wOeafmLN xSCEZuI VfAjLalN ijlXMH
    WblhNI licpIcaUE XUjuU dgRDv
  </text>
</section>
```

Figure 52: Procedure Implants Section example

Procedure Indications Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.29]

The Procedure Indications section records details about the reason for the procedure or surgery. This section may include the pre-procedure diagnosis or diagnoses as well as one or more symptoms that contribute to the reason the procedure is being performed.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8058, CONF:10445) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.29"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15419)/**@code**="59768-2" *Procedure Indications* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15420)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:8060, R2.0=CONF:1098-8060)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:8061, R2.0=CONF:1098-8061)
 5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8743, CONF:8765)
 - a. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15419)/**@code**="59768-2" *Procedure Indications* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15420)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8060, R2.0=CONF:1098-8060)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8061, R2.0=CONF:1098-8061)

4. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8743, CONF:8765)
 - a. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)

Procedure Indications Section Table

consol::ProcedureIndicationsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.29]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15420	LOINC 2.16.840.1.113883.6.1 59768-2
title	1..1	SHALL	ST	CONF:8060R2.0=CONF:1098-8060	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.19]	0..*	MAY	Indication	CONF:8743CONF:8765	
procedureIndicationsSection	0..1	MAY	ProcedureIndicationsSection	CONF:9910	
text	1..1	SHALL	StrucDocText	CONF:8061R2.0=CONF:1098-8061	

Procedure Indications Section Sample

The following XML snippet is a sample for Procedure Indications Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.29"/>
  <code code="59768-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure Indications"/>
  <title>Procedure Indications</title>
  <text>NIjxHfb LbLjPcE qHrDQkkz cMjquFtoM qFCGqF vJQKsQn EvItIwS ZqbWxO
gBDFDo OEIts sriEvRrW OfBiwYC MDbifCEgd ZGhDyoUse CdZDJYtwi fATEwlJKN
fAPblW vVpiMh VPtHwV mtvTepO zkAbkYlO HKkUoV fTRpp YljUMp LFsGydLI AwfmCFr
JYInz SQxROXsg jZMVp wwOfIkB HhLlBbNv pjFqcKpDR aVceurCk OfjUwnyTj xsLZPybr
jUfeJAcIv IZVTxNh kaOhVJ ZdtcQFW rSHLYS YaPppGRLn CFPwvoit TSKUZY iMVXcch
ACwVceAYH iuoVDhI RoMPqms qbqyNbaRN SHKdspgDh Zwvzp kHouNxYb niIiHsfGK
tWGWBG chRbtuk qNSoauXT ebhzWBhd dqROLzqGW HlRAVq NvRKULz hlHSjy mewmcQd
FkZCU iIgRmn ozYvdtgWb mTDIDHH sRTjfft ZYDPQfAse RAMjPU oLetk WlWMPdjC
RMYTACgzE quBKn IIURGm VnxFgY JyQWo hQWsZhddp tymwGs QoLkPjH EKhegyTQ
WvbTADaNQ FJBiPDSxg AZQrxJekt
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entry>
</section>

```

Figure 53: Procedure Indications Section example

Procedure Specimens Taken Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.31]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8086, CONF:10446) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.31"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15421)/**@code**="59773-2" *Procedure Specimens Taken* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15422)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8089)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:8088)
 5. The Procedure Specimens Taken section **SHALL** list all specimens removed or **SHALL** explicitly state that no specimens were taken. (CONF:8742)
-
1. **SHALL** contain exactly one [1..1] **code** (CONF:15421)/**@code**="59773-2" *Procedure Specimens Taken* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15422)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:8088)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:8089)
 4. The Procedure Specimens Taken section **SHALL** list all specimens removed or **SHALL** explicitly state that no specimens were taken. (CONF:8742)

Procedure Specimens Taken Section Table

consol::ProcedureSpecimensTakenSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.31]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15422	LOINC 2.16.840.1.113883.6.1 59773-2
title	1..1	SHALL	ST	CONF:8088	
procedureSpecimensTakenSection	1..1	SHALL	ProcedureSpecimensTakenSection	CONF:8089	
text	1..1	SHALL	StrucDocText	CONF:8089	

Procedure Specimens Taken Section Sample

The following XML snippet is a sample for Procedure Specimens Taken Section

```
<section xmlns="urn:hl7-org:v3">
  <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>eeKfAyF ATHXNMCHX hbnQSPS bKHfjIZBH cbkwYHVA dWtdtm VIzDufxPl
yhVIAEIVF mJdvwXIY XsOksOFD yamWgmULg NVpqmDB kprMrpG QRLVfQN wsyGDqE FfWBL
FOjTA uUYqqkQxz hGyqjS wrQeHIWoo
gbwWxhVcU khKZGdGJ EGQGuZQH jetAi dwEMs XZSXUV meqUFKt tmxpBE mCNinLH
ZYEjTmVzw BpvIiAFX BiwqId WRDDLafFL ldeKlLuk orLUU LYTDD MamZva EXMhYvq
lvHJt ileMzUr dYhxMAV iOiWfN IvfdQYEX ESqCBT jmSlR pzUKouIx IfGKUzm vawvU
sZSZYF cJDcz TKlTNyI CawhUoEt QsWZfxt prvuKVpDU
</text>
```

```
</section>
```

Figure 54: Procedure Specimens Taken Section example

Procedures Section

This section defines all interventional, surgical, diagnostic, or therapeutic procedures or treatments pertinent to the patient historically at the time the document is generated. The section is intended to 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 (Splenectomy). Observation act is for procedures that result in new information about a patient but do not cause physical alteration (EEG). Act is for all other types of procedures (dressing change). The length of an encounter is documented in the documentationOf/encompassingEncounter/effectiveTime and length of service in documentationOf/ServiceEvent/effectiveTime.

This section defines all interventional, surgical, diagnostic, or therapeutic procedures or treatments pertinent to the patient historically at the time the document is generated. The section is intended to 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 (Splenectomy). Observation act is for procedures that result in new information about a patient but do not cause physical alteration (EEG). Act is for all other types of procedures (dressing change). The length of an encounter is documented in the documentationOf/encompassingEncounter/effectiveTime and length of service in documentationOf/ServiceEvent/effectiveTime.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.7]

The following constraints apply to a Procedures Section in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:6271) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.7"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15423)/**@code**="47519-4" *History of Procedures* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15424)
3. **SHALL** contain exactly one [1..1] **title** (CONF:17184, R2.0=CONF:1098-17184)
4. **SHALL** contain exactly one [1..1] **text** (CONF:6273, R2.0=CONF:1098-6273)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:6274, CONF:15509)
 - a. Conforms to [Procedure Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.14)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:6278, CONF:15510)
 - a. Conforms to [Procedure Activity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.13)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8533, CONF:15511)
 - a. Conforms to [Procedure Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.12)

Required Entries

The following constraints apply to a Procedures Section in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10447) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.7.1"
2. **SHALL** conform to [Procedures Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.7)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7893)

4. **SHALL** contain exactly one [1..1] **code** (CONF:15425)/@code="47519-4" *History of procedures* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15426)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7894)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:7895, CONF:7896)
 - a. Conforms to [Procedure Activity Procedure](#) (templateId: 2.16.840.1.113883.10.20.22.4.14)
7. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8017, CONF:8018)
 - a. Conforms to [Procedure Activity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.13)
8. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:8019, CONF:8020)
 - a. Conforms to [Procedure Activity Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.12)
9. If section/@nullFlavor is not present in the Procedure Section, there **SHALL** be at least one procedure, observation or act entry conformant to Procedure Activity Procedure template, Procedure Activity Observation template or Procedure Activity Act template in the Procedure Section. (CONF:8021)

Procedures Section Table

consol::ProceduresSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.7]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15426	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 47519-4
title	1..1	SHALL	ST	CONF:7893	
cda:entry/ cda:act[cda:templateId/@root = 2.16.840.1.113883.10.20.22.4.12]	0..*	MAY	ProcedureActivityAct	CONF:8019CONF:8020	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.13]	0..*	MAY	ProcedureActivityObservation	CONF:8017CONF:8018	
cda:entry/ cda:procedure[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.14]	0..*	MAY	ProcedureActivityProcedure	CONF:7895CONF:7896	
proceduresSection	1..1	SHALL	ProceduresSection	CONF:9451	
text	1..1	SHALL	StrucDocText	CONF:7894	

Procedures Section Sample

The following XML snippet is a sample for Procedures Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
  <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of Procedures"/>
  <title>History of Procedures</title>
  <text>dmZGzoSWH UUfCVLXyL HxHjELJJr ekAuio zHtzwYA LCjZnsrAb NiwJs
cMnTzbSC KyyVFgQ pnwaFw BBeJrgkL izvvneUq uSoTde ikwuz LxzWcCzC CnAue
xLCSIIqP qEkZybT IogIhJ ChChY KXWvcInAV ihUKJlU
</text>
  <entry>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
```

```

<code code="1650288056"/>
<text>Text Value</text>
<priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
<targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
<specimen>
  <specimenRole/>
</specimen>
<performer>
  <assignedEntity/>
</performer>
<entryRelationship typeCode="COMP" inversionInd="true">
  <encounter classCode="ENC" moodCode="EVN"/>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <code code="2077470673"/>
    <text>Text Value</text>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable/>
    <performer/>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>

```

```

        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</procedure>
</entry>
<entry>
  <observation classCode="OBS">
    <templateId root="2.16.840.1.113883.10.20.22.4.13"/>
    <code code="538914877"/>
    <text>Text Value</text>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <performer>
      <assignedEntity/>
    </performer>
    <entryRelationship typeCode="COMP" inversionInd="true">
      <encounter classCode="ENC" moodCode="EVN"/>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <substanceAdministration classCode="SBADM">
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <code code="8388859"/>
        <text>Text Value</text>
        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>

```



```

    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable/>
    <performer/>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
</observation>
</entry>
<entry>
  <act classCode="ACT">
    <templateId root="2.16.840.1.113883.10.20.22.4.12"/>
    <code code="624828332"/>
    <text>Text Value</text>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <performer>
      <assignedEntity/>
    </performer>
    <entryRelationship typeCode="COMP" inversionInd="true">
      <encounter classCode="ENC" moodCode="EVN"/>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>

```

```

        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <substanceAdministration classCode="SBADM">
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <code code="2141048285"/>
        <text>Text Value</text>
        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <consumable/>
        <performer/>
      </substanceAdministration>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
      </supply>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
</act>

```

```
</entry>
</section>
```

Figure 55: Procedures Section Entries Optional example

Reason For Referral Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.1]

A Reason for Referral section records the reason the patient is being referred for a consultation by a provider. An optional Chief Complaint section may capture the patient's description of the reason for the consultation.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10468) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.1"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15427)/**@code**="42349-1" *REASON FOR REFERRAL* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15428)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7846, R2.0=CONF:1098-7846)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7847, R2.0=CONF:1098-7847)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15427)/**@code**="42349-1" *REASON FOR REFERRAL* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15428)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7846, R2.0=CONF:1098-7846)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7847, R2.0=CONF:1098-7847)

Reason For Referral Section Table

consol::ReasonForReferralSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.1]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15428	LOINC 2.16.840.1.113883.6.1 42349-1
title	1..1	SHALL	ST	CONF:7846R2.0=CONF:1098-7846	
reasonForReferralSection	0..1	MAY	ReasonForReferralSection	CONF:9498	
text	1..1	SHALL	StrucDocText	CONF:7847R2.0=CONF:1098-7847	

Reason For Referral Section Sample

The following XML snippet is a sample for Reason For Referral Section

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.1"/>
  <code code="42349-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="REASON FOR REFERRAL"/>
  <title>REASON FOR REFERRAL</title>
  <text>CLQyaUJF JgEWYKvI nUrPzOfW ckKGKts XDalJpVl PVCskieZq zTpdPe
EbckIprij bMxQiiAq hbFgGPH oFfxpi pNuFICguI RNAljab sgQqG AfrfEAb WMiWEon
tpExHeak wrwltAA xGKSLu UqoZPZNJ InbFHeut WdVBqP WXAiVCU ccLuA vTBZbz1
fFFqT GIJcGW XoRtSN YBHLpEkvU xmXJu zyJPhJgg kKvFdBxM YqefhjxcM CsiMSv
LSsmaaVCq VPLlFF aXqQqV iEQPpT fblam SZOoUREun cECAeV fIFcj PzWnEYG onsXI
PPIVBK vcktsJD Njxkm KEcSck QSSsUN
ODBndMeek cSiPri bAdGHVEOK qSLWcYO XUICy CMGTgmjj lznBB Gycrkx uoZzvs
vtyTxszoG GalycsRo tokkazj vtIwuGS eIVbDDzW afsXUelPJ GxaLeheWW InGiT
gJIwbw
```

```

BPyYvoL nilmHN SIzCNx KcLeYpZ lRAJXhC vTvUag RhSLPIe jJOkEf BGTWo dBEOb
zDKVt
</text>
</section>

```

Figure 56: Reason For Referral Section example

Reason For Visit Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.12]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7836, CONF:10448) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.12"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15429)/**@code**="29299-5" *Reason for Visit* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15430)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7839)
 4. **SHALL** contain exactly one [1..1] **title** (CONF:7838)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15429)/**@code**="29299-5" *Reason for Visit* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15430)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7838)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7839)

Reason For Visit Section Table

consol::ReasonForVisitSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.12]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15430	LOINC 2.16.840.1.113883.6.1 29299-5
title	1..1	SHALL	ST	CONF:7838	
reasonForVisitSection	0..1	MAY	ReasonForVisitSection	CONF:9578	
text	1..1	SHALL	StrucDocText	CONF:7839	

Reason For Visit Section Sample

The following XML snippet is a sample for Reason For Visit Section

```

<section xmlns="urn:hl7-org:v3">
  <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>GQZzIwT Ouvbp pYakZw eycAAU IUGYd KpGfRA HIAGqvgGg cKRbFiv yvJIHA
TfLDh utMPUSRo lyMPp YeufNJdj IihdXTW nuOfEa iMBtyADg ZtEbpF kQJqTJmY
LARFZfpxJ
</text>
</section>

```

Figure 57: Reason For Visit Section example

Results

The Results section contains the results of observations generated by laboratories, imaging procedures, and other procedures. 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.

The Results section contains the results of observations generated by laboratories, imaging procedures, and other procedures. 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.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.3]

The following constraints apply to a Results in which entries are not required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7116, CONF:9136) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.3"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15431)/**@code**="30954-2" *Relevant diagnostic tests and/or laboratory data* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15432)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8891, R2.1=CONF:1198-8891)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7118, R2.1=CONF:1198-7118)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7119, CONF:7120)
 - a. Conforms to [Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.1)

Required Entries

The following constraints apply to a Results in which entries are required.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7108, CONF:9137) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.3.1"
2. **SHALL** conform to [Results Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.3)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15433)/**@code**="30954-2" *Relevant diagnostic tests and/or laboratory data* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15434)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8892)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7111)

6. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:7112, CONF:7113)
- a. Conforms to [Result Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.1)

Results Table

consol::ResultsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.3]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15434	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 30954-2
title	1..1	SHALL	ST	CONF:8892	
cda:entry/ cda:organizer[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.1]	1..*	SHALL	ResultOrganizer	CONF:7112CONF:7113	
resultsSection	1..1	SHALL	ResultsSection	CONF:9453	
text	1..1	SHALL	StrucDocText	CONF:7111	

Results Sample

The following XML snippet is a sample for Results Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
  <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
laboratory data"/>
  <title>Relevant diagnostic tests and/or laboratory data</title>
  <text>HjUWU zECqD QRshcSza AXbBULLA TzAAEjmaj UQdQpVRYw MRzfp AtVpAkwa
ujmJh LtLktXAp vwxrswQ ymOCoiqE PgFnPWrs yBXybSo QYXcos pKjjdZCXA axMmyBvaV
UDlBZvPt YiuUFpCL QTYWvxVCr QkSDz MaswWs aBdClcALV IXvabcRK xTdLgafyK
egGAwnD CDycEXoi WtXDUWYbC
</text>
  <entry>
    <organizer moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <code code="324324320"/>
      <statusCode code="completed"/>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
          <code code="212169950"/>
          <text>Text Value</text>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
```

Figure 58: Results Section Entries Optional example

Review Of Systems Section

[Section: templateId 1.3.6.1.4.1.19376.1.5.3.1.3.18]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10469) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.5.3.1.3.18"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15435)/**@code**="10187-3" *REVIEW OF SYSTEMS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15436)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7814)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7815)
1. **SHALL** contain exactly one [1..1] **code** (CONF:15435)/**@code**="10187-3" *REVIEW OF SYSTEMS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15436)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7814)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7815)

Review Of Systems Section Table

consol::ReviewOfSystemsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 1.3.6.1.4.1.19376.1.5.3.1.3.18]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15436	LOINC 2.16.840.1.113883.6.1 10187-3
title	1..1	SHALL	ST	CONF:7814	
reviewOfSystemsSection	0..1	MAY	ReviewOfSystemsSection	CONF:9580	
text	1..1	SHALL	StrucDocText	CONF:7815	

Review Of Systems Section Sample

The following XML snippet is a sample for Review Of Systems Section

```
<section xmlns="urn:hl7-org:v3">
  <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>GVZFuZijV UECsTmoX zQemw zljcLZNdR rETpAL DqXYdLcq bfnemnm pjwPEbxXz
WamJwkRmh adWRJJ DuhbOAIJ uMKTh pmUZiQ YrCES EdIlwQZg iRILAcyn KgviJG
gwJWibnG qxSgFvUHT gtxobU uiFQFZs kXvNVr YxpHNvqGr bRklFRE LeSeK GbFsaV
jYNrCE kjmCDQb AoAxtaBlD biimNhfg NBpES RdIdwvec aQDYnPL iiHeOpIWp
</text>
</section>
```

Figure 59: Review Of Systems Section example

Social History Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.17]

This section contains data defining the patient's occupational, personal (e.g. lifestyle), social, and environmental history and health risk factors, as well as administrative data such as marital status, race, ethnicity and religious affiliation. Social history can have significant influence on a patient's physical, psychological and emotional health and wellbeing so should be considered in the development of a complete record.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7936, CONF:10449) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.17"
 2. **SHALL** contain exactly one [1..1] **code** (CONF:14819)/**@code**="29762-2" *Social history* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14820)
 3. **SHALL** contain exactly one [1..1] **title** (CONF:7938, R2.1=CONF:1198-7938)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:7939, R2.1=CONF:1198-7939)
 5. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:7953, CONF:7954)
 - a. Conforms to [Social History Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.38)
 6. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:9132, R2.1=CONF:1198-9132, CONF:14822, R2.1=CONF:1198-14822)
 - a. Conforms to [Pregnancy Observation](#) (templateId: 2.16.840.1.113883.10.20.15.3.8)
 7. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:14823, CONF:14824)
 - a. Conforms to [Smoking Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.78)
 8. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:16816, CONF:16817)
 - a. Conforms to [Tobacco Use](#) (templateId: 2.16.840.1.113883.10.20.22.4.85)
-
1. **SHALL** contain exactly one [1..1] **code** (CONF:14819)/**@code**="29762-2" *Social history* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14820)
 2. **SHALL** contain exactly one [1..1] **title** (CONF:7938, R2.1=CONF:1198-7938)
 3. **SHALL** contain exactly one [1..1] **text** (CONF:7939, R2.1=CONF:1198-7939)
 4. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:7953, CONF:7954)
 - a. Conforms to [Social History Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.38)
 5. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:9132, R2.1=CONF:1198-9132, CONF:14822, R2.1=CONF:1198-14822)
 - a. Conforms to [Pregnancy Observation](#) (templateId: 2.16.840.1.113883.10.20.15.3.8)
 6. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:14823, CONF:14824)
 - a. Conforms to [Smoking Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.78)
 7. If section/**@nullFlavor** is not present, **MAY** contain [0..*] **entry** such that it (CONF:16816, CONF:16817)
 - a. Conforms to [Tobacco Use](#) (templateId: 2.16.840.1.113883.10.20.22.4.85)

Social History Section Table

consol::SocialHistorySection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.17]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:14820	LOINC 2.16.840.1.113883.6.1 29762-2
title	1..1	SHALL	ST	CONF:7938, R2.1=CONF:1198-7938	

consol::SocialHistorySection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.17]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.15.3.8]	0..*	MAY	PregnancyObservation	CONF:9132, R2.1=CONF:1198-9132, CONF:14822, R2.1=CONF:1198-14822	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.78]	0..*	SHOULD	SmokingStatusObservation	CONF:14823, CONF:14824	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.38]	0..*	MAY	SocialHistoryObservation	CONF:7953, CONF:7954	
socialHistorySection	0..1	MAY	SocialHistorySection	CONF:9582	
text	1..1	SHALL	StrucDocText	CONF:7939, R2.1=CONF:1198-7939	
cda:entry/ cda:observation[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.85]	0..*	MAY	TobaccoUse	CONF:16816, CONF:16817	

Social History Section Sample

The following XML snippet is a sample for Social History Section

```

<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
  <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Social history"/>
  <title>Social history</title>
  <text>BnQJq SPLMXEQ IvFnKqb bXERvwq AupUjuzk ocVGbfAVr fXrwj FOIEln
CCeurxT QmBMf JCvLSmrh TULHxwa hBJDGilHi CSmLcbHEp oDLuCm
KnBam PMkjkz OsMafXMok RVWPdXi IxsHAR XidQBWSS UKFie QOSSaivjf jYJdRe
ldvyS SMsoKoTW rjhwCTLRc uMtTJe WsMzQxQ dzmHWivNc OaltA gColsWd GEwLL
Vafjh YtpCvNK MMgLkidR LOErC CiZZoVw LFogC rIGHxsvgf CnfOjXQ DpkIE DMgOvD
BjhbmesI AfngGXUB nyyPw nQBSF kLaSMw tTrmWxCCe jHdsG LFoxFYlft cZhzeJA
mnFVepOn ESvWZAV adqyhF RTruk LMBfkJ HinQCr ryOXwMD
</text>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.38"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.15.3.8"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <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"
codeSystemName="LOINC"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
</observation>
</entry>
<entry>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.78"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entry>
<entry>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entry>
</section>

```

Figure 60: Social History Section example

Subjective Section

[Section: templateId 2.16.840.1.113883.10.20.21.2.2]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7873, CONF:10470) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.21.2.2"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15437)/**@code**="61150-9" *Subjective* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15438)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7876)
4. **SHALL** contain exactly one [1..1] **title** (CONF:7875)

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.

1. **SHALL** contain exactly one [1..1] **code** (CONF:15437)/**@code**="61150-9" *Subjective* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15438)
2. **SHALL** contain exactly one [1..1] **title** (CONF:7875)

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.

3. **SHALL** contain exactly one [1..1] **text** (CONF:7876)

Subjective Section Table

consol::SubjectiveSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.21.2.2]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15438	LOINC 2.16.840.1.113883.6.1 61150-9
title	1..1	SHALL	ST	CONF:7875	
subjectiveSection	0..1	MAY	SubjectiveSection	CONF:8790	
text	1..1	SHALL	StrucDocText	CONF:7876	

Subjective Section Sample

The following XML snippet is a sample for Subjective Section

```
<section xmlns="urn:hl7-org:v3">
  <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</title>
  <text>GciloI XveOMmv tStEZAH nbvRj DxGjx SFeDrtUc rTyTIRUCd VhBOH XKWhIq
    lVXLzcLsH mZjWvNBaM nUUiVKNvW vtBCvBpl CNVJPi iMxsoUzy jXaoFyAaz lvPzrQyUG
    ohRxjD CCKpvoM uzqcUAql tHdFzce PsTuZDRsY seJthP XfVfRZDMX BgYdXaXF OrtNeXu
    BrbmBcU EccjE wVPbnFck VoOjLRb WPUFGNz PrJRCuS LoKDLteiL KMDoWs rTOkpyoou
    lNJWGpxbP MFTVcwr jrlVvk EhCFVhq KEnDJ
    viXxPn kpzoZQ AHKXaWgJ dCRbVisGN CeOqa GWxXz mXXRvPD KlkPeFkZ JGxZAmCF
    ObYOhmaz SboKoBj AkpvFV xrFeBFkI LzqVmNqCj dvdOB lHsoeviWC bjVFMAXNt
    NJuXz qacXbUl fGpug lZEAnyiD JieyK DFeUp jyZiIfO sMFKw VRwAO kctME vWjdlcl
    JwkcjhQBh jOMDpWXFe ZTVvkNob XNWcTzM XWvLbPxL NBfAUeD
    ReQPk zoBJBir WFTahn YbEbzMpt gGSoykT tTdJd vdDROX lmnYIBtQ kCHvSNdiI LZuMpB
    rbVQj VSqdPcnv ysJeJh dStRr
    VPUGBe BlVhJG SaIip RBSvt XxwdZ WoLcFQG ZjDqvBgvt pVfspVtze ggpBIE RCAZU
    PzldpU aPuJxg dTicV AuOalc rBALlqnZ HsSepJM KEYrg JESQm
  </text>
</section>
```

Figure 61: Subjective Section example

Surgical Drains Section

[Section: templateId 2.16.840.1.113883.10.20.7.13]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8038, CONF:10473) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.7.13"
2. **SHALL** contain exactly one [1..1] **code** (CONF:15441)/**@code**="11537-8" *Surgical Drains* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15442)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8041)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8040)
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:8056)

1. **SHALL** contain exactly one [1..1] **code** (CONF:15441)/@code="11537-8" *Surgical Drains* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15442)
2. **SHALL** contain exactly one [1..1] **title** (CONF:8040)
3. **SHALL** contain exactly one [1..1] **text** (CONF:8041)
4. 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:8056)

Surgical Drains Section Table

consol::SurgicalDrainsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.7.13]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15442	LOINC 2.16.840.1.113883.6.1 11537-8
title	1..1	SHALL	ST	CONF:8040	
surgicalDrainsSection	0..1	MAY	SurgicalDrainsSection	CONF:9912	
text	1..1	SHALL	StrucDocText	CONF:8041	

Surgical Drains Section Sample

The following XML snippet is a sample for Surgical Drains Section

```
<section xmlns="urn:hl7-org:v3">
  <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>SHrsLQ gsiuufe Ypthq MUSpFVo dmihBDdhhb tuMLcpUAb tYyVp URzqaNdN
ajqMN nQjjg vJeWBZud nFPDN VpmMSylXs
GLVNS ylemhor FxzkKis CBkDfWw syxOWbkPf duHFSd ZSjjiNoRX tySXw lHBfW dFVLvhJ
LIykPFuvH JPTXURQa bNDjsI mzwynYhcm tcdVLY jyAgnK LaPXhyiqF BYgIujtf
CFzmHxx
ODHqOwrI mVqkz uxfdnTO XXfiKrQH VIXdG ZpOunYh svDbGucgA SmprEs HN daiPcZO
RFQopRHGD
ahomfS yJyucda MSTJpWif dnegn LdDGOcG YkSFqx SuPmV wkpFSUo SxGeTBag TRWJX
voLHTJXF a ZHphxhFI Uwhik mXNEDEnV NznhJyW abDHrCP wZsMIVg YJoznhzaD
FQEZHfpkr lYWBH qaWPKqquG MQJfi VHxtu cTNxTnOP HFVOQztA BmyhDN qCpvvIgr
tHBhUL OGzciQ BRjvQygBN PnhRNxz ANxdJmlqI IhSEc Xgqlz ApiKC NZRCYaCxy
AizMlN alVESRM SkXXyS EGUyc eETKKZ mbPUSua LPNeiP yWDKfTS cRWoPi DBFXV
snYLEX yqcwn jlvAy JXecT OYZrnHj AKeKfQOJ UOpDgw cSigwOUN
</text>
</section>
```

Figure 62: Surgical Drains Section example

Vital Signs

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, and pulse oximetry. 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.

Optional Entries

[Section: templateId 2.16.840.1.113883.10.20.22.2.4]

The following constraints apply to a Vital Signs in which entries are not required.

1. SHALL contain exactly one [1..1] **templateId** (CONF:7268, CONF:10451) such that it
 - a. SHALL contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.4"
2. SHALL contain exactly one [1..1] **code** (CONF:15242)/**@code**="8716-3" *Vital Signs* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15243)
3. SHALL contain exactly one [1..1] **title** (CONF:9966, R2.1=CONF:1198-9966)
4. SHALL contain exactly one [1..1] **text** (CONF:7270, R2.1=CONF:1198-7270)
5. If section/**@nullFlavor** is not present, **SHOULD** contain [0..*] **entry** such that it (CONF:7271, CONF:7272)
 - a. Conforms to [Vital Signs Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.26)

Required Entries

The following constraints apply to a Vital Signs in which entries are required.

1. SHALL contain exactly one [1..1] **templateId** (CONF:7273, CONF:10452) such that it
 - a. SHALL contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.4.1"
2. SHALL conform to [Vital Signs Section Entries Optional](#) template (templateId: 2.16.840.1.113883.10.20.22.2.4)
3. SHALL contain exactly one [1..1] **code** (CONF:15962)/**@code**="8716-3" *Vital Signs* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15963)
4. SHALL contain exactly one [1..1] **text** (CONF:7275)
5. SHALL contain exactly one [1..1] **title** (CONF:9967)
6. If section/@nullFlavor is not present, SHALL contain [1..*] **entry** such that it (CONF:7276, CONF:7277)
 - a. Conforms to [Vital Signs Organizer](#) (templateId: 2.16.840.1.113883.10.20.22.4.26)

Vital Signs Table

consol::VitalSignsSection					
/cda:ClinicalDocument/cda:component/cda:structuredBody/cda:component/cda:section[cda:templateId/@root = 2.16.840.1.113883.10.20.22.2.4]/					
XPath	Card.	Verb	Data Type	CONF#	Fixed Value
code	1..1	SHALL	CE	CONF:15963	LOINC 2.16.840.1.113883.6.1LOINC 2.16.840.1.113883.6.1 8716-3
title	1..1	SHALL	ST	CONF:9967	
text	1..1	SHALL	StrucDocText	CONF:7275	
cda:entry/ cda:organizer[cda:templateId/ @root = 2.16.840.1.113883.10.20.22.4.26]	1..*	SHALL	VitalSignsOrganizer	CONF:7276CONF:7277	

Vital Signs Sample

The following XML snippet is a sample for Vital Signs Section Entries Optional

```
<section xmlns="urn:hl7-org:v3">
  <templateId root="2.16.840.1.113883.10.20.22.2.4.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.4"/>
  <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Vital Signs"/>
```

```

<title>Vital Signs</title>
<text>BMBbRZVSa mkdRvCRLw sFDdAW AeSYK DENjcVtO QnMXgwcK jgoUqfHVQ
qXlHgXYuN ETgQcSyFI iDZbo JpOkIwcx URRzjTs foTCW DJNZpbgL BskBWd PmsPEG
GeQaWHOTg gEulT LfEQERH HFIRQGW wYGyMWY xmMapUegw gbDTLtFj zFBqEkG mKRAV
jnUiGpOxj HHmTWfYHs
</text>
<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
    <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
    <statusCode code="completed"/>
    <component>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
        <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <author/>
      </observation>
    </component>
  </organizer>
</entry>
</section>

```

Figure 63: Vital Signs Section Entries Optional example

Chapter

5

ENTRY-LEVEL TEMPLATES

Topics:

- Admission Medication
- Advance Directive Observation
- Age Observation
- Allergy Observation
- Allergy Problem Act
- Allergy Status Observation
- Authorization Activity
- Boundary Observation
- Code Observations
- Comment Activity
- Coverage Activity
- Discharge Medication
- Encounter Activities
- Estimated Date Of Delivery
- Family History Death Observation
- Family History Observation
- Family History Organizer
- Health Status Observation
- Hospital Admission Diagnosis
- Hospital Discharge Diagnosis
- Immunization Activity
- Immunization Refusal Reason
- Indication
- Instructions
- Medication Activity
- Medication Dispense
- Medication Supply Order
- Non Medicinal Supply Activity
- Plan Of Care Activity Act
- Plan Of Care Activity Encounter
- Plan Of Care Activity Observation
- Plan Of Care Activity Procedure
- Plan Of Care Activity Substance Administration

- Plan Of Care Activity Supply
- Policy Activity
- Postprocedure Diagnosis
- Pregnancy Observation
- Preoperative Diagnosis
- Problem Concern
- Problem Observation
- Problem Status
- Procedure Activity Act
- Procedure Activity Observation
- Procedure Activity Procedure
- Procedure Context
- Procedure Encounter
- Purposeof Reference
Observation
- Quantity Measurement
Observation
- Reaction Observation
- Referenced Frames
Observation
- Result
- Result Organizer
- SOP Instance Observation
- Series Act
- Severity Observation
- Social History Observation
- Study Act
- Text Observation
- Vital Sign
- Vital Signs Organizer

Admission Medication

[Act: templateId 2.16.840.1.113883.10.20.22.4.36]

The Admission Medications entry codes medications that the patient took prior to admission.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16758, CONF:16759) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.36"
 2. **SHALL** contain exactly one [1..1] **@classCode** (kp)="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7698, R2.0=CONF:1098-7698)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7699, R2.0=CONF:1098-7699)
 4. **SHALL** contain exactly one [1..1] **code** (CONF:15518)/**@code**="42346-7" *Medications on Admission* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15519)
 5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7701, CONF:7702, CONF:15520)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
1. **SHALL** contain exactly one [1..1] **@classCode** (kp)="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7698, R2.0=CONF:1098-7698)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7699, R2.0=CONF:1098-7699)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:15518)/**@code**="42346-7" *Medications on Admission* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15519)
 4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7701, CONF:7702, CONF:15520)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

Admission Medication example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.36"/>
  <code code="42346-7" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Medications on Admission"/>
  <text>Text Value</text>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <code code="2005124940"/>
      <text>Text Value</text>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
        </manufacturedProduct>
      </consumable>
    </performer>
  </entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
```

```

<templateId root="2.16.840.1.113883.10.20.22.4.17"/>
<templateId root="2.16.840.1.113883.10.20.22.4.17"/>
<code code="1773520117"/>
<text>Text Value</text>
<author/>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <code code="244872052"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>

```

```

        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <code code="1280957535"/>
        <text>Text Value</text>
        <performer/>
        <entryRelationship>
            <supply classCode="SPLY" moodCode="INT">
                <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
            </supply>
        </entryRelationship>
    </supply>
</entryRelationship>
<precondition typeCode="PRCN">
    <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    </criterion>
</precondition>
</substanceAdministration>
</entryRelationship>
</act>

```

Advance Directive Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.48]

Advance Directives Observations assert findings (e.g., "resuscitation status is Full Code") rather than orders, and should not be considered legal documents. A legal document can be referenced using the reference/externalReference construct.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8655, CONF:10485) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.48"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8648, R2.1=CONF:1198-8648)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8649, R2.1=CONF:1198-8649)
4. **SHALL** contain at least one [1..*] **id** (CONF:8654, R2.1=CONF:1198-8654)
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Advance Directive Type Code 2.16.840.1.113883.1.11.20.2 **DYNAMIC** (CONF:8651)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8652, R2.1=CONF:1198-8652, R2.1=CONF:1198-19082)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8656)
8. **SHOULD** contain zero or more [0..*] **participant** such that it (CONF:8662)
 - a. **SHOULD** contain zero or one [0..1] **time** (CONF:8665)
 - b. **SHALL** contain exactly one [1..1] **@typeCode**="VRF" (CONF:8663, R2.1=CONF:1198-8663)
 - c. **SHALL** contain exactly one [1..1] **participantRole**, where its type is CDA Participant Role (CONF:8825)

9. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:8667)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="CST"** (CONF:8668, R2.1=CONF:1198-8668)
 - b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8669)
 1. **SHOULD** contain zero or one [0..1] **addr** (CONF:8671)
 2. **SHALL** contain exactly one [1..1] **@classCode="AGNT"** (CONF:8670, R2.1=CONF:1198-8670)
 3. **SHOULD** contain zero or one [0..1] **telecom** (CONF:8672)
 4. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:8824)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8673)
 - b. The name of the agent who can provide a copy of the Advance Directive **SHALL** be recorded in the <name> element inside the <playingEntity> element (CONF:8674)
10. **SHOULD** contain zero or more [0..*] **reference** such that it (CONF:8692)
 - a. **SHALL** contain exactly one [1..1] **@typeCode/@code="REFR"** (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) (CONF:8694, R2.1=CONF:1198-8694)
 - b. **SHALL** contain exactly one [1..1] **externalDocument** such that it (CONF:8693, R2.1=CONF:1198-8693)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8695, R2.1=CONF:1198-8695)
 2. **MAY** contain zero or one [0..1] **text** (CONF:8696, R2.1=CONF:1198-8696)
 3. The text, if present, **MAY** contain zero or one [0..1] **@mediaType** (CONF:8703)
 4. The text, if present, **MAY** contain zero or one [0..1] reference. a. The URL of a referenced advance directive document **MAY** be present, and **SHALL** be represented in Observation/reference/ExternalDocument/text/reference. b. If a URL is referenced, then it **SHOULD** have a corresponding linkHTML element in narrative block. (CONF:8697, R2.1=CONF:1198-8697, CONF:8698, R2.1=CONF:1198-8698, CONF:8699, R2.1=CONF:1198-8699)
11. This effectiveTime **SHALL** contain exactly one [1..1] low i. If the starting time is unknown, the <low> element **SHALL** have the nullFlavor attribute set to UNK (CONF:8657, CONF:8658)
12. This effectiveTime **SHALL** contain exactly one [1..1] high. i. If the ending time is unknown, the <high> element **SHALL** have the nullFlavor attribute set to UNK. ii. If the Advance Directive does not have a specified ending time, the <high> element **SHALL** have the nullFlavor attribute set to NA. (CONF:8659, CONF:8660)
1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8648, R2.1=CONF:1198-8648)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8649, R2.1=CONF:1198-8649)
3. **SHALL** contain at least one [1..*] **id** (CONF:8654, R2.1=CONF:1198-8654)
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Advance Directive Type Code 2.16.840.1.113883.1.11.20.2 DYNAMIC (CONF:8651)
5. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8652, R2.1=CONF:1198-8652, R2.1=CONF:1198-19082)
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8656)
7. **SHOULD** contain zero or more [0..*] **participant** such that it (CONF:8662)
 - a. **SHOULD** contain zero or one [0..1] **time** (CONF:8665)
 - b. **SHALL** contain exactly one [1..1] **@typeCode="VRF"** (CONF:8663, R2.1=CONF:1198-8663)
 - c. **SHALL** contain exactly one [1..1] **participantRole**, where its type is CDA Participant Role (CONF:8825)

8. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:8667)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="CST"** (CONF:8668, R2.1=CONF:1198-8668)
 - b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8669)
 1. **SHOULD** contain zero or one [0..1] **addr** (CONF:8671)
 2. **SHALL** contain exactly one [1..1] **@classCode="AGNT"** (CONF:8670, R2.1=CONF:1198-8670)
 3. **SHOULD** contain zero or one [0..1] **telecom** (CONF:8672)
 4. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:8824)
 - a. **SHALL** contain at least one [1..*] **name** (CONF:8673)
 - b. The name of the agent who can provide a copy of the Advance Directive **SHALL** be recorded in the **<name>** element inside the **<playingEntity>** element (CONF:8674)
9. **SHOULD** contain zero or more [0..*] **reference** such that it (CONF:8692)
 - a. **SHALL** contain exactly one [1..1] **@typeCode/@code="REFR"** (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) (CONF:8694, R2.1=CONF:1198-8694)
 - b. **SHALL** contain exactly one [1..1] **externalDocument** such that it (CONF:8693, R2.1=CONF:1198-8693)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8695, R2.1=CONF:1198-8695)
 2. **MAY** contain zero or one [0..1] **text** (CONF:8696, R2.1=CONF:1198-8696)
 3. The text, if present, **MAY** contain zero or one [0..1] **@mediaType** (CONF:8703)
 4. The text, if present, **MAY** contain zero or one [0..1] reference. a. The URL of a referenced advance directive document **MAY** be present, and **SHALL** be represented in Observation/reference/ExternalDocument/text/reference. b. If a URL is referenced, then it **SHOULD** have a corresponding linkHTML element in narrative block. (CONF:8697, R2.1=CONF:1198-8697, CONF:8698, R2.1=CONF:1198-8698, CONF:8699, R2.1=CONF:1198-8699)
10. This effectiveTime **SHALL** contain exactly one [1..1] low i. If the starting time is unknown, the **<low>** element **SHALL** have the nullFlavor attribute set to UNK (CONF:8657, CONF:8658)
11. This effectiveTime **SHALL** contain exactly one [1..1] high. i. If the ending time is unknown, the **<high>** element **SHALL** have the nullFlavor attribute set to UNK. ii. If the Advance Directive does not have a specified ending time, the **<high>** element **SHALL** have the nullFlavor attribute set to NA. (CONF:8659, CONF:8660)

Advance Directive Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.48"/>
  <id root="MDHT" extension="19121547"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <participant typeCode="VRF">
    <time>
      <low value="2019"/>
      <high value="2019"/>
    </time>
    <participantRole/>
  </participant>
  <participant typeCode="CST">
    <participantRole classCode="AGNT">
      <addr/>
      <telecom/>
      <playingEntity/>
    </participantRole>
  </participant>
</observation>
```

```

<reference typeCode="REFR">
  <externalDocument>
    <id root="MDHT" extension="515441686"/>
    <text>Text Value</text>
  </externalDocument>
</reference>
</observation>

```

Age Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.31]

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").

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7899) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.31"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7613)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7614)
 4. **SHALL** contain exactly one [1..1] **code** (CONF:7615)/**@code**="445518008" *Age At Onset* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:16776)
 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:15965)/**@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:15966)
 6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:7617)
 7. This value **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet AgePQ_UCUM 2.16.840.1.113883.11.20.9.21 DYNAMIC (CONF:7618)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7613)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7614)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:7615)/**@code**="445518008" *Age At Onset* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:16776)
 4. **SHALL** contain exactly one [1..1] **statusCode** (CONF:15965)/**@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:15966)
 5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:7617)
 6. This value **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet AgePQ_UCUM 2.16.840.1.113883.11.20.9.21 DYNAMIC (CONF:7618)

Age Observation example

```

<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
  <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <value xsi:type="PQ"/>
</observation>

```

Allergy Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.7]

This clinical statement represents that an allergy or adverse reaction exists or does not exist. The agent that is the cause of the allergy or adverse reaction is represented as a manufactured material participant playing entity in the allergy - intolerance observation. While the agent is often implicit in the alert observation (e.g. "allergy to penicillin"), it should also be asserted explicitly as an entity. The manufactured material participant is used to represent natural and non-natural occurring substances. NOTE: 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7381, CONF:10488) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.7"
2. **SHALL** conform to [Substance Or Device Allergy Observation](#) template (templateId: 2.16.840.1.113883.10.20.24.3.90)
3. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7379, R2.0=CONF:1098-7379)
4. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7380, R2.0=CONF:1098-7380)
5. **SHALL** contain at least one [1..*] **id** (CONF:7382, R2.0=CONF:1098-7382)
6. **SHALL** contain exactly one [1..1] **code** (CONF:15947)/**@code**="ASSERTION" (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:15948)
7. **SHALL** contain exactly one [1..1] **statusCode**/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7386)
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7387)
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Allergy/Adverse Event Type 2.16.840.1.113883.3.88.12.3221.6.2 **DYNAMIC** (CONF:7390, CONF:9139)
10. **MAY** contain [0..1] **entryRelationship** such that it (CONF:7440, CONF:7906, CONF:15954)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Allergy Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.28)
11. **SHOULD** contain [0..*] **entryRelationship** such that it (CONF:7447, CONF:7907, CONF:15955)
 - a. Contains **@typeCode**="MFST" *MFST*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)
12. **MAY** contain [0..1] **entryRelationship** such that it (CONF:9961, CONF:9962, CONF:15956)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Severity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.8)

13. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:7402)

a. **SHALL** contain exactly one [1..1] **@typeCode/@code="CSM"** *Consumable* (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:7403, R2.0=CONF:1098-7403)

b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:7404)

1. **SHALL** contain exactly one [1..1] **@classCode/@code="MANU"** *Manufactured Product* (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) (CONF:7405, R2.0=CONF:1098-7405)

2. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:7406)

a. **SHALL** contain exactly one [1..1] **@classCode="MMAT"** (CONF:7407, R2.0=CONF:7407)

b. **SHALL** contain exactly one [1..1] **code** (CONF:7419)

c. 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:15953)

d. In an allergy to a specific medication the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.16 Medication Brand Name DYNAMIC or the ValueSet 2.16.840.1.113883.3.88.12.80.17 Medication Clinical Drug DYNAMIC (CONF:7421)

e. In an allergy to a class of medications the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.18 Medication Drug Class DYNAMIC (CONF:10083)

f. In an allergy to a food or other substance the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.20 Ingredient Name DYNAMIC (CONF:10084)

g. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15952)

h. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:7425)

i. code **SHALL** be selected from ValueSet Substance-Reactant for Intolerance 2.16.840.1.113762.1.4.1010.1 DYNAMIC. Note: 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); 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). (CONF:7419)

14. If it is unknown when the allergy began, this effectiveTime **SHALL** contain low/
@nullFlavor="UNK" (CONF:9103)

15. If the allergy is no longer a concern, this effectiveTime **MAY** contain zero or one [0..1] high (CONF:10082)

16. value **SHOULD** contain zero or one [0..1] originalText (CONF:7422)

17. originalText, if present, **MAY** contain zero or one [0..1] reference (CONF:15949)

18. reference, if present, **SHOULD** contain zero or one [0..1] reference/@value (CONF:15950)

19. reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (CONF:15951)

20. entryRelationship with target entry AllergyStatusObservation **SHALL** contain exactly one [1..1]
@inversionInd="true" True (CONF:7446)

21. entryRelationship with target entry Reaction Observation **SHALL** contain exactly one [1..1]
@inversionInd="true" True (CONF:7449)

22. entryRelationship with target entry Severity Observation **SHALL** contain exactly one [1..1] @inversionInd="true"
True (CONF:9964)

1. **SHALL** conform to [Substance Or Device Allergy Observation](#) template (templateId:
2.16.840.1.113883.10.20.24.3.90)

2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7379, R2.0=CONF:1098-7379)

3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7380, R2.0=CONF:1098-7380)

4. **SHALL** contain at least one [1..*] **id** (CONF:7382, R2.0=CONF:1098-7382)

5. **SHALL** contain exactly one [1..1] **code** (CONF:15947)/**@code="ASSERTION"** (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:15948)

6. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7386)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7387)
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, which **SHALL** be selected from ValueSet Allergy/Adverse Event Type 2.16.840.1.113883.3.88.12.3221.6.2 **DYNAMIC** (CONF:7390, CONF:9139)
9. **MAY** contain [0..1] **entryRelationship** such that it (CONF:16333, CONF:16335, CONF:16336)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Allergy Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.28)
10. **SHOULD** contain [0..*] **entryRelationship** such that it (CONF:16337, CONF:16339, CONF:16340)
 - a. Contains **@typeCode="MFST"** *MFST*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)
11. **MAY** contain [0..1] **entryRelationship** such that it (CONF:16341, CONF:16342, CONF:16344)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Severity Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.8)
12. **SHOULD** contain zero or more [0..*] **participant** such that it (CONF:16318)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="CSM"** (CONF:16319, R2.0=CONF:1098-16319)
 - b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:16320)
 1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CONF:16321, R2.0=CONF:1098-16321)
 2. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:16322)
 - a. **SHALL** contain exactly one [1..1] **@classCode="MMAT"** (CONF:16323, R2.0=CONF:1098-16323)
 - b. **SHALL** contain exactly one [1..1] **code** (CONF:16324)
 - c. code/originalText/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:16329)
 - d. In an allergy to a specific medication the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.16 Medication Brand Name DYNAMIC or the ValueSet 2.16.840.1.113883.3.88.12.80.17 Medication Clinical Drug DYNAMIC (CONF:16325)
 - e. In an allergy to a class of medications the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.18 Medication Drug Class DYNAMIC (CONF:16331)
 - f. In an allergy to a food or other substance the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.20 Ingredient Name DYNAMIC (CONF:16332)
 - g. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:16328)
 - h. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:16327)
 - i. code **MAY** be selected from ValueSet Substance-Reactant for Intolerance 2.16.840.1.113762.1.4.1010.1 DYNAMIC. Note: 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); 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). (CONF:16324, R2.0=CONF:1098-16324)
13. **MAY** contain [0..1] **entryRelationship** such that it (CONF:7440, CONF:7906, CONF:15954)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Allergy Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.28)
14. **SHOULD** contain [0..*] **entryRelationship** such that it (CONF:7447, CONF:7907, CONF:15955)
 - a. Contains **@typeCode="MFST"** *MFST*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)

15. **MAY** contain [0..1] **entryRelationship** such that it (CONF:9961, CONF:9962, CONF:15956)
- a. Contains **@typeCode="SUBJ" SUBJ**
 - b. Conforms to **Severity Observation** (templateId: 2.16.840.1.113883.10.20.22.4.8)
16. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:7402)
- a. **SHALL** contain exactly one [1..1] **@typeCode/@code="CSM" Consumable** (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:7403, R2.0=CONF:1098-7403)
 - b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:7404)
 - 1. **SHALL** contain exactly one [1..1] **@classCode/@code="MANU" Manufactured Product** (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) (CONF:7405, R2.0=CONF:1098-7405)
 - 2. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:7406)
 - a. **SHALL** contain exactly one [1..1] **@classCode="MMAT"** (CONF:7407, R2.0=CONF:7407)
 - b. **SHALL** contain exactly one [1..1] **code** (CONF:7419)
 - c. 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:15953))
 - d. In an allergy to a specific medication the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.16 Medication Brand Name DYNAMIC or the ValueSet 2.16.840.1.113883.3.88.12.80.17 Medication Clinical Drug DYNAMIC (CONF:7421)
 - e. In an allergy to a class of medications the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.18 Medication Drug Class DYNAMIC (CONF:10083)
 - f. In an allergy to a food or other substance the code **SHALL** be selected from the ValueSet 2.16.840.1.113883.3.88.12.80.20 Ingredient Name DYNAMIC (CONF:10084)
 - g. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15952)
 - h. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:7425)
 - i. code **SHALL** be selected from ValueSet Substance-Reactant for Intolerance 2.16.840.1.113762.1.4.1010.1 DYNAMIC. Note: 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); 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). (CONF:7419)
17. entryRelationship with target entry Allergy Status Observation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:16334)
18. entryRelationship with target entry Reaction Observation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:16338)
19. entryRelationship with target entry Severity Observation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:16343)
20. If it is unknown when the allergy began, this effectiveTime **SHALL** contain low/ **@nullFlavor="UNK"** (CONF:9103)
21. If the allergy is no longer a concern, this effectiveTime **MAY** contain zero or one [0..1] high (CONF:10082)
22. value **SHOULD** contain zero or one [0..1] originalText (CONF:7422)
23. originalText, if present, **MAY** contain zero or one [0..1] reference (CONF:15949)
24. reference, if present, **SHOULD** contain zero or one [0..1] reference/@value (CONF:15950)
25. reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (CONF:15951)
26. entryRelationship with target entry AllergyStatusObservation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:7446)
27. entryRelationship with target entry Reaction Observation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:7449)
28. entryRelationship with target entry Severity Observation **SHALL** contain exactly one [1..1] **@inversionInd="true" True** (CONF:9964)

Allergy Observation example

```

<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.7"/>
  <templateId root="2.16.840.1.113883.10.20.24.3.90"/>
  <id root="MDHT" extension="2088039368"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="1246519899"/>
  <participant typeCode="CSM">
    <participantRole classCode="MANU">
      <playingEntity classCode="MMAT"/>
    </participantRole>
  </participant>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <id root="MDHT" extension="1405334062"/>
      <code code="1606875423"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="995076506"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <id root="MDHT" extension="1736165179"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="342506756"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <id root="MDHT" extension="1511524566"/>
      <code code="1989312275"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>

```

```

    <specimen/>
    <performer/>
    <entryRelationship typeCode="COMP" inversionInd="true"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <substanceAdministration classCode="SBADM">
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
      </substanceAdministration>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
  </procedure>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <id root="MDHT" extension="2062288382"/>
    <code code="1223712751"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime value="20190227"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable/>
    <performer/>
  </substanceAdministration>
</entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
  </supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">

```

```

        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
    </act>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
    </supply>
</entryRelationship>
    <precondition typeCode="PRCN"/>
</substanceAdministration>
</entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
        <id root="MDHT" extension="2035702572"/>
        <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
            <low value="2019"/>
            <high value="2019"/>
        </effectiveTime>
        <value xsi:type="CD" code="1151305"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.28"/>
        <id root="MDHT" extension="443697094"/>
        <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
            <low value="2019"/>
            <high value="2019"/>
        </effectiveTime>
        <value xsi:type="CE" code="1149365562"/>
    </observation>
</entryRelationship>
</observation>

```

Allergy Problem Act

[Act: templateId 2.16.840.1.113883.10.20.22.4.30]

This clinical statement act represents a concern relating to a patient's allergies or adverse events. A concern is a term used when referring to patient's problems that are related to one another. Observations of problems or other clinical

statements captured at a point in time are wrapped in a Allergy Problem Act, or "Concern" act, which represents the ongoing process tracked over time. This outer Allergy Problem Act (representing the "Concern") can contain nested problem observations or other nested clinical statements relevant to the allergy concern.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7471, CONF:10489) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.30"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7469, R2.1=CONF:1198-7469)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7470, R2.1=CONF:1198-7470)
4. **SHALL** contain at least one [1..*] **id** (CONF:7472, R2.1=CONF:1198-7472)
5. **SHALL** contain exactly one [1..1] **code** (CONF:NEW)
6. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet ProblemActStatusCode 2.16.840.1.113883.11.20.9.19 **STATIC** 2011-09-09 (CONF:7485, R2.1=CONF:1198-7485, R2.1=CONF:1198-19086)

The statusCode associated with any concern must be one of the following values: **active**: A concern that is still being tracked. **suspended**: A concern that is active, but which may be set aside. For example, this value might be used to suspend concern about a patient problem after some period of remission, but before assumption that the concern has been resolved. **aborted**: A concern that is no longer actively being tracked, but for reasons other than because the problem was resolved. This value might be used to mark a concern as being aborted after a patient leaves care against medical advice. **completed**: The problem, allergy or medical state has been resolved and the concern no longer needs to be tracked except for historical purposes.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7498, R2.1=CONF:1198-7498)
- The effectiveTime element records the starting and ending times during which the concern was active.
8. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7509, CONF:7915, CONF:14925)

- a. Contains **@typeCode**="SUBJ" *SUBJ*

- b. Conforms to [Allergy Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.7)

9. If statusCode/@code="active" Active, then effectiveTime **SHALL** contain [1..1] low (CONF:7504, R2.1=CONF:1198-7504)
10. If statusCode/@code="completed" Completed, then effectiveTime **SHALL** contain [1..1] high (CONF:10085, R2.1=CONF:1198-10085)

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7469, R2.1=CONF:1198-7469)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7470, R2.1=CONF:1198-7470)
3. **SHALL** contain at least one [1..*] **id** (CONF:7472, R2.1=CONF:1198-7472)
4. **SHALL** contain exactly one [1..1] **code** (CONF:NEW)
5. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet ProblemActStatusCode 2.16.840.1.113883.11.20.9.19 **STATIC** 2011-09-09 (CONF:7485, R2.1=CONF:1198-7485, R2.1=CONF:1198-19086)

The statusCode associated with any concern must be one of the following values: **active**: A concern that is still being tracked. **suspended**: A concern that is active, but which may be set aside. For example, this value might be used to suspend concern about a patient problem after some period of remission, but before assumption that the concern has been resolved. **aborted**: A concern that is no longer actively being tracked, but for reasons other than because the problem was resolved. This value might be used to mark a concern as being aborted after a patient leaves care against medical advice. **completed**: The problem, allergy or medical state has been resolved and the concern no longer needs to be tracked except for historical purposes.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7498, R2.1=CONF:1198-7498)

The effectiveTime element records the starting and ending times during which the concern was active.

7. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7509, CONF:7915, CONF:14925)
 - a. Contains **@typeCode="SUBJ" SUBJ**
 - b. Conforms to **Allergy Observation** (templateId: 2.16.840.1.113883.10.20.22.4.7)
8. If **statusCode/@code="active"** Active, then **effectiveTime SHALL** contain [1..1] low (CONF:7504, R2.1=CONF:1198-7504)
9. If **statusCode/@code="completed"** Completed, then **effectiveTime SHALL** contain [1..1] high (CONF:10085, R2.1=CONF:1198-10085)

Allergy Problem Act example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.30"/>
  <id root="MDHT" extension="950810303"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.7"/>
      <templateId root="2.16.840.1.113883.10.20.24.3.90"/>
      <id root="MDHT" extension="1558313546"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <participant typeCode="CSM">
        <participantRole classCode="MANU"/>
      </participant>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <id root="MDHT" extension="941622032"/>
      <code code="929140954"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
</act>
```



```

    </entryRelationship>
    <entryRelationship>
      <substanceAdministration classCode="SBADM">
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
      </substanceAdministration>
    </entryRelationship>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
    <id root="MDHT" extension="673106289"/>
    <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.28"/>
    <id root="MDHT" extension="1745512985"/>
    <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

Allergy Status Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.28]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7317, CONF:10490) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.28"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7318, R2.1=CONF:1098-7318, DSTU:816/1356)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7319, R2.1=CONF:1098-7319, DSTU:816/1356)

4. **SHALL** contain exactly one [1..1] **code/@code="33999-4" Status** (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7320)
5. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7321, R2.1=CONF:1098-7321, CONF:1098-19087, DSTU:816/1356)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CE"**, which **SHALL** be selected from ValueSet HITSP Problem Status 2.16.840.1.113883.3.88.12.80.68 **STATIC** (CONF:7322)
1. **SHALL** contain exactly one [1..1] **@classCode="OBS" Observation** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7318, R2.1=CONF:1098-7318, DSTU:816/1356)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN" Event** (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7319, R2.1=CONF:1098-7319, DSTU:816/1356)
3. **SHALL** contain exactly one [1..1] **code/@code="33999-4" Status** (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7320)
4. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7321, R2.1=CONF:1098-7321, CONF:1098-19087, DSTU:816/1356)
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CE"**, which **SHALL** be selected from ValueSet HITSP Problem Status 2.16.840.1.113883.3.88.12.80.68 **STATIC** (CONF:7322)

Allergy Status Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.28"/>
  <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
</observation>
```

Authorization Activity

[Act: templateId 2.16.840.1.113883.10.20.1.19]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8946, CONF:10529) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.1.19"**
2. **SHALL** contain exactly one [1..1] **@classCode="ACT" Act** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8944)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN" Event** (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8945)
4. **SHALL** contain exactly one [1..1] **id** (CONF:8947)
5. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:8948)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:8949)
 - b. The target of an authorization activity with act/entryRelationship/@typeCode="SUBJ" **SHALL** be a clinical statement with moodCode="PRMS" Promise (CONF: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:8952)

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8944)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8945)
3. **SHALL** contain exactly one [1..1] **id** (CONF:8947)
4. contain exactly one [1..1] **datatypes:code**
5. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:8948)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:8949)
 - b. The target of an authorization activity with act/entryRelationship/@typeCode="SUBJ" **SHALL** be a clinical statement with moodCode="PRMS" Promise (CONF: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:8952)

Authorization Activity example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.1.19"/>
  <id root="MDHT" extension="1052212957"/>
  <code code="1168716952"/>
  <text>Text Value</text>
  <entryRelationship typeCode="SUBJ"/>
</act>
```

Boundary Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.11]

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.

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.6.2.11"**
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9282)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9283)
4. **SHALL** contain exactly one [1..1] **code/@code="113036"** *Frames for Display* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9284)
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type="INT"** (CONF:9285)

Each numbers represents a frame for display

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9282)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9283)
3. **SHALL** contain exactly one [1..1] **code/@code="113036"** *Frames for Display* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9284)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type="INT"** (CONF:9285)

Each numbers represents a frame for display

Boundary Observation example

```

<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" 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" codeSystemName="DCM"
    displayName="Frames for Display"/>
  <text>Text Value</text>
  <value xsi:type="INT" value="1"/>
</observation>

```

Code Observations

[Observation: templateId 2.16.840.1.113883.10.20.6.2.13]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:15523, CONF:15524) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.13"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9304)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9305)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9307)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9309)
6. **SHALL** contain exactly one [1..1] **value** (CONF:9308)
7. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9311, CONF:9312, CONF:9313)
 - a. Contains **@typeCode**="SPRT" *SPRT*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9314, CONF:9315, CONF:9316)
 - a. Contains **@typeCode**="SPRT" *SPRT*
 - b. Conforms to [Quantity Measurement Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.14)
9. Code Observations **SHALL** be rendered into section/text in separate paragraphs (CONF:9310)
 1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9304)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9305)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:9307)
 4. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9309)
 5. **SHALL** contain exactly one [1..1] **value** (CONF:9308)
 6. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9311, CONF:9312, CONF:9313)
 - a. Contains **@typeCode**="SPRT" *SPRT*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
 7. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9314, CONF:9315, CONF:9316)
 - a. Contains **@typeCode**="SPRT" *SPRT*
 - b. Conforms to [Quantity Measurement Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.14)

8. Code Observations **SHALL** be rendered into section/text in separate paragraphs (CONF:9310)

Code Observations example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.13"/>
  <code code="1542014661"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="DGIMG" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
      <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
      <code code="1528966840"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="995651103"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <entryRelationship>
        <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"
codeSystemName="DCM" displayName="Frames for Display"/>
          </observation>
        </entryRelationship>
      </entryRelationship>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.14"/>
      <code code="490743992"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </entryRelationship>
  </entryRelationship>
</observation>
```

```

</effectiveTime>
<value xsi:type="PQ"/>
<entryRelationship>
  <observation classCode="DGIMG" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
    <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</observation>
</entryRelationship>
</observation>

```

Comment Activity

[Act: templateId 2.16.840.1.113883.10.20.22.4.64]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9427, CONF:10491) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.64"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9425)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9426)
4. **SHALL** contain exactly one [1..1] **code/@code**="48767-8" *Annotation comment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:9428)
5. **SHALL** contain exactly one [1..1] **text** (CONF:9430)
6. **SHOULD** contain [0..1] **author** such that it (CONF:NEW, DSTU:1038)
 - a. Conforms to [Author Participation](#) (templateId: 2.16.840.1.113883.10.20.22.4.119)
7. text **SHALL** contain exactly one [1..1] reference (CONF:15967)
8. reference **SHALL** contain exactly one [1..1] **@value** (CONF:15968)
9. 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:15969)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9425)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9426)

3. **SHALL** contain exactly one [1..1] **code/@code**="48767-8" *Annotation comment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:9428)
4. **SHALL** contain exactly one [1..1] **text** (CONF:9430)
5. **SHOULD** contain [0..1] **author** such that it (CONF:NEW, DSTU:1038)
 - a. Conforms to [Author Participation](#) (templateId: 2.16.840.1.113883.10.20.22.4.119)
6. text **SHALL** contain exactly one [1..1] reference (CONF:15967)
7. reference **SHALL** contain exactly one [1..1] @value (CONF:15968)
8. 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:15969)

Comment Activity example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.64"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.64"/>
  <code code="48767-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Annotation comment"/>
  <text>Text Value</text>
  <author>
    <templateId root="2.16.840.1.113883.10.20.22.4.119"/>
    <time/>
    <assignedAuthor>
      <id root="MDHT" extension="1093617838"/>
      <code code="1319396818"/>
      <assignedPerson/>
      <representedOrganization/>
    </assignedAuthor>
  </author>
</act>
```

Coverage Activity

[Act: templateId 2.16.840.1.113883.10.20.22.4.60]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8897, CONF:10492) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.60"
2. **SHALL** contain exactly one [1..1] @classCode="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8872, R2.1=CONF:1198-8872)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8873, R2.1=CONF:1198-8873)
4. **SHALL** contain at least one [1..*] **id** (CONF:8874, R2.1=CONF:1198-8874)
5. **SHALL** contain exactly one [1..1] **code/@code**="48768-6" *Payment Sources* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:8876)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8875, R2.1=CONF:1198-8875, R2.1=CONF:1198-19094)
7. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:8878, R2.1=CONF:1198-8878, CONF:8879, R2.1=CONF:1198-8879, CONF:15528, R2.1=CONF:1198-15528)
 - a. Contains @typeCode="COMP" *COMP*
 - b. Conforms to [Policy Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.61)
8. **MAY** contain zero or one [0..1] sequenceNumber/@value (CONF:8973) (CONF:8973)
1. **SHALL** contain exactly one [1..1] @classCode="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8872, R2.1=CONF:1198-8872)

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8873, R2.1=CONF:1198-8873)
3. **SHALL** contain at least one [1..*] **id** (CONF:8874, R2.1=CONF:1198-8874)
4. **SHALL** contain exactly one [1..1] **code/@code**="48768-6" *Payment Sources* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:8876)
5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8875, R2.1=CONF:1198-8875, R2.1=CONF:1198-19094)
6. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:8878, R2.1=CONF:1198-8878, CONF:8879, R2.1=CONF:1198-8879, CONF:15528, R2.1=CONF:1198-15528)
 - a. Contains **@typeCode**="COMP" *COMP*
 - b. Conforms to [Policy Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.61)
7. **MAY** contain zero or one [0..1] **sequenceNumber/@value** (CONF:8973) (CONF:8973)

Coverage Activity example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.60"/>
  <id root="MDHT" extension="91589666"/>
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Payment Sources"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <entryRelationship>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.61"/>
      <id root="MDHT" extension="1411970276"/>
      <code codeSystemName=""/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <performer typeCode="PRF">
        <templateId root="2.16.840.1.113883.10.20.22.4.87"/>
        <assignedEntity>
          <code codeSystem="2.16.840.1.113883.5.110"
codeSystemName="HL7RoleClass"/>
          </assignedEntity>
        </performer>
      <performer typeCode="PRF">
        <templateId root="2.16.840.1.113883.10.20.22.4.88"/>
        <time>
          <low value="2019"/>
          <high value="2019"/>
        </time>
        <assignedEntity>
          <code code="GUAR" codeSystem="2.16.840.1.113883.5.110"
codeSystemName="HL7RoleClass" displayName="Guarantor"/>
          </assignedEntity>
        </performer>
      <participant typeCode="COV">
        <templateId root="2.16.840.1.113883.10.20.22.4.89"/>
        <time>
          <low value="2019"/>
          <high value="2019"/>
        </time>
        <participantRole>
          <code codeSystem="2.16.840.1.113883.5.111"
codeSystemName="RoleCode"/>
          </participantRole>
        </participant>
      <participant typeCode="HLD">
```



```

    <templateId root="2.16.840.1.113883.10.20.22.4.90"/>
    <time>
      <low value="2019"/>
      <high value="2019"/>
    </time>
    <participantRole/>
  </participant>
  <entryRelationship typeCode="REFR"/>
</act>
</entryRelationship>
</act>

```

Discharge Medication

[Act: templateId 2.16.840.1.113883.10.20.22.4.35]

The Discharge Medications entry codes medications that the patient is intended to take (or stop) after discharge.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16760, CONF:16761) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.35"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7689, R2.0=CONF:1098-7689)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7690, R2.0=CONF:1098-7690)
4. **SHALL** contain exactly one [1..1] **code/@code**="10183-2" *Discharge Medication* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7691)
5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7692, CONF:7693, CONF:15525)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7689, R2.0=CONF:1098-7689)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7690, R2.0=CONF:1098-7690)
3. **SHALL** contain exactly one [1..1] **code/@code**="10183-2" *Discharge Medication* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7691)
4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7692, CONF:7693, CONF:15525)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

Discharge Medication example

```

<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.35"/>
  <code code="10183-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Discharge Medication"/>
  <text>Text Value</text>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <text>Text Value</text>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </substanceAdministration>
  </entryRelationship>
</act>

```

```

    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable>
      <manufacturedProduct classCode="MANU">
        <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      </manufacturedProduct>
    </consumable>
    <performer/>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
        <text>Text Value</text>
        <author/>
      <entryRelationship>
        <act classCode="ACT" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <statusCode code="completed"/>
        </act>
      </entryRelationship>
    </supply>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <code code="1847259070"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
        <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">

```

```

        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </act>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <text>Text Value</text>
        <performer/>
        <entryRelationship>
            <supply classCode="SPLY" moodCode="INT">
                <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
            </supply>
        </entryRelationship>
    </supply>
</entryRelationship>
<precondition typeCode="PRCN">
    <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    </criterion>
</precondition>
</substanceAdministration>
</entryRelationship>
</act>

```

Encounter Activities

[Encounter: templateId 2.16.840.1.113883.10.20.22.4.49]

This clinical statement describes the interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8712, CONF:26353) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.49"
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8710, R2.1=CONF:1198-8710)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8711, R2.1=CONF:1198-8711)
4. **SHALL** contain at least one [1..*] **id** (CONF:8713, R2.1=CONF:1198-8713)
5. **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet EncounterTypeCode 2.16.840.1.113883.3.88.12.80.32 **DYNAMIC** (CONF:8714)
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8715, R2.1=CONF:1198-8715)
7. **MAY** contain zero or one [0..1] **sDTCDischargeDispositionCode** (CONF:9929)

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.

8. **MAY** contain [0..*] **participant** such that it (CONF:8738, CONF:14903)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
9. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8722, CONF:8723, CONF:14899)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
10. **MAY** contain zero or more [0..*] **performer** such that it (CONF:8725)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8726)
 1. **MAY** contain zero or one [0..1] **code** (CONF:8727)
11. **MAY** contain [0..*] **entryRelationship** such that it (CONF:15492, CONF:15973)
 - a. Conforms to [Encounter Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.80)
12. code, if present, **SHOULD** contain zero or one [0..1] originalText (CONF:8719, R2.1=CONF:1198-8719)
13. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15970, R2.1=CONF:1198-15970)
14. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15971, R2.1=CONF:1198-15971)
15. 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:15972, R2.1=CONF:1198-15972)
16. participant with target class Service Delivery Location **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) STATIC (CONF:8740, R2.1=CONF:1198-8740, DSTU:1239)
17. sdct:dischargeDispositionCode **SHALL** be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status DYNAMIC or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition (CONF:9929)
 1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8710, R2.1=CONF:1198-8710)
 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8711, R2.1=CONF:1198-8711)
 3. **SHALL** contain at least one [1..*] **id** (CONF:8713, R2.1=CONF:1198-8713)
 4. **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet EncounterTypeCode 2.16.840.1.113883.3.88.12.80.32 **DYNAMIC** (CONF:8714)
 5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8715, R2.1=CONF:1198-8715)
 6. **MAY** contain zero or one [0..1] **sDTCDischargeDispositionCode** (CONF:9929)

The prefix sdct: SHALL be bound to the namespace "urn:hl7-org:sdct". The use of the namespace provides a necessary extension to CDA R2 for the use of the dischargeDispositionCode element.
7. **MAY** contain [0..*] **participant** such that it (CONF:8738, CONF:14903)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8722, CONF:8723, CONF:14899)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
9. **MAY** contain zero or more [0..*] **performer** such that it (CONF:8725)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8726)
 1. **MAY** contain zero or one [0..1] **code** (CONF:8727)
10. **MAY** contain [0..*] **entryRelationship** such that it (CONF:15492, CONF:15973)
 - a. Conforms to [Encounter Diagnosis](#) (templateId: 2.16.840.1.113883.10.20.22.4.80)
11. code, if present, **SHOULD** contain zero or one [0..1] originalText (CONF:8719, R2.1=CONF:1198-8719)
12. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15970, R2.1=CONF:1198-15970)
13. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15971, R2.1=CONF:1198-15971)
14. 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:15972, R2.1=CONF:1198-15972)

15. participant with target class Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) STATIC (CONF:8740, R2.1=CONF:1198-8740, DSTU:1239)
16. sdtc:dischargeDispositionCode **SHALL** be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status DYNAMIC or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition (CONF:9929)

Encounter Activities example

```
<encounter xmlns="urn:hl7-org:v3" xmlns:sdtc="urn:hl7-org:sdtc"
classCode="ENC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
  <id root="MDHT" extension="711029000"/>
  <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <sdtc:dischargeDispositionCode code="173796945"/>
  <performer>
    <assignedEntity>
      <id root="MDHT" extension="1758560517"/>
      <code code="429033597"/>
    </assignedEntity>
  </performer>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <id root="MDHT" extension="361494765"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.80"/>
      <id root="MDHT" extension="1196460436"/>
      <code code="29308-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Diagnosis"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </act>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <id root="MDHT" extension="1184932829"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
</encounter>
```

```

    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
        <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <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"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</act>
</entryRelationship>
</encounter>

```

Estimated Date Of Delivery

[Observation: templateId 2.16.840.1.113883.10.20.15.3.1]

This clinical statement represents the anticipated date when a woman will give birth.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16762, CONF:16763) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.15.3.1"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:444)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:445)
4. **SHALL** contain exactly one [1..1] **code/@code**="11778-8" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:446)
5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:448)
6. **SHALL** contain exactly one [1..1] **value**="TS" with **@xsi:type**="TS" (CONF:450)
 1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:444)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:445)
 3. **SHALL** contain exactly one [1..1] **code/@code**="11778-8" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:446)
 4. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:448)
 5. **SHALL** contain exactly one [1..1] **value**="TS" with **@xsi:type**="TS" (CONF:450)

Estimated Date Of Delivery example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" 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"
codeSystemName="LOINC"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <value xsi:type="TS"/>
</observation>
```

Family History Death Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.47]

This clinical statement records whether the family member is deceased

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8623, CONF:10495) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.47"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8621)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8622)
 4. **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:16889)
 5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8625)
 6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:8626)/**@code**="419099009" *Dead* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:Pending)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8621)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8622)
 3. **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:16889)
 4. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8625)
 5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:8626)/**@code**="419099009" *Dead* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:Pending)

Family History Death Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="664607242"/>
</observation>
```

Family History Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.46]

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).

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10496) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.46"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8586, R2.1=CONF:1198-8586)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8587, R2.1=CONF:1198-8587)
 4. **SHALL** contain at least one [1..*] **id** (CONF:8592, R2.1=CONF:1198-8592)
 5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:8589)
 6. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-8590)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8590, R2.1=CONF:1198-19098)
 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8593, R2.1=CONF:1198-8593)
 8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:8591, CONF:1198-8591)
 9. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8675, CONF:8676, CONF:15526, R2.1=CONF:1198-8675, R2.1=CONF:1198-8676, R2.1=CONF:1198-15526)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Age Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.31)
 10. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8678, CONF:8679, CONF:15527, R2.1=CONF:1198-8678, R2.1=CONF:1198-8679, R2.1=CONF:1198-15527)
 - a. Contains **@typeCode**="CAUS" *CAUS*
 - b. Conforms to [Family History Death Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.47)
 11. **entryRelationship** with target entry Age Observation **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:8677, R2.1=CONF:1198-8677)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8586, R2.1=CONF:1198-8586)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8587, R2.1=CONF:1198-8587)
 3. **SHALL** contain at least one [1..*] **id** (CONF:8592, R2.1=CONF:1198-8592)
 4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:8589)
 5. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-8590)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8590, R2.1=CONF:1198-19098)
 6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8593, R2.1=CONF:1198-8593)
 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:8591, CONF:1198-8591)
 8. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8675, CONF:8676, CONF:15526, R2.1=CONF:1198-8675, R2.1=CONF:1198-8676, R2.1=CONF:1198-15526)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Age Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.31)

9. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8678, CONF:8679, CONF:15527, R2.1=CONF:1198-8678, R2.1=CONF:1198-8679, R2.1=CONF:1198-15527)
 - a. Contains **@typeCode="CAUS"** *CAUS*
 - b. Conforms to **Family History Death Observation** (templateId: 2.16.840.1.113883.10.20.22.4.47)
10. **entryRelationship** with target entry Age Observation **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:8677, R2.1=CONF:1198-8677)

Family History Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.46"/>
  <id root="MDHT" extension="1265800720"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
      <id root="MDHT" extension="156219602"/>
      <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
      <id root="MDHT" extension="1870200678"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
</observation>
```

Family History Organizer

[Organizer: templateId 2.16.840.1.113883.10.20.22.4.45]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10497) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.45"**

2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8600, R2.1=CONF:1198-8600)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8601, R2.1=CONF:1198-8601)
4. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-8602)/**@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8602, R2.1=CONF:1198-19099)
5. **SHALL** contain [1..*] **component** such that it (CONF:8607, CONF:16888)
 - a. Conforms to [Family History Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.46)
6. **SHALL** contain exactly one [1..1] **subject** such that it (CONF:8609, R2.1=CONF:1198-8609)
 - a. **SHALL** contain exactly one [1..1] **relatedSubject** such that it (CONF:15244, R2.1=CONF:1198-15244)
 1. **SHALL** contain exactly one [1..1] **@classCode**="PRS" (CONF:15245, R2.1=CONF:1198-15245)
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15246, R2.1=CONF:1198-15246), which **SHOULD** be selected from ValueSet Family Member Value Set 2.16.840.1.113883.1.11.19579 **DYNAMIC** (CONF:15247, R2.1=CONF:1198-15247, DSTU:915)
 3. **SHOULD** contain zero or one [0..1] **subject** such that it (CONF:15248, R2.1=CONF:1198-15248)
 - a. **SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:15974, R2.1=CONF:1198-15974), which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:15975, R2.1=CONF:1198-15975)
 - b. **SHOULD** contain zero or one [0..1] **birthTime** (CONF:15976, R2.1=CONF:1198-15976)
 - c. **MAY** contain zero or one [0..1] **sDTCDeceasedInd** (CONF:15981, R2.1=CONF:1198-15981)

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.
 - d. **MAY** contain zero or one [0..1] **sDTCDeceasedTime** (CONF:15982, R2.1=CONF:1198-15982)

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.
 - e. **SHOULD** contain zero or more [0..*] **sDTCId** (CONF:15249, R2.1=CONF:1198-15249)

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.
 - f. age of a relative at the time of a family history observation **SHOULD** be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime (CONF:15983, R2.1=CONF:1198-15983)
1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8600, R2.1=CONF:1198-8600)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8601, R2.1=CONF:1198-8601)
3. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-8602)/**@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8602, R2.1=CONF:1198-19099)
4. **SHALL** contain [1..*] **component** such that it (CONF:8607, CONF:16888)
 - a. Conforms to [Family History Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.46)

5. **SHALL** contain exactly one [1..1] **subject** such that it (CONF:8609, R2.1=CONF:1198-8609)
 - a. **SHALL** contain exactly one [1..1] **relatedSubject** such that it (CONF:15244, R2.1=CONF:1198-15244)
 1. **SHALL** contain exactly one [1..1] **@classCode="PRS"** (CONF:15245, R2.1=CONF:1198-15245)
 2. **SHALL** contain exactly one [1..1] **code** (CONF:15246, R2.1=CONF:1198-15246), which **SHOULD** be selected from ValueSet Family Member Value Set 2.16.840.1.113883.1.11.19579 **DYNAMIC** (CONF:15247, R2.1=CONF:1198-15247, DSTU:915)
 3. **SHOULD** contain zero or one [0..1] **subject** such that it (CONF:15248, R2.1=CONF:1198-15248)
 - a. **SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:15974, R2.1=CONF:1198-15974), which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:15975, R2.1=CONF:1198-15975)
 - b. **SHOULD** contain zero or one [0..1] **birthTime** (CONF:15976, R2.1=CONF:1198-15976)
 - c. **MAY** contain zero or one [0..1] **sDTCDeceasedInd** (CONF:15981, R2.1=CONF:1198-15981)

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.
 - d. **MAY** contain zero or one [0..1] **sDTCDeceasedTime** (CONF:15982, R2.1=CONF:1198-15982)

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.
 - e. **SHOULD** contain zero or more [0..*] **sDTCId** (CONF:15249, R2.1=CONF:1198-15249)

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.
 - f. age of a relative at the time of a family history observation **SHOULD** be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime (CONF:15983, R2.1=CONF:1198-15983)

Family History Organizer example

```
<organizer xmlns="urn:hl7-org:v3" classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.45"/>
  <statusCode code="completed"/>
  <subject>
    <relatedSubject classCode="PRS">
      <code codeSystem="2.16.840.1.113883.5.111" codeSystemName="RoleCode"/>
      <subject>
        <administrativeGenderCode codeSystem="2.16.840.1.113883.5.1"
codeSystemName="AdministrativeGenderCode"/>
      </subject>
    </relatedSubject>
  </subject>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.46"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
    </entryRelationship>
  </component>
</organizer>
```

```

      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </observation>
</component>
</organizer>

```

Health Status Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.5]

The Health Status Observation records information about the current health status of the patient.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16756, CONF:16757) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.5"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9057, R2.0=CONF:1098-9057)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9072, R2.0=CONF:1098-9072)
 4. **SHALL** contain exactly one [1..1] **code/@code**="11323-3" *Health status* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:9073)
 5. **SHOULD** contain zero or one [0..1] **text** (CONF:9270)
 6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:9074)
 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *HealthStatus* 2.16.840.1.113883.1.11.20.12 **DYNAMIC** (CONF:9075, R2.0=CONF:1098-9075)
 8. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:9271)
 9. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15530)
 10. 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:9272)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9057, R2.0=CONF:1098-9057)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9072, R2.0=CONF:1098-9072)
 3. **SHALL** contain exactly one [1..1] **code/@code**="11323-3" *Health status* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:9073)
 4. **SHOULD** contain zero or one [0..1] **text** (CONF:9270)
 5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:9074)
 6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *HealthStatus* 2.16.840.1.113883.1.11.20.12 **DYNAMIC** (CONF:9075, R2.0=CONF:1098-9075)
 7. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:9271)
 8. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15530)
 9. 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:9272)

Health Status Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
  <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="802534680"/>
</observation>
```

Hospital Admission Diagnosis

[Act: templateId 2.16.840.1.113883.10.20.22.4.34]

The Hospital Admission Diagnosis entry describes the relevant problems or diagnoses at the time of admission.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16747, CONF:16748) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.34"
 2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7671, R2.1=CONF:1198-7671)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7672, R2.1=CONF:1198-7672)
 4. **SHALL** contain exactly one [1..1] **code/@code**="46241-6" *Admission diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7673)
 5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7674, CONF:7675, CONF:15535)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7671, R2.1=CONF:1198-7671)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7672, R2.1=CONF:1198-7672)
 3. **SHALL** contain exactly one [1..1] **code/@code**="46241-6" *Admission diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7673)
 4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7674, CONF:7675, CONF:15535)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

Hospital Admission Diagnosis example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.34"/>
  <code code="46241-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Admission diagnosis"/>
  <text>Text Value</text>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
```

```

        <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
<entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
        <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>Text Value</text>
        <statusCode code="completed"/>
    </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

Hospital Discharge Diagnosis

[Act: templateId 2.16.840.1.113883.10.20.22.4.33]

The Hospital Discharge Diagnosis act wraps relevant problems or diagnoses at the time of discharge that occurred during the hospitalization or that need to be followed after hospitalization. This entry requires at least one Problem Observation entry.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16764, CONF:16765) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.33"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7663, R2.1=CONF:1198-7663)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7664, R2.1=CONF:1198-7664)
4. **SHALL** contain exactly one [1..1] **code/@code**="11535-2" *Hospital Discharge Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7665)
5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7666, CONF:7667, CONF:15536)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7663, R2.1=CONF:1198-7663)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7664, R2.1=CONF:1198-7664)
3. **SHALL** contain exactly one [1..1] **code/@code**="11535-2" *Hospital Discharge Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7665)
4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:7666, CONF:7667, CONF:15536)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

Hospital Discharge Diagnosis example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.33"/>
  <code code="11535-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Hospital Discharge Diagnosis"/>
  <text>Text Value</text>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
        <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <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>Text Value</text>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </entryRelationship>
</act>
```

Immunization Activity

[SubstanceAdministration: templateId 2.16.840.1.113883.10.20.22.4.52]

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.
1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10498) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.52"
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8826, R2.1=CONF:1198-8826)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnInt 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:8827, R2.1=CONF:1198-8827)
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:8985, R2.1=CONF:1198-8985)

Use negationInd="true" to indicate that the immunization was not given.

5. **SHALL** contain at least one [1..*] **id** (CONF:8829, R2.1=CONF:1198-8829)
6. **MAY** contain zero or one [0..1] **code** (CONF:8830)
7. **SHOULD** contain zero or one [0..1] **text** (CONF:8831)
8. **SHALL** contain exactly one [1..1] **statusCode**="completed" (CONF:8833)
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8834, R2.1=CONF:1198-8834)
10. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:8838)

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 dispense act means that the current dispensation is the 3rd. A repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series. (CONF:8987).

11. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet Medication Route FDA Value Set 2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:8839)
12. **MAY** contain zero or one [0..1] **approachSiteCode**, which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:8840, R2.1=CONF:1198-8840)
13. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:8841, R2.1=CONF:1198-8841)
14. **MAY** contain zero or one [0..1] **administrationUnitCode** (CONF:8846), which **SHALL** be selected from ValueSet Medication Product Form Value Set 2.16.840.1.113883.3.88.12.3221.8.11 **DYNAMIC**
15. **MAY** contain [0..1] **participant** such that it (CONF:8850, CONF:8851, CONF:15547)
 - a. Conforms to [Drug Vehicle](#) (templateId: 2.16.840.1.113883.10.20.22.4.24)
16. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8853, CONF:8854, CONF:15537)
 - a. Contains **@typeCode**="RSON" *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
17. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8856, CONF:8857, CONF:15538)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
18. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8863, CONF:8864, CONF:15540)
 - a. Contains **@typeCode**="REFR" *REFR*
 - b. Conforms to [Medication Dispense](#) (templateId: 2.16.840.1.113883.10.20.22.4.18)
19. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8866, CONF:8867, CONF:15541)
 - a. Contains **@typeCode**="CAUS" *CAUS*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)

20. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8988, CONF:8989, CONF:15542, R2.1=CONF:1198-8988, R2.1=CONF:1198-8989, R2.1=CONF:1198-15542)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to **Immunization Refusal Reason** (templateId: 2.16.840.1.113883.10.20.22.4.53)
21. **SHALL** contain exactly one [1..1] **consumable** such that it (CONF:8847)
 - a. **SHALL** contain exactly one [1..1] **manufacturedProduct**, where its type is **Immunization Medication Information** (CONF:15546)
22. **SHOULD** contain [0..1] **performer** such that it (CONF:8849, R2.1=CONF:1198-8849)
 - a. Conforms to Performer2 from CDA
23. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8860, CONF:8861, CONF:15539)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to **Medication Supply Order** (templateId: 2.16.840.1.113883.10.20.22.4.17)
24. **MAY** contain zero or more [0..*] **precondition** such that it (CONF:8869)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PRCN"** (CONF:8870)
 - b. **SHALL** contain exactly one [1..1] **criterion**, where its type is **Precondition For Substance Administration** (CONF:15548)
25. This text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15543)
26. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15544)
27. 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:15545)
28. doseQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet UCUM Units of Measure (case sensitive) 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:8842, R2.1=CONF:1198-8842)
29. entryRelationship with target entry Instructions **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:8858)
30. participant with target entry Drug Vehicle **SHALL** contain exactly one [1..1] **@typeCode="CSM"** (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:8851, R2.1=CONF:1198-8851)
1. **SHALL** contain exactly one [1..1] **@classCode="SBADM"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8826, R2.1=CONF:1198-8826)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnInt 2.16.840.1.113883.11.20.9.18 STATIC 2014-09-01 (CONF:8827, R2.1=CONF:1198-8827)
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:8985, R2.1=CONF:1198-8985)

Use negationInd="true" to indicate that the immunization was not given.
4. **SHALL** contain at least one [1..*] **id** (CONF:8829, R2.1=CONF:1198-8829)
5. **MAY** contain zero or one [0..1] **code** (CONF:8830)
6. **SHOULD** contain zero or one [0..1] **text** (CONF:8831)
7. **SHALL** contain exactly one [1..1] **statusCode="completed"** (CONF:8833)
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8834, R2.1=CONF:1198-8834)
9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:8838)

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 dispense act means that the current dispensation is the 3rd. A repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series. (CONF:8987).
10. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet Medication Route FDA Value Set 2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:8839)
11. **MAY** contain zero or one [0..1] **approachSiteCode**, which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:8840, R2.1=CONF:1198-8840)
12. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:8841, R2.1=CONF:1198-8841)

13. **MAY** contain zero or one [0..1] **administrationUnitCode** (CONF:8846), which **SHALL** be selected from ValueSet Medication Product Form Value Set 2.16.840.1.113883.3.88.12.3221.8.11 **DYNAMIC**
14. **MAY** contain [0..1] **participant** such that it (CONF:8850, CONF:8851, CONF:15547)
 - a. Conforms to [Drug Vehicle](#) (templateId: 2.16.840.1.113883.10.20.22.4.24)
15. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8853, CONF:8854, CONF:15537)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
16. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8856, CONF:8857, CONF:15538)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
17. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8863, CONF:8864, CONF:15540)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Dispense](#) (templateId: 2.16.840.1.113883.10.20.22.4.18)
18. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8866, CONF:8867, CONF:15541)
 - a. Contains **@typeCode="CAUS"** *CAUS*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)
19. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8988, CONF:8989, CONF:15542, R2.1=CONF:1198-8988, R2.1=CONF:1198-8989, R2.1=CONF:1198-15542)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Immunization Refusal Reason](#) (templateId: 2.16.840.1.113883.10.20.22.4.53)
20. **SHALL** contain exactly one [1..1] **consumable** such that it (CONF:8847)
 - a. **SHALL** contain exactly one [1..1] **manufacturedProduct**, where its type is [Immunization Medication Information](#) (CONF:15546)
21. **SHOULD** contain [0..1] **performer** such that it (CONF:8849, R2.1=CONF:1198-8849)
 - a. Conforms to Performer2 from CDA
22. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8860, CONF:8861, CONF:15539)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Supply Order](#) (templateId: 2.16.840.1.113883.10.20.22.4.17)
23. **MAY** contain zero or more [0..*] **precondition** such that it (CONF:8869)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PRCN"** (CONF:8870)
 - b. **SHALL** contain exactly one [1..1] **criterion**, where its type is [Precondition For Substance Administration](#) (CONF:15548)
24. This text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15543)
25. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15544)
26. 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:15545)
27. doseQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet UCUM Units of Measure (case sensitive) 2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:8842, R2.1=CONF:1198-8842)
28. entryRelationship with target entry Instructions **SHALL** contain exactly one [1..1] **@inversionInd="true"** *True* (CONF:8858)
29. participant with target entry Drug Vehicle **SHALL** contain exactly one [1..1] **@typeCode="CSM"** (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:8851, R2.1=CONF:1198-8851)

Immunization Activity example

```
<substanceadministration xmlns="urn:hl7-org:v3" classCode="SBADM">
```

```

<templateId root="2.16.840.1.113883.10.20.22.4.52"/>
<templateId root="2.16.840.1.113883.10.20.22.4.52"/>
<id root="MDHT" extension="1359642479"/>
<code code="149486749"/>
<text>Text Value</text>
<statusCode code="completed"/>
<effectiveTime value="20190227"/>
<repeatNumber value="1"/>
<routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
  <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <doseQuantity/>
  <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.54"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.54"/>
      <id root="MDHT" extension="1636845585"/>
      <manufacturedMaterial>
        <code codeSystem="2.16.840.1.113883.12.292" codeSystemName="Vaccines
administered (CVX)"/>
      </manufacturedMaterial>
      <manufacturerOrganization/>
    </manufacturedProduct>
  </consumable>
</performer/>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <id root="MDHT" extension="470626148"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <repeatNumber value="1"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1504847749"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </act>
</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
    <id root="MDHT" extension="297342374"/>
    <code code="230308874"/>
    <text>Text Value</text>
    <statusCode code="completed"/>

```

```

<effectiveTime value="20190227"/>
<repeatNumber value="1"/>
<performer>
  <assignedEntity/>
</performer>
<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="789928003"/>
    <code code="899374153"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime value="20190227"/>
    <repeatNumber value="1"/>
    <author/>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <statusCode code="completed"/>
    </act>
  </entryRelationship>
</supply>
</entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <id root="MDHT" extension="1242432392"/>
    <code code="937724647"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <repeatNumber value="1"/>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <id root="MDHT" extension="311467836"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <repeatNumber value="1"/>
    </observation>
  </entryRelationship>
</entryRelationship>
<entryRelationship>
  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
    <id root="MDHT" extension="842604539"/>
    <code code="2095167487"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>

```

```

        <high value="2019"/>
      </effectiveTime>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <approachSiteCode code="1595927892"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <specimen/>
      <performer/>
      <entryRelationship typeCode="COMP" inversionInd="true"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
      <entryRelationship>
        <substanceAdministration classCode="SBADM">
          <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
          <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
          <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
        </substanceAdministration>
      </entryRelationship>
      <entryRelationship>
        <act classCode="ACT" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
          <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
          <statusCode code="completed"/>
        </act>
      </entryRelationship>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <id root="MDHT" extension="1990067494"/>
      <code code="1511160770"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime value="20190227"/>
      <repeatNumber value="1"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <doseQuantity/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable/>
      <performer/>
    </entryRelationship>
    <supply classCode="SPLY" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    </supply>

```

```

    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.53"/>
    <id root="MDHT" extension="442077125"/>
    <code codeSystem="2.16.840.1.113883.5.8" codeSystemName="ActReason"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <repeatNumber value="1"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="196653802"/>
    <code code="554359719"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime value="20190227"/>
    <repeatNumber value="1"/>
    <author/>
  </entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="397283131"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>

```

```

        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
      </act>
    </entryRelationship>
  </supply>
</entryRelationship>
<precondition typeCode="PRCN">
  <criterion>
    <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    <code code="1896651536"/>
    <text>Text Value</text>
  </criterion>
</precondition>
</substanceadministration>

```

Immunization Refusal Reason

[Observation: templateId 2.16.840.1.113883.10.20.22.4.53]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8993, CONF:10500) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.53"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8991)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8992)
 4. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet No Immunization Reason Value Set 2.16.840.1.113883.1.11.19717 **DYNAMIC** (CONF:8995)
 5. **SHALL** contain at least one [1..*] **id** (CONF:8994)
 6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8996)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8991)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8992)
 3. **SHALL** contain at least one [1..*] **id** (CONF:8994)
 4. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet No Immunization Reason Value Set 2.16.840.1.113883.1.11.19717 **DYNAMIC** (CONF:8995)
 5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8996)

Immunization Refusal Reason example

```

<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.53"/>
  <id root="MDHT" extension="541744402"/>
  <code codeSystem="2.16.840.1.113883.5.8" codeSystemName="ActReason"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
</observation>

```

Indication

[Observation: templateId 2.16.840.1.113883.10.20.22.4.19]

The Indication Observation documents the rationale for an activity. It can do this with the id element to reference a problem recorded elsewhere in the document or with a code and value to record the problem type and problem within the Indication. For example, the indication for a prescription of a painkiller might be a headache that is documented in the Problems Section

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7482, CONF:10502) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.19"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7480, R2.0=CONF:1098-7480)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7481, R2.0=CONF:1098-7481)
 4. **SHALL** contain exactly one [1..1] **id** (CONF:7483)
 5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:16886)
 6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7487, R2.0=CONF:1098-7487, R2.0=CONF:1098-19105)
 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7488, R2.0=CONF:1098-7488)
 8. **SHOULD** contain zero or one [0..1] **value** with **@xsi:type**="CD" (CONF:7489), which **SHOULD** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:15985)
 9. **MAY** satisfy: Set the observation/id equal to an ID on the problem list to signify that problem as an indication (CONF:16885)
 10. The value element **MAY** contain **@nullFlavor** (CONF:15990)
 11. If the diagnosis is unknown or the SNOMED code is unknown, **@nullFlavor** **SHOULD** be "UNK". If the code is something other than SNOMED, **@nullFlavor** **SHOULD** be "OTH" and the other code **SHOULD** be placed in the translation element. (CONF:15991)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7480, R2.0=CONF:1098-7480)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7481, R2.0=CONF:1098-7481)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:7483)
 4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:16886)
 5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7487, R2.0=CONF:1098-7487, R2.0=CONF:1098-19105)
 6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7488, R2.0=CONF:1098-7488)
 7. **SHOULD** contain zero or one [0..1] **value** with **@xsi:type**="CD" (CONF:7489), which **SHOULD** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:15985)
 8. **MAY** satisfy: Set the observation/id equal to an ID on the problem list to signify that problem as an indication (CONF:16885)
 9. The value element **MAY** contain **@nullFlavor** (CONF:15990)
 10. If the diagnosis is unknown or the SNOMED code is unknown, **@nullFlavor** **SHOULD** be "UNK". If the code is something other than SNOMED, **@nullFlavor** **SHOULD** be "OTH" and the other code **SHOULD** be placed in the translation element. (CONF:15991)

Indication example

```

<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <id root="MDHT" extension="1308155056"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="1730258914"/>
</observation>

```

Instructions

[Act: templateId 2.16.840.1.113883.10.20.22.4.20]

The Instructions 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 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7393, CONF:10503) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.20"
 2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7391, R2.0=CONF:1098-7391)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="INT" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7392, R2.0=CONF:1098-7392)
 4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet *PatientEducation* 2.16.840.1.113883.11.20.9.34 **DYNAMIC** (CONF:7394, R2.0=CONF:1098-7394)
 5. **SHOULD** contain zero or one [0..1] **text** (CONF:7395)
 6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7396, R2.0=CONF:1098-7396, R2.0=CONF:1098-19106)
 7. This text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15577)
 8. reference **SHOULD** contain exactly one [1..1] **@value** (CONF:15578)
 9. 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:15579)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7391, R2.0=CONF:1098-7391)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="INT" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7392, R2.0=CONF:1098-7392)
 3. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet *PatientEducation* 2.16.840.1.113883.11.20.9.34 **DYNAMIC** (CONF:7394, R2.0=CONF:1098-7394)
 4. **SHOULD** contain zero or one [0..1] **text** (CONF:7395)
 5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7396, R2.0=CONF:1098-7396, R2.0=CONF:1098-19106)
 6. This text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15577)
 7. reference **SHOULD** contain exactly one [1..1] **@value** (CONF:15578)

8. 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:15579)

Instructions example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
</act>
```

Medication Activity

[SubstanceAdministration: templateId 2.16.840.1.113883.10.20.22.4.16]

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. Medication activities in "EVN" mood reflect actual use. Medication timing is complex. This template requires that there be a substanceAdministration/effectiveTime valued with a time interval, representing the start and stop dates. Additional effectiveTime elements are optional, and can be used to represent frequency and other aspects of more detailed dosing regimens.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7499, CONF:10504) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.16"
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7496, R2.0=CONF:1098-7496)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvntInt 2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:7497, R2.0=CONF:1098-7497)
4. **SHALL** contain at least one [1..*] **id** (CONF:7500, R2.0=CONF:1098-7500)
5. **MAY** contain zero or one [0..1] **code** (Delivery Method) (CONF:7506)
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7507)
7. **MAY** contain zero or one [0..1] **routeCode** (Route), which **SHALL** be selected from ValueSet Medication Route FDA Value Set 2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:7514)
8. **MAY** contain zero or one [0..1] **approachSiteCode** (Site), which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:7515, R2.0=CONF:1098-7515)
9. **SHOULD** contain zero or one [0..1] **doseQuantity** (Dose) (CONF:7516)

Pre-coordinated consumable: If the consumable code is a precoordinated 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) 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
10. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:7517, R2.0=CONF:1098-7517)
11. **MAY** contain zero or one [0..1] **maxDoseQuantity** (Dose Restriction) (CONF:7518, R2.0=CONF:1098-7518)
12. **MAY** contain zero or one [0..1] **administrationUnitCode** (Product Form), which **SHALL** be selected from ValueSet Medication Product Form Value Set 2.16.840.1.113883.3.88.12.3221.8.11 **DYNAMIC** (CONF:7519)
13. **SHOULD** contain zero or one [0..1] **text** (Free Text Sig) (CONF:7501)

14. MAY contain zero or one [0..1] **repeatNumber** (CONF:7555)

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

15. MAY contain [0..1] **performer** such that it (CONF:7522, R2.0=CONF:1098-7522)

- a. Conforms to Performer2 from CDA

16. MAY contain [0..1] **entryRelationship** (Patient Instructions) such that it (CONF:7539, CONF:7540, CONF:16088)

- a. Contains @**typeCode**="SUBJ" *SUBJ*
- b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)

17. MAY contain [0..1] **entryRelationship** (Order Information) such that it (CONF:7543, CONF:7547, CONF:16089)

- a. Contains @**typeCode**="REFR" *REFR*
- b. Conforms to [Medication Supply Order](#) (templateId: 2.16.840.1.113883.10.20.22.4.17)

18. MAY contain [0..1] **entryRelationship** (Reaction) such that it (CONF:7552, CONF:7544, CONF:16091)

- a. Contains @**typeCode**="CAUS" *CAUS*
- b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)

19. MAY contain [0..*] **entryRelationship** such that it (CONF:7536, CONF:7537, CONF:16087)

- a. Contains @**typeCode**="RSON" *RSON*
- b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)

20. MAY contain [0..*] **entryRelationship** (Fulfillment Instructions) such that it (CONF:7549, CONF:7553, CONF:16090)

- a. Contains @**typeCode**="REFR" *REFR*
- b. Conforms to [Medication Dispense](#) (templateId: 2.16.840.1.113883.10.20.22.4.18)

21. MAY contain [0..*] **participant** such that it (CONF:7523, CONF:16086, R2.0=CONF:1098-7523, R2.0=CONF:1098-16086)

- a. Conforms to [Drug Vehicle](#) (templateId: 2.16.840.1.113883.10.20.22.4.24)

22. SHALL contain exactly one [1..1] **consumable** (Medication Information) such that it (CONF:7520)

- a. **SHALL** contain exactly one [1..1] **manufacturedProduct**, where its type is [Medication Information](#) (CONF:16085)

23. MAY contain zero or more [0..*] **precondition** such that it (CONF:7546)

- a. **SHALL** contain exactly one [1..1] @**typeCode**="PRCN" (CONF:7550)
- b. **SHALL** contain exactly one [1..1] **criterion**, where its type is [Precondition For Substance Administration](#) (CONF:16092)

24. Medication Activity SHOULD include doseQuantity OR rateQuantity (CONF:7529)

25. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15977)

26. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15978)

27. 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:15979)

28. SHALL contain exactly one [1..1] effectiveTime such that it **SHALL** contain exactly one [1..1] @xsi:type="IVL_TS" or contain exactly one [1..1] @xsi:type="TS" (CONF:7508)

29. If effectiveTime @xsi:type="IVL_TS", SHALL contain exactly one [1..1] low (CONF:7511)

30. If effectiveTime @xsi:type="IVL_TS", SHALL contain exactly one [1..1] high (CONF:7512)

31. If effectiveTime @xsi:type="TS", SHALL contain exactly one [1..1] @value (CONF:NEW, R2.0=CONF:1098-32775)

32. **SHOULD** contain zero or one [0..1] **effectiveTime** such that it **SHALL** contain exactly one [1..1] **@xsi:type** = "PIVL_TS" or "EIVL_TS" (CONF:7513, CONF:9105)
33. **effectiveTime** with **@xsi:type** = "PIVL_TS" or "EIVL_TS" **SHALL** contain exactly one [1..1] **@operator**="A" (CONF:9106, R2.0=CONF:1098-9106)
34. **doseQuantity**, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet UCUM Units of Measure (case sensitive) 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:7526, R2.0=CONF:1098-7526)
35. **participant** with target entry Drug Vehicle **SHALL** contain exactly one [1..1] **@typeCode**="CSM" (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:7524, R2.0=CONF:1098-7524)
36. **entryRelationship** with target entry Instructions **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:7542)
37. **rateQuantity**, if present, **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:7525, R2.0=CONF:1098-7525)
1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7496, R2.0=CONF:1098-7496)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnInt 2.16.840.1.113883.11.20.9.18 STATIC 2011-04-03 (CONF:7497, R2.0=CONF:1098-7497)
3. **SHALL** contain at least one [1..*] **id** (CONF:7500, R2.0=CONF:1098-7500)
4. **MAY** contain zero or one [0..1] **code** (Delivery Method) (CONF:7506)
5. **SHOULD** contain zero or one [0..1] **text** (Free Text Sig) (CONF:7501)
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7507)
7. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:7555)

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

8. **MAY** contain zero or one [0..1] **routeCode** (Route), which **SHALL** be selected from ValueSet Medication Route FDA Value Set 2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:7514)
9. **MAY** contain zero or one [0..1] **approachSiteCode** (Site), which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:7515, R2.0=CONF:1098-7515)
10. **SHOULD** contain zero or one [0..1] **doseQuantity** (Dose) (CONF:7516)

Pre-coordinated consumable: If the consumable code is a precoordinated 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) 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
11. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:7517, R2.0=CONF:1098-7517)
12. **MAY** contain zero or one [0..1] **maxDoseQuantity** (Dose Restriction) (CONF:7518, R2.0=CONF:1098-7518)
13. **MAY** contain zero or one [0..1] **administrationUnitCode** (Product Form), which **SHALL** be selected from ValueSet Medication Product Form Value Set 2.16.840.1.113883.3.88.12.3221.8.11 DYNAMIC (CONF:7519)
14. **MAY** contain [0..1] **performer** such that it (CONF:7522, R2.0=CONF:1098-7522)
 - a. Conforms to Performer2 from CDA
15. **MAY** contain [0..1] **entryRelationship** (Patient Instructions) such that it (CONF:7539, CONF:7540, CONF:16088)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)

16. **MAY** contain [0..1] **entryRelationship** (Order Information) such that it (CONF:7543, CONF:7547, CONF:16089)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Supply Order](#) (templateId: 2.16.840.1.113883.10.20.22.4.17)
17. **MAY** contain [0..1] **entryRelationship** (Reaction) such that it (CONF:7552, CONF:7544, CONF:16091)
 - a. Contains **@typeCode="CAUS"** *CAUS*
 - b. Conforms to [Reaction Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.9)
18. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7536, CONF:7537, CONF:16087)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
19. **MAY** contain [0..*] **entryRelationship** (Fulfillment Instructions) such that it (CONF:7549, CONF:7553, CONF:16090)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Dispense](#) (templateId: 2.16.840.1.113883.10.20.22.4.18)
20. **MAY** contain [0..*] **participant** such that it (CONF:7523, CONF:16086, R2.0=CONF:1098-7523, R2.0=CONF:1098-16086)
 - a. Conforms to [Drug Vehicle](#) (templateId: 2.16.840.1.113883.10.20.22.4.24)
21. **SHALL** contain exactly one [1..1] **consumable** (Medication Information) such that it (CONF:7520)
 - a. **SHALL** contain exactly one [1..1] **manufacturedProduct**, where its type is [Medication Information](#) (CONF:16085)
22. **MAY** contain zero or more [0..*] **precondition** such that it (CONF:7546)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PRCN"** (CONF:7550)
 - b. **SHALL** contain exactly one [1..1] **criterion**, where its type is [Precondition For Substance Administration](#) (CONF:16092)
23. Medication Activity **SHOULD** include doseQuantity OR rateQuantity (CONF:7529)
24. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15977)
25. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15978)
26. 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:15979)
27. **SHALL** contain exactly one [1..1] effectiveTime such that it **SHALL** contain exactly one [1..1] @xsi:type="IVL_TS" or contain exactly one [1..1] @xsi:type="TS" (CONF:7508)
28. If effectiveTime @xsi:type="IVL_TS", **SHALL** contain exactly one [1..1] low (CONF:7511)
29. If effectiveTime @xsi:type="IVL_TS", **SHALL** contain exactly one [1..1] high (CONF:7512)
30. If effectiveTime @xsi:type="TS", **SHALL** contain exactly one [1..1] @value (CONF:NEW, R2.0=CONF:1098-32775)
31. **SHOULD** contain zero or one [0..1] effectiveTime such that it **SHALL** contain exactly one [1..1] @xsi:type = "PIVL_TS" or "EIVL_TS" (CONF:7513, CONF:9105)
32. effectiveTime with @xsi:type = "PIVL_TS" or "EIVL_TS" **SHALL** contain exactly one [1..1] @operator="A" (CONF:9106, R2.0=CONF:1098-9106)
33. doseQuantity, if present, **SHOULD** contain zero or one [0..1] @unit, which **SHALL** be selected from ValueSet UCUM Units of Measure (case sensitive) 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:7526, R2.0=CONF:1098-7526)
34. participant with target entry Drug Vehicle **SHALL** contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF:7524, R2.0=CONF:1098-7524)
35. entryRelationship with target entry Instructions **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:7542)
36. rateQuantity, if present, **SHALL** contain exactly one [1..1] @unit, which **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:7525, R2.0=CONF:1098-7525)

Medication Activity example

```

<substanceadministration xmlns="urn:hl7-org:v3" classCode="SBADM">
  <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
  <id root="MDHT" extension="510880808"/>
  <code code="1081370679"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <repeatNumber value="1"/>
  <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
  <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <doseQuantity/>
  <rateQuantity/>
  <maxDoseQuantity/>
  <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      <id root="MDHT" extension="1805110487"/>
      <manufacturedMaterial>
        <code codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>
      </manufacturedMaterial>
      <manufacturerOrganization/>
    </manufacturedProduct>
  </consumable>
  <performer/>
  <entryRelationship>
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      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
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      <id root="MDHT" extension="683600813"/>
      <code code="351690486"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <repeatNumber value="1"/>
      <author/>
    </supply>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
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        <id root="MDHT" extension="1103589632"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
      <id root="MDHT" extension="486404428"/>
      <code code="2095927916"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <repeatNumber value="1"/>
    </observation>
  </entryRelationship>
</substanceadministration>

```

```

<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
    <id root="MDHT" extension="2054255407"/>
    <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <repeatNumber value="1"/>
  </observation>
</entryRelationship>
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  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
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    <code code="324549042"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <approachSiteCode code="1568995235"/>
    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <specimen/>
    <performer/>
    <entryRelationship typeCode="COMP" inversionInd="true"/>
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    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
</entryRelationship>
  <substanceAdministration classCode="SBADM">
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    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
  </substanceAdministration>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
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codeSystemName="SNOMEDCT"/>
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</entryRelationship>
</procedure>
</entryRelationship>
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    <id root="MDHT" extension="33299432"/>
    <code code="974198393"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <repeatNumber value="1"/>
  </substanceAdministration>
</entryRelationship>

```

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        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <doseQuantity/>
        <rateQuantity/>
        <maxDoseQuantity/>
        <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <consumable/>
        <performer/>
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                <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
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        </entryRelationship>
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                <statusCode code="completed"/>
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        </entryRelationship>
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                <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
                <statusCode code="completed"/>
            </act>
        </entryRelationship>
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            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
                <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
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            </observation>
        </entryRelationship>
        <entryRelationship>
            <supply classCode="SPLY" moodCode="EVN">
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            </supply>
        </entryRelationship>
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        </substanceAdministration>
        </entryRelationship>
        </observation>
    </entryRelationship>
    <entryRelationship>
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            <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
            <text>Text Value</text>
            <statusCode code="completed"/>
        </act>
    </entryRelationship>
    <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
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            <id root="MDHT" extension="1642782154"/>
            <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>

```



```

    <text>Text Value</text>
    <statusCode code="completed"/>
    <repeatNumber value="1"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <supply classCode="SPLY" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
    <id root="MDHT" extension="50772689"/>
    <code code="770653665"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <repeatNumber value="1"/>
    <performer>
      <assignedEntity/>
    </performer>
  </entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="833150132"/>
    <code code="1709443805"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <repeatNumber value="1"/>
    <author/>
  </entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</supply>
</entryRelationship>
</supply>
</entryRelationship>
<precondition typeCode="PRCN">
  <criterion>
    <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
    <code code="1638618473"/>
    <text>Text Value</text>
  </criterion>
</precondition>
</substanceadministration>

```

Medication Dispense

[Supply: templateId 2.16.840.1.113883.10.20.22.4.18]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7453, CONF:10505) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.18"
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7451, R2.0=CONF:1098-7451)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7452, R2.0=CONF:1098-7452)
4. **SHOULD** contain zero or one [0..1] **effectiveTime** (Dispense Date) (CONF:7456, R2.0=CONF:1098-7456)

5. **SHALL** contain at least one [1..*] **id** (Prescription Number) (CONF:7454, R2.0=CONF:1098-7454)
6. **SHOULD** contain zero or one [0..1] **repeatNumber** (Fill Number) (CONF:7457)

In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a dispense act means that the current dispensation is the 3rd (CONF: 16876)

7. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet Medication Fill Status 2.16.840.1.113883.3.88.12.80.64 **STATIC** 1 (CONF:7455)
8. **SHOULD** contain zero or one [0..1] **quantity** (Quantity Dispensed) (CONF:7458, R2.0=CONF:1098-7458)
9. **MAY** contain [0..1] **entryRelationship** (Order Information) such that it (CONF:7473, CONF:7474, CONF:15606)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Supply Order](#) (templateId: 2.16.840.1.113883.10.20.22.4.17)
10. **MAY** contain zero or one [0..1] **performer** such that it (CONF:7461, R2.0=CONF:1098-7461)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:7467, R2.0=CONF:1098-7467)
 1. **SHOULD** contain zero or one [0..1] **addr** (CONF:7468, R2.0=CONF:1098-7468)

11. supply act **SHALL** contain one product/Medication Information or one product/Immunization Medication Information template (CONF:15607, CONF:15608, CONF:9333)

1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7451, R2.0=CONF:1098-7451)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7452, R2.0=CONF:1098-7452)
3. **SHALL** contain at least one [1..*] **id** (Prescription Number) (CONF:7454, R2.0=CONF:1098-7454)
4. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet Medication Fill Status 2.16.840.1.113883.3.88.12.80.64 **STATIC** 1 (CONF:7455)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (Dispense Date) (CONF:7456, R2.0=CONF:1098-7456)
6. **SHOULD** contain zero or one [0..1] **repeatNumber** (Fill Number) (CONF:7457)

In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a dispense act means that the current dispensation is the 3rd (CONF: 16876)
7. **SHOULD** contain zero or one [0..1] **quantity** (Quantity Dispensed) (CONF:7458, R2.0=CONF:1098-7458)
8. **MAY** contain [0..1] **entryRelationship** (Order Information) such that it (CONF:7473, CONF:7474, CONF:15606)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Medication Supply Order](#) (templateId: 2.16.840.1.113883.10.20.22.4.17)
9. **MAY** contain zero or one [0..1] **performer** such that it (CONF:7461, R2.0=CONF:1098-7461)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:7467, R2.0=CONF:1098-7467)
 1. **SHOULD** contain zero or one [0..1] **addr** (CONF:7468, R2.0=CONF:1098-7468)
10. supply act **SHALL** contain one product/Medication Information or one product/Immunization Medication Information template (CONF:15607, CONF:15608, CONF:9333)

Medication Dispense example

```
<supply xmlns="urn:hl7-org:v3" classCode="SPLY" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
  <id root="MDHT" extension="1166864376"/>
  <text>Text Value</text>
  <effectiveTime value="20190227"/>
  <repeatNumber value="1"/>
  <quantity/>
```

```

<performer>
  <assignedEntity>
    <id root="MDHT" extension="362136185"/>
  </assignedEntity>
</performer>
<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="283811957"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <repeatNumber value="1"/>
    <quantity/>
    <author/>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <id root="MDHT" extension="113757471"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
      </act>
    </entryRelationship>
  </supply>
</entryRelationship>
</supply>

```

Medication Supply Order

[Supply: templateId 2.16.840.1.113883.10.20.22.4.17]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7429, CONF:10507) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.17"
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7427, R2.0=CONF:1098-7427)
3. **SHALL** contain exactly one [1..1] **@moodCode**="INT" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7428, R2.0=CONF:1098-7428)
4. **SHALL** contain at least one [1..*] **id** (Order Number) (CONF:7430, R2.0=CONF:1098-7430)
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7432)
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (Order Expiration Date/Time) (CONF:15143, R2.0=CONF:1098-15143)
7. **SHOULD** contain zero or one [0..1] **repeatNumber** (Fills) (CONF:7434)

In "INT" (intent) mood, the repeatNumber defines the number of allowed fills. For example, a repeatNumber of "3" means that the substance can be supplied up to 3 times (or, can be dispensed, with 2 refills) (CONF:16869)

8. **SHOULD** contain zero or one [0..1] **quantity** (Quantity Ordered) (CONF:7436, R2.0=CONF:1098-7436)
9. **MAY** contain [0..1] **author** (Ordering Provider) such that it (CONF:7438, R2.0=CONF:1098-7438)
 - a. Conforms to Author from CDA

10. **MAY** contain [0..1] **entryRelationship** (Patient Instructions) such that it (CONF:7442, CONF:7444, CONF:16095)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
11. **entryRelationship** with target entry Instructions if present, **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:7445)
12. **effectiveTime** **SHALL** contain exactly one [1..1] high (CONF:15144, R2.0=CONF:1098-15144)
13. **supply act** **SHALL** contain one product/Medication Information or one product/Immunization Medication Information template (CONF:16870)
1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7427, R2.0=CONF:1098-7427)
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7428, R2.0=CONF:1098-7428)
3. **SHALL** contain at least one [1..*] **id** (Order Number) (CONF:7430, R2.0=CONF:1098-7430)
4. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7432)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (Order Expiration Date/Time) (CONF:15143, R2.0=CONF:1098-15143)
6. **SHOULD** contain zero or one [0..1] **repeatNumber** (Fills) (CONF:7434)

In "INT" (intent) mood, the repeatNumber defines the number of allowed fills. For example, a repeatNumber of "3" means that the substance can be supplied up to 3 times (or, can be dispensed, with 2 refills) (CONF:16869)
7. **SHOULD** contain zero or one [0..1] **quantity** (Quantity Ordered) (CONF:7436, R2.0=CONF:1098-7436)
8. **MAY** contain [0..1] **author** (Ordering Provider) such that it (CONF:7438, R2.0=CONF:1098-7438)
 - a. Conforms to Author from CDA
9. **MAY** contain [0..1] **entryRelationship** (Patient Instructions) such that it (CONF:7442, CONF:7444, CONF:16095)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
10. **entryRelationship** with target entry Instructions if present, **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:7445)
11. **effectiveTime** **SHALL** contain exactly one [1..1] high (CONF:15144, R2.0=CONF:1098-15144)
12. **supply act** **SHALL** contain one product/Medication Information or one product/Immunization Medication Information template (CONF:16870)

Medication Supply Order example

```
<supply xmlns="urn:hl7-org:v3" classCode="SPLY" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
  <id root="MDHT" extension="1352142040"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime value="20190227"/>
  <repeatNumber value="1"/>
  <quantity/>
  <author/>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <id root="MDHT" extension="1358703467"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
```

```

        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </act>
  </entryRelationship>
</supply>

```

Non Medicinal Supply Activity

[Supply: templateId 2.16.840.1.113883.10.20.22.4.50]

This template records non-medicinal supplies provided, such as medical equipment

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8747, CONF:10509) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.50"
 2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8745, R2.0=CONF:1098-8745)
 3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnt 2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:8746, R2.0=CONF:1098-8746)
 4. **SHALL** contain at least one [1..*] **id** (CONF:8748, R2.0=CONF:1098-8748)
 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:8749)
 6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:15498, R2.0=CONF:1098-15498)
 7. **SHOULD** contain zero or one [0..1] **quantity** (CONF:8751, R2.0=CONF:1098-8751)
 8. **SHALL** contain [1..1] **participant** such that it (CONF:8752, CONF:15900)
 - a. Conforms to [Product Instance](#) (templateId: 2.16.840.1.113883.10.20.22.4.37)
 9. **effectiveTime**, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:16867, R2.0=CONF:1098-16867)
 10. **participant** with target entry **Product Instance** **SHALL** contain exactly one [1..1] **@typeCode**="PRD" **Product** (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) **STATIC** (CONF:8754, R2.0=CONF:1098-8754)
1. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8745, R2.0=CONF:1098-8745)
 2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnt 2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:8746, R2.0=CONF:1098-8746)
 3. **SHALL** contain at least one [1..*] **id** (CONF:8748, R2.0=CONF:1098-8748)
 4. **SHALL** contain exactly one [1..1] **statusCode** (CONF:8749)
 5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:15498, R2.0=CONF:1098-15498)
 6. **SHOULD** contain zero or one [0..1] **quantity** (CONF:8751, R2.0=CONF:1098-8751)
 7. **SHALL** contain [1..1] **participant** such that it (CONF:8752, CONF:15900)
 - a. Conforms to [Product Instance](#) (templateId: 2.16.840.1.113883.10.20.22.4.37)
 8. **effectiveTime**, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:16867, R2.0=CONF:1098-16867)
 9. **participant** with target entry **Product Instance** **SHALL** contain exactly one [1..1] **@typeCode**="PRD" **Product** (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) **STATIC** (CONF:8754, R2.0=CONF:1098-8754)

Non Medicinal Supply Activity example

```

<supply xmlns="urn:hl7-org:v3" classCode="SPLY">
  <templateId root="2.16.840.1.113883.10.20.22.4.50"/>
  <id root="MDHT" extension="337899133"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime value="20190227"/>
  <quantity/>
</supply>

```

Plan Of Care Activity Act

[Act: templateId 2.16.840.1.113883.10.20.22.4.39]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8544, CONF:10510) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.39"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8538, R2.0=CONF:1098-8538)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8539)
4. **SHALL** contain at least one [1..*] **id** (CONF:8546, R2.0=CONF:1098-8546)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8538, R2.0=CONF:1098-8538)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8539)
3. **SHALL** contain at least one [1..*] **id** (CONF:8546, R2.0=CONF:1098-8546)
4. contain exactly one [1..1] **datatypes:code**

Plan Of Care Activity Act example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT">
  <templateId root="2.16.840.1.113883.10.20.22.4.39"/>
  <id root="MDHT" extension="912315944"/>
  <code code="732776114"/>
  <text>Text Value</text>
</act>
```

Plan Of Care Activity Encounter

[Encounter: templateId 2.16.840.1.113883.10.20.22.4.40]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8566, CONF:10511) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.40"
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8564, R2.0=CONF:1098-8564)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8565)
4. **SHALL** contain at least one [1..*] **id** (CONF:8567, R2.0=CONF:1098-8567)
1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8564, R2.0=CONF:1098-8564)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8565)
3. **SHALL** contain at least one [1..*] **id** (CONF:8567, R2.0=CONF:1098-8567)

Plan Of Care Activity Encounter example

```
<encounter xmlns="urn:hl7-org:v3" classCode="ENC">
```

```
<templateId root="2.16.840.1.113883.10.20.22.4.40"/>
<id root="MDHT" extension="1838630911"/>
<text>Text Value</text>
</encounter>
```

Plan Of Care Activity Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.44]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8583, CONF:10512) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.44"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8581, R2.0=CONF:1098-8581)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Observation) 2.16.840.1.113883.11.20.9.25 **STATIC** (CONF:8582)
4. **SHALL** contain at least one [1..*] **id** (CONF:8584, R2.0=CONF:1098-8584)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8581, R2.0=CONF:1098-8581)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Observation) 2.16.840.1.113883.11.20.9.25 **STATIC** (CONF:8582)
3. **SHALL** contain at least one [1..*] **id** (CONF:8584, R2.0=CONF:1098-8584)
4. contain exactly one [1..1] **datatypes:code**

Plan Of Care Activity Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.22.4.44"/>
  <id root="MDHT" extension="149289986"/>
  <code code="1666514209"/>
  <text>Text Value</text>
</observation>
```

Plan Of Care Activity Procedure

[Procedure: templateId 2.16.840.1.113883.10.20.22.4.41]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8570, CONF:10513) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.41"
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8568, R2.0=CONF:1098-8568)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8569)
4. **SHALL** contain at least one [1..*] **id** (CONF:8571, R2.0=CONF:1098-8571)
1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8568, R2.0=CONF:1098-8568)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Plan of Care moodCode (Act/Encounter/Procedure) 2.16.840.1.113883.11.20.9.23 **STATIC** (CONF:8569)
3. **SHALL** contain at least one [1..*] **id** (CONF:8571, R2.0=CONF:1098-8571)

Plan Of Care Activity Procedure example

```
<procedure xmlns="urn:hl7-org:v3" classCode="PROC">
  <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
  <id root="MDHT" extension="538275252"/>
  <text>Text Value</text>
</procedure>
```

Plan Of Care Activity Substance Administration

[SubstanceAdministration: templateId 2.16.840.1.113883.10.20.22.4.42]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8574, CONF:10514) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.42"
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8572, R2.0=CONF:1098-8572)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) 2.16.840.1.113883.11.20.9.24 **STATIC** (CONF:8573)
4. **SHALL** contain at least one [1..*] **id** (CONF:8575, R2.0=CONF:1098-8575)
 1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8572, R2.0=CONF:1098-8572)
 2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) 2.16.840.1.113883.11.20.9.24 **STATIC** (CONF:8573)
 3. **SHALL** contain at least one [1..*] **id** (CONF:8575, R2.0=CONF:1098-8575)
 4. contain exactly one [1..1] **consumable**, where its type is Consumable
 - a. Conforms to Consumable

Plan Of Care Activity Substance Administration example

```
<substanceadministration xmlns="urn:hl7-org:v3" classCode="SBADM">
  <templateId root="2.16.840.1.113883.10.20.22.4.42"/>
  <id root="MDHT" extension="1369226427"/>
  <text>Text Value</text>
  <consumable/>
</substanceadministration>
```

Plan Of Care Activity Supply

[Supply: templateId 2.16.840.1.113883.10.20.22.4.43]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8579, CONF:10515) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.43"
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8577, R2.0=CONF:1098-8577)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) 2.16.840.1.113883.11.20.9.24 **STATIC** (CONF:8578)
4. **SHALL** contain at least one [1..*] **id** (CONF:8580, R2.0=CONF:1098-8580)

1. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8577, R2.0=CONF:1098-8577)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) 2.16.840.1.113883.11.20.9.24 **STATIC** (CONF:8578)
3. **SHALL** contain at least one [1..*] **id** (CONF:8580, R2.0=CONF:1098-8580)

Plan Of Care Activity Supply example

```
<supply xmlns="urn:hl7-org:v3" classCode="SPLY">
  <templateId root="2.16.840.1.113883.10.20.22.4.43"/>
  <id root="MDHT" extension="631258473"/>
  <text>Text Value</text>
</supply>
```

Policy Activity

[Act: templateId 2.16.840.1.113883.10.20.22.4.61]

A policy activity represents the policy or program providing the coverage.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8900, CONF:10516) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.61"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8898, R2.1=CONF:1198-8898)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8899, R2.1=CONF:1198-8899)
4. **SHALL** contain at least one [1..*] **id** (CONF:8901, R2.1=CONF:1198-8901)

This id is a unique identifier for the policy or program providing the coverage

5. **SHALL** contain exactly one [1..1] **code** (CONF:8903), which **SHOULD** be selected from ValueSet Health Insurance Type 2.16.840.1.113883.3.88.12.3221.5.2 **DYNAMIC** (CONF:19185)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8902)
7. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8906)
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CONF:8907, R2.1=CONF:1198-8907)
 - b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8908)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8909, R2.1=CONF:1198-8909)
 2. **SHOULD** contain zero or one [0..1] **code** (CONF:8914, R2.1=CONF:1198-8914), which **SHOULD** be selected from ValueSet Financially Responsible Party Type Value Set 2.16.840.1.113883.1.11.10416 **DYNAMIC** (CONF:15992, R2.1=CONF:1198-15992)
 3. **MAY** contain zero or one [0..1] **addr** (CONF:8910, CONF:10481)
 4. **MAY** contain zero or one [0..1] **telecom** (CONF:8911)
 5. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8912, R2.1=CONF:1198-8912)
 - a. **SHOULD** contain zero or one [0..1] **name** (CONF:1198-8913)
 6. The content of **addr** **SHALL** be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10481)

8. **SHOULD** contain zero or one [0..1] **performer** such that it (CONF:8961)
 - a. **SHOULD** contain zero or one [0..1] **time** (CONF:8963, R2.1=CONF:1198-8963)
 - b. **SHOULD** contain zero or one [0..1] **@typeCode="PRF"** (CONF:8961)
 - c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8962)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:8968)/**@code="GUAR"** *Guarantor* (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) (CONF:16096)
 2. **SHOULD** contain zero or one [0..1] **addr** (CONF:8964, CONF:10482) such that it

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:10482)

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:10482)
 3. **SHOULD** contain zero or one [0..1] **telecom** (CONF:8965)
 4. **SHOULD** include assignedEntity/assignedPerson/name AND/OR assignedEntity/representedOrganization/name (CONF:8967, R2.1=CONF:1198-8967)
 5. 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:10482)
9. **SHALL** contain exactly one [1..1] **participant** such that it (CONF:8916)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COV"** (CONF:8917, R2.1=CONF:1198-8917)
 - b. **SHOULD** contain zero or one [0..1] **time** (CONF:8918, R2.1=CONF:1198-8918)
 - c. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8921)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8922)
 2. **SHALL** contain exactly one [1..1] **code** (CONF:8923, R2.1=CONF:1198-8923), which **SHOULD** be selected from ValueSet Coverage Role Type 2.16.840.1.113883.1.11.18877 DYNAMIC (CONF:16078, R2.1=CONF:1198-16078)
 3. **SHOULD** contain zero or one [0..1] **addr** (CONF:8956, R2.1=CONF:1198-8956)
 4. **SHOULD** contain zero or one [0..1] **playingEntity** such that it (CONF:8932)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:8930)
 - b. If the member date of birth as recorded by the health plan differs from the patient date of birth as recorded in the registration/medication summary, then the member date of birth **SHALL** be recorded in sdte:birthTime. (CONF:8933)
 - d. The time, if present, **SHOULD** contain zero or one [0..1] low (CONF:8919, R2.1=CONF:1198-8919)
 - e. The time, if present, **SHOULD** contain zero or one [0..1] high (CONF:8920, R2.1=CONF:1198-8920)
10. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:8934, R2.1=CONF:1198-8934)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="HLD"** (CONF:8935, R2.1=CONF:1198-8935)
 - b. **MAY** contain zero or one [0..1] **time** (CONF:8938, R2.1=CONF:1198-8938)
 - c. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8936, R2.1=CONF:1198-8936)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8937, R2.1=CONF:1198-8937)

This id is a unique identifier for the subscriber of the coverage (CONF:10120)
 2. **SHOULD** contain zero or one [0..1] **addr** (CONF:8925, R2.1=CONF:1198-8925)
11. **SHALL** contain at least one [1..*] **entryRelationship** such that it (CONF:8939, R2.1=CONF:1198-8939)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CONF:8940, R2.1=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:8942, R2.1=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:8943, R2.1=CONF:1198-8943)

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8898, R2.1=CONF:1198-8898)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8899, R2.1=CONF:1198-8899)
3. **SHALL** contain at least one [1..*] **id** (CONF:8901, R2.1=CONF:1198-8901)

This id is a unique identifier for the policy or program providing the coverage

4. **SHALL** contain exactly one [1..1] **code** (CONF:8903), which **SHOULD** be selected from ValueSet *Health Insurance Type* 2.16.840.1.113883.3.88.12.3221.5.2 **DYNAMIC** (CONF:19185)
5. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8902)
6. **SHALL** contain exactly one [1..1] **performer** such that it (CONF:8906)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:8907, R2.1=CONF:1198-8907)
 - b. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8908)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8909, R2.1=CONF:1198-8909)
 2. **SHOULD** contain zero or one [0..1] **code** (CONF:8914, R2.1=CONF:1198-8914), which **SHOULD** be selected from ValueSet *Financially Responsible Party Type Value Set* 2.16.840.1.113883.1.11.10416 **DYNAMIC** (CONF:15992, R2.1=CONF:1198-15992)
 3. **MAY** contain zero or one [0..1] **addr** (CONF:8910, CONF:10481)
 4. **MAY** contain zero or one [0..1] **telecom** (CONF:8911)
 5. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8912, R2.1=CONF:1198-8912)
 - a. **SHOULD** contain zero or one [0..1] **name** (CONF:1198-8913)
 6. The content of **addr** **SHALL** be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10481)
7. **SHOULD** contain zero or one [0..1] **performer** such that it (CONF:8961)
 - a. **SHOULD** contain zero or one [0..1] **time** (CONF:8963, R2.1=CONF:1198-8963)
 - b. **SHOULD** contain zero or one [0..1] **@typeCode="PRF"** (CONF:8961)
 - c. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8962)
 1. **SHALL** contain exactly one [1..1] **code** (CONF:8968)/**@code="GUAR"** *Guarantor* (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) (CONF:16096)
 2. **SHOULD** contain zero or one [0..1] **addr** (CONF:8964, CONF:10482) such that it

The content of addr SHALL be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10482)

The content of addr SHALL be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10482)
 3. **SHOULD** contain zero or one [0..1] **telecom** (CONF:8965)
 4. **SHOULD** include assignedEntity/assignedPerson/name AND/OR assignedEntity/representedOrganization/name (CONF:8967, R2.1=CONF:1198-8967)
 5. The content of **addr** **SHALL** be a conformant US Realm Address (AD.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:10482)

8. **SHALL** contain exactly one [1..1] **participant** such that it (CONF:8916)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="COV"** (CONF:8917, R2.1=CONF:1198-8917)
 - b. **SHOULD** contain zero or one [0..1] **time** (CONF:8918, R2.1=CONF:1198-8918)
 - c. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8921)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8922)
 2. **SHALL** contain exactly one [1..1] **code** (CONF:8923, R2.1=CONF:1198-8923), which **SHOULD** be selected from ValueSet Coverage Role Type 2.16.840.1.113883.1.11.18877 **DYNAMIC** (CONF:16078, R2.1=CONF:1198-16078)
 3. **SHOULD** contain zero or one [0..1] **addr** (CONF:8956, R2.1=CONF:1198-8956)
 4. **SHOULD** contain zero or one [0..1] **playingEntity** such that it (CONF:8932)
 - a. **SHALL** contain exactly one [1..1] **name** (CONF:8930)
 - b. If the member date of birth as recorded by the health plan differs from the patient date of birth as recorded in the registration/medication summary, then the member date of birth **SHALL** be recorded in sdtc:birthTime. (CONF:8933)
 - d. The time, if present, **SHOULD** contain zero or one [0..1] low (CONF:8919, R2.1=CONF:1198-8919)
 - e. The time, if present, **SHOULD** contain zero or one [0..1] high (CONF:8920, R2.1=CONF:1198-8920)
9. **SHOULD** contain zero or one [0..1] **participant** such that it (CONF:8934, R2.1=CONF:1198-8934)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="HLD"** (CONF:8935, R2.1=CONF:1198-8935)
 - b. **MAY** contain zero or one [0..1] **time** (CONF:8938, R2.1=CONF:1198-8938)
 - c. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:8936, R2.1=CONF:1198-8936)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8937, R2.1=CONF:1198-8937)

This id is a unique identifier for the subscriber of the coverage (CONF:10120)
 2. **SHOULD** contain zero or one [0..1] **addr** (CONF:8925, R2.1=CONF:1198-8925)
10. **SHALL** contain at least one [1..*] **entryRelationship** such that it (CONF:8939, R2.1=CONF:1198-8939)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CONF:8940, R2.1=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:8942, R2.1=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:8943, R2.1=CONF:1198-8943)

Policy Activity example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.61"/>
  <id root="MDHT" extension="768482521"/>
  <code codeSystemName=""/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <performer typeCode="PRF">
    <templateId root="2.16.840.1.113883.10.20.22.4.87"/>
    <assignedEntity>
      <id root="MDHT" extension="1403313492"/>
      <code codeSystem="2.16.840.1.113883.5.110"
codeSystemName="HL7RoleClass"/>
      <telecom/>
      <representedOrganization/>
    </assignedEntity>
  </performer>
  <performer typeCode="PRF">
    <templateId root="2.16.840.1.113883.10.20.22.4.88"/>
    <time>
```

```

        <low value="2019"/>
        <high value="2019"/>
      </time>
      <assignedEntity>
        <id root="MDHT" extension="971994645"/>
        <code code="GUAR" codeSystem="2.16.840.1.113883.5.110"
codeSystemName="HL7RoleClass" displayName="Guarantor"/>
        <telecom/>
      </assignedEntity>
    </performer>
    <participant typeCode="COV">
      <templateId root="2.16.840.1.113883.10.20.22.4.89"/>
      <time>
        <low value="2019"/>
        <high value="2019"/>
      </time>
      <participantRole>
        <id root="MDHT" extension="1694349182"/>
        <code codeSystem="2.16.840.1.113883.5.111" codeSystemName="RoleCode"/>
        <playingEntity/>
      </participantRole>
    </participant>
    <participant typeCode="HLD">
      <templateId root="2.16.840.1.113883.10.20.22.4.90"/>
      <time>
        <low value="2019"/>
        <high value="2019"/>
      </time>
      <participantRole>
        <id root="MDHT" extension="653407101"/>
      </participantRole>
    </participant>
    <entryRelationship typeCode="REFR"/>
  </act>

```

Postprocedure Diagnosis

[Act: templateId 2.16.840.1.113883.10.20.22.4.51]

The Postprocedure Diagnosis entry encodes the diagnosis or diagnoses discovered or confirmed during the procedure. Often it is the same as the pre-procedure diagnosis or indication.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16766, CONF:16767) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.51"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8756, R2.1=CONF:1198-8756)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8757, R2.1=CONF:1198-8757)
4. **SHALL** contain exactly one [1..1] **code/@code**="59769-0" *Postprocedure Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:8758)
5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:8759, CONF:8760, CONF:15583)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8756, R2.1=CONF:1198-8756)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8757, R2.1=CONF:1198-8757)

3. **SHALL** contain exactly one [1..1] **code/@code="59769-0" *Postprocedure Diagnosis*** (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:8758)
4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:8759, CONF:8760, CONF:15583)
 - a. Contains **@typeCode="SUBJ" *SUBJ***
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

Postprocedure Diagnosis example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.51"/>
  <code code="59769-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Postprocedure Diagnosis"/>
  <text>Text Value</text>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
          <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
          <text>Text Value</text>
          <statusCode code="completed"/>
        </observation>
      </entryRelationship>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
      <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <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>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
</observation>
</entryRelationship>
</act>
```

Pregnancy Observation

[Observation: templateId 2.16.840.1.113883.10.20.15.3.8]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16768, CONF:16868) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.15.3.8"**

2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:451)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:452)
4. **SHALL** contain exactly one [1..1] **code** (CONF:454)/**@code="ASSERTION"** *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode)
5. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:455)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:457)/**@code="77386006"** *Pregnant* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:Pending)

The value of the observation shall be recording using a data type appropriate to the coded observation according to the table provided by IHE PCC specification.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:2018)
8. **MAY** contain [0..1] **entryRelationship** such that it (CONF:458, CONF:459, CONF:15584)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Estimated Date Of Delivery](#) (templateId: 2.16.840.1.113883.10.20.15.3.1)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:451)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:452)
3. **SHALL** contain exactly one [1..1] **code** (CONF:454)/**@code="ASSERTION"** *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode)
4. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:455)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:2018)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:457)/**@code="77386006"** *Pregnant* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:Pending)

The value of the observation shall be recording using a data type appropriate to the coded observation according to the table provided by IHE PCC specification.

7. **MAY** contain [0..1] **entryRelationship** such that it (CONF:458, CONF:459, CONF:15584)
 - a. Contains **@typeCode="REFR"** *REFR*
 - b. Conforms to [Estimated Date Of Delivery](#) (templateId: 2.16.840.1.113883.10.20.15.3.1)

Pregnancy Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.15.3.8"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="993317197"/>
  <entryRelationship>
    <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"
codeSystemName="LOINC"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
</observation>
```

```

    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <value xsi:type="TS"/>
  </observation>
</entryRelationship>
</observation>

```

Preoperative Diagnosis

[Act: templateId 2.16.840.1.113883.10.20.22.4.65]

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16770, CONF:16771) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.65"
 2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:10090, R2.1=CONF:1198-10090)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:10091, R2.1=CONF:1198-10091)
 4. **SHALL** contain exactly one [1..1] **code/@code**="10219-4" *Preoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10092)
 5. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:10093, CONF:10094, CONF:15605)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)
-
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:10090, R2.1=CONF:1198-10090)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:10091, R2.1=CONF:1198-10091)
 3. **SHALL** contain exactly one [1..1] **code/@code**="10219-4" *Preoperative Diagnosis* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10092)
 4. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:10093, CONF:10094, CONF:15605)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

Preoperative Diagnosis example

```

<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.65"/>
  <code code="10219-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Preoperative Diagnosis"/>
  <text>Text Value</text>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <code code="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
      <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
</act>

```



```

</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
    <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <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>Text Value</text>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

Problem Concern

[Act: templateId 2.16.840.1.113883.10.20.22.4.3]

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. 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). A Problem Concern Act can contain many Problem Observations (templateId 2.16.840.1.113883.10.20.22.4.2). 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:16772, CONF:16773, CONF:1198-32509) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.3"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9024, R2.1=CONF:1198-9024)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9025, R2.1=CONF:1198-9025)
4. **SHALL** contain at least one [1..*] **id** (CONF:9026, R2.1=CONF:1198-9026)
5. **SHALL** contain exactly one [1..1] **code** (CONF:9027)/**@code**="CONC" *Concern* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9440)

6. **SHALL** contain exactly one [1..1] **statusCode** (Concern Status), which **SHALL** be selected from ValueSet ProblemActStatusCode 2.16.840.1.113883.11.20.9.19 **STATIC** 2011-09-09 (CONF:9029)

The statusCode associated with any concern must be one of the following values: **active**: A concern that is still being tracked. **suspended**: A concern that is active, but which may be set aside. For example, this value might be used to suspend concern about a patient problem after some period of remission, but before assumption that the concern has been resolved. **aborted**: A concern that is no longer actively being tracked, but for reasons other than because the problem was resolved. This value might be used to mark a concern as being aborted after a patient leaves care against medical advice. **completed**: The problem, allergy or medical state has been resolved and the concern no longer needs to be tracked except for historical purposes.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (Concern Date) (CONF:9030, R2.1=CONF:1198-9030)

The effectiveTime element records the starting and ending times during which the concern was active on the Problem List.

8. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:15980)

- a. Contains **@typeCode**="SUBJ" *SUBJ*
- b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

9. effectiveTime **SHALL** contain exactly one [1..1] low (CONF:9032)

10. effectiveTime **SHOULD** contain zero or one [0..1] high (CONF:9033)

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9024, R2.1=CONF:1198-9024)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9025, R2.1=CONF:1198-9025)
3. **SHALL** contain at least one [1..*] **id** (CONF:9026, R2.1=CONF:1198-9026)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9027)/**@code**="CONC" *Concern* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9440)
5. **SHALL** contain exactly one [1..1] **statusCode** (Concern Status), which **SHALL** be selected from ValueSet ProblemActStatusCode 2.16.840.1.113883.11.20.9.19 **STATIC** 2011-09-09 (CONF:9029)

The statusCode associated with any concern must be one of the following values: **active**: A concern that is still being tracked. **suspended**: A concern that is active, but which may be set aside. For example, this value might be used to suspend concern about a patient problem after some period of remission, but before assumption that the concern has been resolved. **aborted**: A concern that is no longer actively being tracked, but for reasons other than because the problem was resolved. This value might be used to mark a concern as being aborted after a patient leaves care against medical advice. **completed**: The problem, allergy or medical state has been resolved and the concern no longer needs to be tracked except for historical purposes.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (Concern Date) (CONF:9030, R2.1=CONF:1198-9030)

The effectiveTime element records the starting and ending times during which the concern was active on the Problem List.

7. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:15980)

- a. Contains **@typeCode**="SUBJ" *SUBJ*
- b. Conforms to [Problem Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.4)

8. effectiveTime **SHALL** contain exactly one [1..1] low (CONF:9032)

9. effectiveTime **SHOULD** contain zero or one [0..1] high (CONF:9033)

Problem Concern example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.3"/>
  <id root="MDHT" extension="1188598077"/>
```

```

<code code="CONC" codeSystem="2.16.840.1.113883.5.6"
codeSystemName="HL7ActClass" displayName="Concern"/>
<text>Text Value</text>
<effectiveTime>
  <low value="2019"/>
  <high value="2019"/>
</effectiveTime>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
    <id root="MDHT" extension="2024717630"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
    <id root="MDHT" extension="2130655803"/>
    <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
    <id root="MDHT" extension="1911073647"/>
    <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.6"/>
    <id root="MDHT" extension="970334154"/>
    <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

Problem Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.4]

A problem is a clinical statement that a clinician has noted. In health care it is a condition that requires monitoring or diagnostic, therapeutic, or educational action. It also refers to any unmet or partially met basic human need. A Problem Observation is required to be wrapped in an act wrapper in locations such as the Problem Section, Allergies Section, and Hospital Discharge Diagnosis Section, where the type of problem needs to be identified or the condition tracked. A Problem Observation can be a valid "standalone" template instance in cases where a simple problem observation is to be sent. The negationInd attribute, if true, specifies that the problem indicated was observed to not have occurred (which is subtly but importantly different from having not been observed). NegationInd='true' is an acceptable way to make a clinical assertion that something did not occur, for example, "no diabetes".

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:14926, CONF:14927) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9041, R2.1=CONF:1198-9041)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9042, R2.1=CONF:1198-9042)
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:10139)

Use negationInd="true" to indicate that the problem was not observed (CONF:16880)
5. **SHALL** contain at least one [1..*] **id** (CONF:9043, R2.1=CONF:1198-9043)
6. **SHALL** contain exactly one [1..1] **code** (Problem Type), which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:9045)
7. **SHOULD** contain zero or one [0..1] **text** (Problem Name) (CONF:9185)
8. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:9049, R2.1=CONF:1198-9049)
9. **SHOULD** contain zero or one [0..1] **effectiveTime** (Problem Date) (CONF:9050)
10. **SHALL** contain exactly one [1..1] **value** (Problem Code) with **@xsi:type**="CD", which **SHOULD** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:9058)
11. **MAY** contain [0..1] **entryRelationship** (Age At Onset) such that it (CONF:9059, CONF:9060, CONF:15590, R2.1=CONF:1198-9059, R2.1=CONF:1198-9060, R2.1=CONF:1198-15590)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Age Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.31)
12. **MAY** contain [0..1] **entryRelationship** (Problem Status) such that it (CONF:9063, CONF:9068, CONF:15591, DSTU:793)
 - a. Contains **@typeCode**="REFR" *REFR*
 - b. Conforms to [Problem Status](#) (templateId: 2.16.840.1.113883.10.20.22.4.6)
13. **MAY** contain [0..1] **entryRelationship** (Health Status) such that it (CONF:9067, CONF:9064, CONF:15592)
 - a. Contains **@typeCode**="REFR" *REFR*
 - b. Conforms to [Health Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.5)
14. The text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15587)
15. reference, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:15588)
16. 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:15589)
17. The effectiveTime element, if present, **SHALL** contain exactly one [1..1] low (CONF:15603)
18. effectiveTime, if present, **MAY** contain zero or one [0..1] high (CONF:15604)
19. value **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:10141)

20. If the diagnosis is unknown or the SNOMED code is unknown, @nullFlavor **SHOULD** be UNK. If the code is something other than SNOMED, @nullFlavor **SHOULD** be OTH and the other code **SHOULD** be placed in the translation element (CONF:10142)
 21. entryRelationship with target entry Age Observation **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:9069, R2.1=CONF:9069)
 22. value **MAY** contain zero or more [0..*] translation (CONF:16749, R2.1=CONF:1198-16749)
 23. translation, if present, **MAY** contain zero or one [0..1] @code (CodeSystem: ICD10CM 2.16.840.1.113883.6.90 STATIC) (CONF:16750, R2.1=CONF:1198-16750)
1. **SHALL** contain exactly one [1..1] @classCode="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9041, R2.1=CONF:1198-9041)
 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9042, R2.1=CONF:1198-9042)
 3. **MAY** contain zero or one [0..1] @negationInd (CONF:10139)
Use negationInd="true" to indicate that the problem was not observed (CONF:16880)
 4. **SHALL** contain at least one [1..*] id (CONF:9043, R2.1=CONF:1198-9043)
 5. **SHALL** contain exactly one [1..1] code (Problem Type), which **SHOULD** be selected from ValueSet Problem Type 2.16.840.1.113883.3.88.12.3221.7.2 **STATIC** 2008-12-18 (CONF:9045)
 6. **SHOULD** contain zero or one [0..1] text (Problem Name) (CONF:9185)
 7. **SHALL** contain exactly one [1..1] statusCode/@code="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:9049, R2.1=CONF:1198-9049)
 8. **SHOULD** contain zero or one [0..1] effectiveTime (Problem Date) (CONF:9050)
 9. **SHALL** contain exactly one [1..1] value (Problem Code) with @xsi:type="CD", which **SHOULD** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:9058)
 10. **MAY** contain [0..1] entryRelationship (Age At Onset) such that it (CONF:9059, CONF:9060, CONF:15590, R2.1=CONF:1198-9059, R2.1=CONF:1198-9060, R2.1=CONF:1198-15590)
 - a. Contains @typeCode="SUBJ" *SUBJ*
 - b. Conforms to [Age Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.31)
 11. **MAY** contain [0..1] entryRelationship (Problem Status) such that it (CONF:9063, CONF:9068, CONF:15591, DSTU:793)
 - a. Contains @typeCode="REFR" *REFR*
 - b. Conforms to [Problem Status](#) (templateId: 2.16.840.1.113883.10.20.22.4.6)
 12. **MAY** contain [0..1] entryRelationship (Health Status) such that it (CONF:9067, CONF:9064, CONF:15592)
 - a. Contains @typeCode="REFR" *REFR*
 - b. Conforms to [Health Status Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.5)
 13. The text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15587)
 14. reference, if present, **SHALL** contain exactly one [1..1] @value (CONF:15588)
 15. 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:15589)
 16. The effectiveTime element, if present, **SHALL** contain exactly one [1..1] low (CONF:15603)
 17. effectiveTime, if present, **MAY** contain zero or one [0..1] high (CONF:15604)
 18. value **MAY** contain zero or one [0..1] @nullFlavor (CONF:10141)
 19. If the diagnosis is unknown or the SNOMED code is unknown, @nullFlavor **SHOULD** be UNK. If the code is something other than SNOMED, @nullFlavor **SHOULD** be OTH and the other code **SHOULD** be placed in the translation element (CONF:10142)
 20. entryRelationship with target entry Age Observation **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:9069, R2.1=CONF:9069)
 21. value **MAY** contain zero or more [0..*] translation (CONF:16749, R2.1=CONF:1198-16749)

22. translation, if present, **MAY** contain zero or one [0..1] @code (CodeSystem: ICD10CM 2.16.840.1.113883.6.90 STATIC) (CONF:16750, R2.1=CONF:1198-16750)

Problem Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <id root="MDHT" extension="588931380"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="107098020"/>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.31"/>
      <id root="MDHT" extension="252982444"/>
      <code code="445518008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Age At Onset"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="PQ"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.5"/>
      <id root="MDHT" extension="291901414"/>
      <code code="11323-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Health status"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="67219638"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.6"/>
      <id root="MDHT" extension="620589756"/>
      <code code="33999-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Status"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="402226595"/>
    </observation>
  </entryRelationship>
</entryRelationship>
```

```
</observation>
```

Problem Status

[Observation: templateId 2.16.840.1.113883.10.20.22.4.6]

The Problem Status records whether the indicated problem is active, inactive, or resolved.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7359, DSTU:793) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.6"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7357, R2.1=CONF:1098-7357, DSTU:815/1357)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7358, R2.1=CONF:1098-7538, DSTU:815/1357)
4. **SHALL** contain exactly one [1..1] **code/@code**="33999-4" *Status* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7361, R2.1=CONF:1098-19162, CONF:1098-19163, DSTU:815/1357)
5. **SHOULD** contain zero or one [0..1] **text** (CONF:7362, R2.1=CONF:1098-7362, DSTU:815/1357)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7364, R2.1=CONF:1098-7364, CONF:1098-19113, DSTU:815/1357)
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet HITSP Problem Status 2.16.840.1.113883.3.88.12.80.68 **STATIC** (CONF:7365)
8. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15593, R2.1=CONF:1098-15593, DSTU:815/1357)
9. reference, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:15594, R2.1=CONF:1098-15594, DSTU:815/1357)
10. 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:15595, R2.1=CONF:1098-15595, DSTU:815/1357)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7357, R2.1=CONF:1098-7357, DSTU:815/1357)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7358, R2.1=CONF:1098-7538, DSTU:815/1357)
3. **SHALL** contain exactly one [1..1] **code/@code**="33999-4" *Status* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:7361, R2.1=CONF:1098-19162, CONF:1098-19163, DSTU:815/1357)
4. **SHOULD** contain zero or one [0..1] **text** (CONF:7362, R2.1=CONF:1098-7362, DSTU:815/1357)
5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7364, R2.1=CONF:1098-7364, CONF:1098-19113, DSTU:815/1357)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet HITSP Problem Status 2.16.840.1.113883.3.88.12.80.68 **STATIC** (CONF:7365)
7. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15593, R2.1=CONF:1098-15593, DSTU:815/1357)
8. reference, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:15594, R2.1=CONF:1098-15594, DSTU:815/1357)
9. 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:15595, R2.1=CONF:1098-15595, DSTU:815/1357)

Problem Status example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <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>Text Value</text>
<statusCode code="completed"/>
</observation>

```

Procedure Activity Act

[Act: templateId 2.16.840.1.113883.10.20.22.4.12]

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 clinical statement represents any procedure that cannot be classified as an observation or a procedure according to the HL7 RIM. Examples of these procedures are a dressing change, teaching or feeding a patient or providing comfort measures.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10519) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.12"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8289, R2.0=CONF:1098-8289)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet *MoodCodeEvnInt* 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:8290)
4. **SHALL** contain at least one [1..*] **id** (CONF:8292, R2.0=CONF:1098-8292)
5. **SHALL** contain exactly one [1..1] **code** (CONF:8293, R2.0=CONF:1098-8293)
6. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet *ProcedureActStatusCode* 2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:8298)
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8299)
8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet *Act Priority* 2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:8300, R2.0=CONF:1098-8300)
9. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8301)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8302)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8303, R2.0=CONF:1098-8303)
 2. **SHALL** contain exactly one [1..1] **addr** (CONF:8304, R2.0=CONF:1098-8304)
 3. **SHALL** contain exactly one [1..1] **telecom** (CONF:8305)
 4. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8306)
 - a. **SHOULD** contain zero or more [0..*] **id** (CONF:8307, R2.0=CONF:1098-8307)
 - b. **MAY** contain zero or more [0..*] **name** (CONF:8308, R2.0=CONF:1098-8308)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:8310)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:8309)
10. **MAY** contain [0..*] **participant** such that it (CONF:8311, CONF:15599, R2.0=CONF:1098-8311, R2.0=CONF:1098-15599)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
11. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8322, CONF:8323, CONF:15600)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
12. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8326, CONF:8327, CONF:15601)
 - a. Contains **@typeCode**="RSON" *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)

13. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8329, CONF:8330, CONF:15602)
 - a. Contains **@typeCode="COMP"** *COMP*
 - b. Conforms to **Medication Activity** (templateId: 2.16.840.1.113883.10.20.22.4.16)
14. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:8314, R2.0=CONF:1098-8314)
 - a. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8316, R2.0=CONF:1098-8316)
 - b. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:8315, R2.0=CONF:1098-8315)
 - c. **SHALL** contain exactly one [1..1] **encounter** such that it (CONF:8317, R2.0=CONF:1098-8317)
 1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8318, R2.0=CONF:1098-8318)
 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8319, R2.0=CONF:1098-8319)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:8320, R2.0=CONF:1098-8320)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16849, R2.0=CONF:1098-16849)
15. **code** **SHOULD** contain zero or one [0..1] **originalText** (CONF:15596, R2.0=CONF:1098-19186)
16. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:15596, R2.0=CONF:1098-19187)
17. **reference**, if present, **MAY** contain zero or one [0..1] **@value** (CONF:15597, R2.0=CONF:1098-19188)
18. **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:15598, R2.0=CONF:1098-19189)
19. **@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) (CONF:19190, R2.0=CONF:1098-19190)
20. participant with target class Service Delivery Location **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) **STATIC** (CONF:8312, R2.0=CONF:1098-8312, DSTU:1239)
21. **entryRelationship** with target class encounter **SHALL** contain exactly one [1..1] **@inversionInd="true"** **true** (CONF:8316, R2.0=CONF:1098-8316)
22. **entryRelationship** with target class Instructions **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8324)
1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8289, R2.0=CONF:1098-8289)
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet *MoodCodeEvnInt* 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:8290)
3. **SHALL** contain at least one [1..*] **id** (CONF:8292, R2.0=CONF:1098-8292)
4. **SHALL** contain exactly one [1..1] **code** (CONF:8293, R2.0=CONF:1098-8293)
5. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet *ProcedureActStatusCode* 2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:8298)
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8299)
7. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet *Act Priority* 2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:8300, R2.0=CONF:1098-8300)
8. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8301)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8302)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8303, R2.0=CONF:1098-8303)
 2. **SHALL** contain exactly one [1..1] **addr** (CONF:8304, R2.0=CONF:1098-8304)
 3. **SHALL** contain exactly one [1..1] **telecom** (CONF:8305)
 4. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8306)
 - a. **SHOULD** contain zero or more [0..*] **id** (CONF:8307, R2.0=CONF:1098-8307)
 - b. **MAY** contain zero or more [0..*] **name** (CONF:8308, R2.0=CONF:1098-8308)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:8310)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:8309)

9. **MAY** contain [0..*] **participant** such that it (CONF:8311, CONF:15599, R2.0=CONF:1098-8311, R2.0=CONF:1098-15599)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
10. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8322, CONF:8323, CONF:15600)
 - a. Contains @typeCode="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
11. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8326, CONF:8327, CONF:15601)
 - a. Contains @typeCode="RSON" *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
12. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8329, CONF:8330, CONF:15602)
 - a. Contains @typeCode="COMP" *COMP*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
13. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:8314, R2.0=CONF:1098-8314)
 - a. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:8316, R2.0=CONF:1098-8316)
 - b. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:8315, R2.0=CONF:1098-8315)
 - c. **SHALL** contain exactly one [1..1] **encounter** such that it (CONF:8317, R2.0=CONF:1098-8317)
 1. **SHALL** contain exactly one [1..1] @classCode="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8318, R2.0=CONF:1098-8318)
 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8319, R2.0=CONF:1098-8319)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:8320, R2.0=CONF:1098-8320)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16849, R2.0=CONF:1098-16849)
14. code **SHOULD** contain zero or one [0..1] originalText (CONF:15596, R2.0=CONF:1098-19186)
15. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15596, R2.0=CONF:1098-19187)
16. reference, if present, **MAY** contain zero or one [0..1] @value (CONF:15597, R2.0=CONF:1098-19188)
17. 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:15598, R2.0=CONF:1098-19189)
18. @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) (CONF:19190, R2.0=CONF:1098-19190)
19. participant with target class Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) STATIC (CONF:8312, R2.0=CONF:1098-8312, DSTU:1239)
20. entryRelationship with target class encounter **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:8316, R2.0=CONF:1098-8316)
21. entryRelationship with target class Instructions **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:8324)

Procedure Activity Act example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT">
  <templateId root="2.16.840.1.113883.10.20.22.4.12"/>
  <id root="MDHT" extension="228106295"/>
  <code code="881578890"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
  <performer>
```

```

    <assignedEntity>
      <id root="MDHT" extension="803937836"/>
      <addr/>
      <telecom/>
      <representedOrganization/>
    </assignedEntity>
  </performer>
  <entryRelationship typeCode="COMP" inversionInd="true">
    <encounter classCode="ENC" moodCode="EVN">
      <id root="MDHT" extension="1341542849"/>
      <text>Text Value</text>
    </encounter>
  </entryRelationship>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <id root="MDHT" extension="8015675"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <priorityCode code="496363207"/>
    </act>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <id root="MDHT" extension="1333553245"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <priorityCode code="1441008038"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <id root="MDHT" extension="522592911"/>
      <code code="2065911208"/>
      <text>Text Value</text>
      <effectiveTime value="20190227"/>
      <priorityCode code="1739817330"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
        </manufacturedProduct>
      </consumable>
    </entryRelationship>
  </performer>

```

```

<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="851919366"/>
    <code code="2088862675"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <priorityCode code="2010600558"/>
    <author/>
  </entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <id root="MDHT" extension="1242609435"/>
    <code code="1794185672"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <priorityCode code="1178068319"/>
  </entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
    <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
    <statusCode code="completed"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  </procedure>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
  </substanceAdministration>
</entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">

```

```

        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <id root="MDHT" extension="1398769639"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <priorityCode code="962622938"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <id root="MDHT" extension="429806062"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <priorityCode code="409239606"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <id root="MDHT" extension="158937496"/>
        <code code="1840952007"/>
        <text>Text Value</text>
        <effectiveTime value="20190227"/>
        <priorityCode code="1451367804"/>
        <performer/>
        <entryRelationship>
          <supply classCode="SPLY" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          </supply>
        </entryRelationship>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN">
      <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
      </criterion>
    </precondition>
  </substanceAdministration>
</entryRelationship>
</act>

```

Procedure Activity Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.13]

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 clinical statement 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10520) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.13"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8282, R2.0=CONF:1098-8282)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet *MoodCodeEvnInt* 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:8237)
4. **SHALL** contain at least one [1..*] **id** (CONF:8239, R2.0=CONF:1098-8239)
5. **SHALL** contain exactly one [1..1] **code** (CONF:8240, R2.0=CONF:1098-19197)
6. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet *ProcedureActStatusCode* 2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:8245)
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8246, R2.0=CONF:1098-8246)
8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet *Act Priority* 2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:8247, R2.0=CONF:1098-8247)
9. **SHALL** contain exactly one [1..1] **value** (CONF:16846)
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:8248, R2.0=CONF:1098-8248)
11. **SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:8250), which **SHALL** be selected from ValueSet *Body Site* 2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:10121)
12. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8251)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8252)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8253, R2.0=CONF:1098-8253)
 2. **SHALL** contain exactly one [1..1] **addr** (CONF:8254)
 3. **SHALL** contain exactly one [1..1] **telecom** (CONF:8255)
 4. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8256, R2.0=CONF:1098-8256)
 - a. **SHOULD** contain zero or more [0..*] **id** (CONF:8257, R2.0=CONF:1098-8257)
 - b. **MAY** contain zero or more [0..*] **name** (CONF:8258, R2.0=CONF:1098-8258)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:8260, R2.0=CONF:1098-8260)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:8259, R2.0=CONF:1098-8259)
13. **MAY** contain [0..*] **participant** such that it (CONF:8261, CONF:15904, R2.0=CONF:1098-8261, R2.0=CONF:1098-15904)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
14. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8272, CONF:8273, CONF:15905)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
15. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8276, CONF:8277, CONF:15906)
 - a. Contains **@typeCode**="RSON" *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
16. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8279, CONF:8280, CONF:15907)
 - a. Contains **@typeCode**="COMP" *COMP*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

17. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:8264, R2.0=CONF:1098-8264)
- SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8266, R2.0=CONF:1098-8266)
 - SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:8265, R2.0=CONF:1098-8265)
 - SHALL** contain exactly one [1..1] **encounter** such that it (CONF:8267, R2.0=CONF:1098-8267)
 - SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8268, R2.0=CONF:1098-8268)
 - SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8269, R2.0=CONF:1098-8269)
 - SHALL** contain exactly one [1..1] **id** (CONF:8270, R2.0=CONF:1098-8270)
 - MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16847, R2.0=CONF:1098-16847)
18. **@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), ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) (CONF:19202)
19. **code** **SHOULD** contain zero or one [0..1] **originalText** (CONF:8242, R2.0=CONF:1098-19198)
20. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:15901, R2.0=CONF:1098-19199)
21. **reference**, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15902, R2.0=CONF:1098-19200)
22. **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:15903, R2.0=CONF:1098-19201)
23. **methodCode** **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:8249, R2.0=CONF:1098-8249)
24. **entryRelationship** with target class encounter **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8266, R2.0=CONF:1098-8266)
25. **participant** with target class Service Delivery Location **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) STATIC (CONF:8262, R2.0=CONF:1098-8262, DSTU:1239)
26. **entryRelationship** with target class Instructions **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8274)
- SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8282, R2.0=CONF:1098-8282)
 - SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet *MoodCodeEvnInt* 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:8237)
 - SHALL** contain at least one [1..*] **id** (CONF:8239, R2.0=CONF:1098-8239)
 - SHALL** contain exactly one [1..1] **code** (CONF:8240, R2.0=CONF:1098-19197)
 - SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet *ProcedureActStatusCode* 2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:8245)
 - SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:8246, R2.0=CONF:1098-8246)
 - MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet *Act Priority* 2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:8247, R2.0=CONF:1098-8247)
 - SHALL** contain exactly one [1..1] **value** (CONF:16846)
 - MAY** contain zero or one [0..1] **methodCode** (CONF:8248, R2.0=CONF:1098-8248)
 - SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:8250), which **SHALL** be selected from ValueSet *Body Site* 2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:10121)

11. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:8251)
 - a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:8252)
 1. **SHALL** contain at least one [1..*] **id** (CONF:8253, R2.0=CONF:1098-8253)
 2. **SHALL** contain exactly one [1..1] **addr** (CONF:8254)
 3. **SHALL** contain exactly one [1..1] **telecom** (CONF:8255)
 4. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:8256, R2.0=CONF:1098-8256)
 - a. **SHOULD** contain zero or more [0..*] **id** (CONF:8257, R2.0=CONF:1098-8257)
 - b. **MAY** contain zero or more [0..*] **name** (CONF:8258, R2.0=CONF:1098-8258)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:8260, R2.0=CONF:1098-8260)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:8259, R2.0=CONF:1098-8259)
12. **MAY** contain [0..*] **participant** such that it (CONF:8261, CONF:15904, R2.0=CONF:1098-8261, R2.0=CONF:1098-15904)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
13. **MAY** contain [0..1] **entryRelationship** such that it (CONF:8272, CONF:8273, CONF:15905)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
14. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8276, CONF:8277, CONF:15906)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
15. **MAY** contain [0..*] **entryRelationship** such that it (CONF:8279, CONF:8280, CONF:15907)
 - a. Contains **@typeCode="COMP"** *COMP*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
16. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:8264, R2.0=CONF:1098-8264)
 - a. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8266, R2.0=CONF:1098-8266)
 - b. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:8265, R2.0=CONF:1098-8265)
 - c. **SHALL** contain exactly one [1..1] **encounter** such that it (CONF:8267, R2.0=CONF:1098-8267)
 1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8268, R2.0=CONF:1098-8268)
 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8269, R2.0=CONF:1098-8269)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:8270, R2.0=CONF:1098-8270)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16847, R2.0=CONF:1098-16847)
17. **@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), ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) (CONF:19202)
18. **code** **SHOULD** contain zero or one [0..1] **originalText** (CONF:8242, R2.0=CONF:1098-19198)
19. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:15901, R2.0=CONF:1098-19199)
20. **reference**, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15902, R2.0=CONF:1098-19200)
21. **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:15903, R2.0=CONF:1098-19201)
22. **methodCode** **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:8249, R2.0=CONF:1098-8249)
23. **entryRelationship** with target class encounter **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8266, R2.0=CONF:1098-8266)

24. participant with target class Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) STATIC (CONF:8262, R2.0=CONF:1098-8262, DSTU:1239)
25. entryRelationship with target class Instructions **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:8274)

Procedure Activity Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="urn:hl7-org:v3" classCode="OBS">
  <templateId root="2.16.840.1.113883.10.20.22.4.13"/>
  <id root="MDHT" extension="744876245"/>
  <code code="942663760"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
  <methodCode code="1613568098"/>
  <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <performer>
    <assignedEntity>
      <id root="MDHT" extension="615642398"/>
      <addr/>
      <telecom/>
      <representedOrganization/>
    </assignedEntity>
  </performer>
  <entryRelationship typeCode="COMP" inversionInd="true">
    <encounter classCode="ENC" moodCode="EVN">
      <id root="MDHT" extension="2065091062"/>
      <text>Text Value</text>
    </encounter>
  </entryRelationship>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <id root="MDHT" extension="259434192"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <priorityCode code="586355947"/>
    </act>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <id root="MDHT" extension="1301870305"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
</observation>
```

```

    <priorityCode code="2109808875"/>
    <value xsi:type="CD" code="1399300931"/>
    <methodCode code="999455146"/>
    <targetSiteCode code="1650229390"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <id root="MDHT" extension="748735672"/>
    <code code="1918101589"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <priorityCode code="126840785"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable>
      <manufacturedProduct classCode="MANU">
        <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      </manufacturedProduct>
    </consumable>
    <performer/>
  </entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="1766371775"/>
    <code code="532436621"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <priorityCode code="248042361"/>
    <author/>
  </entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <statusCode code="completed"/>
  </act>
</entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <id root="MDHT" extension="995067728"/>
    <code code="1433582116"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <priorityCode code="1199742796"/>
    <value xsi:type="CD" code="502948148"/>
    <methodCode code="51814393"/>
    <targetSiteCode code="456831100"/>
  </observation>
</entryRelationship>

```

```

    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
        <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <procedure classCode="PROC">
        <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
        <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
        <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      </procedure>
    </entryRelationship>
    <entryRelationship>
      <substanceAdministration classCode="SBADM">
        <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
        <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
        <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
      </substanceAdministration>
    </entryRelationship>
  </observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="752870964"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <priorityCode code="2019610616"/>
  </act>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <id root="MDHT" extension="807021948"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <priorityCode code="579600092"/>
    <value xsi:type="CD" code="1563041504"/>
    <methodCode code="2074457608"/>
    <targetSiteCode code="1231580180"/>
  </observation>
</entryRelationship>
</entryRelationship>

```

```

    <supply classCode="SPLY" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      <id root="MDHT" extension="596589880"/>
      <code code="1997246926"/>
      <text>Text Value</text>
      <effectiveTime value="20190227"/>
      <priorityCode code="1452246295"/>
      <performer/>
      <entryRelationship>
        <supply classCode="SPLY" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          </supply>
        </entryRelationship>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN">
      <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
      </criterion>
    </precondition>
  </substanceAdministration>
</entryRelationship>
</observation>

```

Procedure Activity Procedure

[Procedure: templateId 2.16.840.1.113883.10.20.22.4.14]

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 clinical statement 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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7654) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14"
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7652, R2.0=CONF:1098-7652)
3. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet MoodCodeEvnInt 2.16.840.1.113883.11.20.9.18 **STATIC** 2014-09-01 (CONF:7653)
4. **SHALL** contain at least one [1..*] **id** (CONF:7655, R2.0=CONF:1098-7655)
5. **SHALL** contain exactly one [1..1] **code** (CONF:7656, R2.0=CONF:1098-7656)
6. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet ProcedureActStatusCode 2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:7661)
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7662, R2.0=CONF:1098-7662)
8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet Act Priority 2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:7668, R2.0=CONF:1098-7668)
9. **MAY** contain zero or one [0..1] **methodCode** (CONF:7670, R2.0=CONF:1098-7670)
10. **SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:7683), which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:16082)

11. **MAY** contain zero or more [0..*] **specimen** such that it (CONF:7697)

This specimen is for representing specimens obtained from a procedure.

- a. **SHALL** contain exactly one [1..1] **specimenRole** (CONF:7704, R2.0=CONF:1098-7704)
- b. **specimenRole** **SHOULD** contain zero or more [0..*] **id** (CONF:7716, R2.0=CONF:1098-7716)
- c. 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:7717)

12. **MAY** contain [0..*] **participant** such that it (CONF:7765, CONF:15912, R2.0=CONF:1098-7765, R2.0=CONF:1098-15912)

- a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)

13. **SHOULD** contain zero or more [0..*] **performer** such that it (CONF:7718)

- a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:7720)
 - 1. **SHALL** contain at least one [1..*] **id** (CONF:7722, R2.0=CONF:1098-7722)
 - 2. **SHALL** contain exactly one [1..1] **addr** (CONF:7731)
 - 3. **SHALL** contain exactly one [1..1] **telecom** (CONF:7732)
 - 4. **SHOULD** contain zero or one [0..1] **representedOrganization** such that it (CONF:7733, R2.0=CONF:1098-7733)
 - a. **SHOULD** contain zero or more [0..*] **id** (CONF:7734, R2.0=CONF:1098-7734)
 - b. **MAY** contain zero or more [0..*] **name** (CONF:7735, R2.0=CONF:1098-7735)
 - c. **SHALL** contain exactly one [1..1] **telecom** (CONF:7737, R2.0=CONF:1098-7737)
 - d. **SHALL** contain exactly one [1..1] **addr** (CONF:7736, R2.0=CONF:1098-7736)

14. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7886, CONF:7887, CONF:15915)

- a. Contains **@typeCode="COMP"** *COMP*
- b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)

15. **MAY** contain [0..1] **entryRelationship** such that it (CONF:7775, CONF:7776, CONF:15913)

- a. Contains **@typeCode="SUBJ"** *SUBJ*
- b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)

16. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7779, CONF:7780, CONF:15914)

- a. Contains **@typeCode="RSON"** *RSON*
- b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)

17. **MAY** contain [0..*] **participant** such that it (CONF:7751, CONF:15911, R2.0=CONF:1098-7751, R2.0=CONF:1098-15911)

- a. Conforms to [Product Instance](#) (templateId: 2.16.840.1.113883.10.20.22.4.37)

18. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:7768, R2.0=CONF:1098-7768)

- a. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:8009, R2.0=CONF:1098-8009)
- b. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:7769, R2.0=CONF:1098-7769)
- c. **SHALL** contain exactly one [1..1] **encounter** such that it (CONF:7770, R2.0=CONF:1098-7770)
 - 1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7771, R2.0=CONF:1098-7771)
 - 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7772, R2.0=CONF:1098-7772)
 - 3. **SHALL** contain exactly one [1..1] **id** (CONF:7773, R2.0=CONF:1098-7773)
 - 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16843, R2.0=CONF:1098-16843)

19. code in a procedure activity **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:19207)

20. code **SHOULD** contain zero or one [0..1] **originalText** (CONF:7658, R2.0=CONF:1098-19203)

21. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15908, R2.0=CONF:1098-19204)
22. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15909, R2.0=CONF:1098-19205)
23. 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:15910, R2.0=CONF:1098-19206)
24. methodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:7890, R2.0=CONF:1098-7890)
25. entryRelationship with target entry encounter **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:8009, R2.0=CONF:1098-8009)
26. participant with target entry Product Instance **SHALL** contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) STATIC (CONF:7752, R2.0=CONF:1098-7752)
27. participant with target entry Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) STATIC (CONF:7766)
28. entryRelationship with target entry Instructions **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:7777)
1. **SHALL** contain exactly one [1..1] @classCode="PROC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7652, R2.0=CONF:1098-7652)
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet MoodCodeEvnInt 2.16.840.1.113883.11.20.9.18 STATIC 2014-09-01 (CONF:7653)
3. **SHALL** contain at least one [1..*] id (CONF:7655, R2.0=CONF:1098-7655)
4. **SHALL** contain exactly one [1..1] code (CONF:7656, R2.0=CONF:1098-7656)
5. **SHALL** contain exactly one [1..1] statusCode, which **SHALL** be selected from ValueSet ProcedureActStatusCode 2.16.840.1.113883.11.20.9.22 DYNAMIC (CONF:7661)
6. **SHOULD** contain zero or one [0..1] effectiveTime (CONF:7662, R2.0=CONF:1098-7662)
7. **MAY** contain zero or one [0..1] priorityCode, which **SHALL** be selected from ValueSet Act Priority 2.16.840.1.113883.1.11.16866 DYNAMIC (CONF:7668, R2.0=CONF:1098-7668)
8. **MAY** contain zero or one [0..1] methodCode (CONF:7670, R2.0=CONF:1098-7670)
9. **SHOULD** contain zero or more [0..*] targetSiteCode (CONF:7683), which **SHALL** be selected from ValueSet Body Site 2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:16082)
10. **MAY** contain zero or more [0..*] specimen such that it (CONF:7697)

This specimen is for representing specimens obtained from a procedure.

- a. **SHALL** contain exactly one [1..1] specimenRole (CONF:7704, R2.0=CONF:1098-7704)
- b. specimenRole **SHOULD** contain zero or more [0..*] id (CONF:7716, R2.0=CONF:1098-7716)
- c. 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:7717)
11. **MAY** contain [0..*] participant such that it (CONF:7765, CONF:15912, R2.0=CONF:1098-7765, R2.0=CONF:1098-15912)
 - a. Conforms to [Service Delivery Location](#) (templateId: 2.16.840.1.113883.10.20.22.4.32)
12. **SHOULD** contain zero or more [0..*] performer such that it (CONF:7718)
 - a. **SHALL** contain exactly one [1..1] assignedEntity such that it (CONF:7720)
 1. **SHALL** contain at least one [1..*] id (CONF:7722, R2.0=CONF:1098-7722)
 2. **SHALL** contain exactly one [1..1] addr (CONF:7731)
 3. **SHALL** contain exactly one [1..1] telecom (CONF:7732)
 4. **SHOULD** contain zero or one [0..1] representedOrganization such that it (CONF:7733, R2.0=CONF:1098-7733)
 - a. **SHOULD** contain zero or more [0..*] id (CONF:7734, R2.0=CONF:1098-7734)
 - b. **MAY** contain zero or more [0..*] name (CONF:7735, R2.0=CONF:1098-7735)
 - c. **SHALL** contain exactly one [1..1] telecom (CONF:7737, R2.0=CONF:1098-7737)
 - d. **SHALL** contain exactly one [1..1] addr (CONF:7736, R2.0=CONF:1098-7736)

13. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7886, CONF:7887, CONF:15915)
 - a. Contains @**typeCode**="COMP" *COMP*
 - b. Conforms to [Medication Activity](#) (templateId: 2.16.840.1.113883.10.20.22.4.16)
14. **MAY** contain [0..1] **entryRelationship** such that it (CONF:7775, CONF:7776, CONF:15913)
 - a. Contains @**typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [Instructions](#) (templateId: 2.16.840.1.113883.10.20.22.4.20)
15. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7779, CONF:7780, CONF:15914)
 - a. Contains @**typeCode**="RSON" *RSON*
 - b. Conforms to [Indication](#) (templateId: 2.16.840.1.113883.10.20.22.4.19)
16. **MAY** contain [0..*] **participant** such that it (CONF:7751, CONF:15911, R2.0=CONF:1098-7751, R2.0=CONF:1098-15911)
 - a. Conforms to [Product Instance](#) (templateId: 2.16.840.1.113883.10.20.22.4.37)
17. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:7768, R2.0=CONF:1098-7768)
 - a. **SHALL** contain exactly one [1..1] @**inversionInd**="true" (CONF:8009, R2.0=CONF:1098-8009)
 - b. **SHALL** contain exactly one [1..1] @**typeCode**="COMP" (CONF:7769, R2.0=CONF:1098-7769)
 - c. **SHALL** contain exactly one [1..1] **encounter** such that it (CONF:7770, R2.0=CONF:1098-7770)
 1. **SHALL** contain exactly one [1..1] @**classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7771, R2.0=CONF:1098-7771)
 2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7772, R2.0=CONF:1098-7772)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:7773, R2.0=CONF:1098-7773)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16843, R2.0=CONF:1098-16843)
18. code in a procedure activity **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:19207)
19. code **SHOULD** contain zero or one [0..1] **originalText** (CONF:7658, R2.0=CONF:1098-19203)
20. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:15908, R2.0=CONF:1098-19204)
21. **reference**, if present, **SHOULD** contain zero or one [0..1] @**value** (CONF:15909, R2.0=CONF:1098-19205)
22. **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:15910, R2.0=CONF:1098-19206)
23. **methodCode** **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:7890, R2.0=CONF:1098-7890)
24. **entryRelationship** with target entry encounter **SHALL** contain exactly one [1..1] @**inversionInd**="true" (CONF:8009, R2.0=CONF:1098-8009)
25. **participant** with target entry Product Instance **SHALL** contain exactly one [1..1] @**typeCode**="DEV" Device (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) STATIC (CONF:7752, R2.0=CONF:1098-7752)
26. **participant** with target entry Service Delivery Location **SHALL** contain exactly one [1..1] @**typeCode**="LOC" Location (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) STATIC (CONF:7766)
27. **entryRelationship** with target entry Instructions **SHALL** contain exactly one [1..1] @**inversionInd**="true" (CONF:7777)

Procedure Activity Procedure example

```
<procedure xmlns="urn:hl7-org:v3" classCode="PROC">
  <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
  <id root="MDHT" extension="1007240236"/>
  <code code="1521079485"/>
  <text>Text Value</text>
  <effectiveTime>
```

```

    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
  <methodCode code="1634544360"/>
  <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  <specimen>
    <specimenRole/>
  </specimen>
  <performer>
    <assignedEntity>
      <id root="MDHT" extension="772654737"/>
      <addr/>
      <telecom/>
      <representedOrganization/>
    </assignedEntity>
  </performer>
  <entryRelationship typeCode="COMP" inversionInd="true">
    <encounter classCode="ENC" moodCode="EVN">
      <id root="MDHT" extension="1748986489"/>
      <text>Text Value</text>
    </encounter>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <id root="MDHT" extension="671044601"/>
      <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <priorityCode code="37211972"/>
      <methodCode code="1259896635"/>
      <targetSiteCode code="216736444"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <id root="MDHT" extension="166623439"/>
      <code code="559952153"/>
      <text>Text Value</text>
      <effectiveTime value="20190227"/>
      <priorityCode code="70813372"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <consumable>
        <manufacturedProduct classCode="MANU">
          <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
        </manufacturedProduct>
      </consumable>
    </entryRelationship>
  </performer>

```



```

<entryRelationship>
  <supply classCode="SPLY" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    <id root="MDHT" extension="2103295288"/>
    <code code="2087516646"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <priorityCode code="576037849"/>
    <author/>
  </supply>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <statusCode code="completed"/>
    </act>
  </entryRelationship>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <id root="MDHT" extension="354511796"/>
    <code code="349052601"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <priorityCode code="211119128"/>
    <methodCode code="319979046"/>
    <targetSiteCode code="1692330495"/>
  </observation>
</entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <statusCode code="completed"/>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    </procedure>
  </entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</entryRelationship>

```

```

    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <id root="MDHT" extension="590520406"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <priorityCode code="2142963175"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <id root="MDHT" extension="688839862"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <priorityCode code="598863947"/>
        <methodCode code="563695659"/>
        <targetSiteCode code="1732941549"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <id root="MDHT" extension="484330370"/>
        <code code="1124596299"/>
        <text>Text Value</text>
        <effectiveTime value="20190227"/>
        <priorityCode code="1617828668"/>
        <performer/>
        <entryRelationship>
          <supply classCode="SPLY" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          </supply>
        </entryRelationship>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN">
      <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
      </criterion>
    </precondition>
  </substanceAdministration>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1373220747"/>
    <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>

```

```

    <high value="2019"/>
  </effectiveTime>
  <priorityCode code="727681559"/>
</act>
</entryRelationship>
</procedure>

```

Procedure Context

[Act: templateId 2.16.840.1.113883.10.20.6.2.5]

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 minimal invasive imaging services, whereas the Act entry shall be used for diagnostic imaging services.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9200, CONF:10530) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.5"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:Pending)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:Pending)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9201)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9203)
 - a. effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:17173)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:Pending)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:Pending)
3. **SHALL** contain exactly one [1..1] **code** (CONF:9201)
4. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9203)
 - a. effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:17173)
5. effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:17173)

Procedure Context example

```

<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.5"/>
  <code code="2101597650"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
</act>

```

Procedure Encounter

[Encounter: templateId null]

1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7771)

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7772)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:7773)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:7774)
1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7771)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7772)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:7773)
 4. **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:7774)

Procedure Encounter example

```
<?xml version="1.0" encoding="UTF-8"?>
<encounter xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
  classCode="ENC" moodCode="EVN">
  <id root="167950709"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
</encounter>
```

Purpose of Reference Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.9]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9266, CONF:10531) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.9"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9264)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9265)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9267)
5. **SHOULD** contain zero or more [0..*] **value** with **@xsi:type**="CD", which **SHOULD** be selected from ValueSet DICOMPurposeOfReference 2.16.840.1.113883.11.20.9.28 **DYNAMIC** (CONF:9273)

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 will need to be aware of this difference and apply appropriate transformations

6. **code SHOULD** contain zero or one [0..1] **code**="ASSERTION" (CodeSystem: ActCode 2.16.840.1.113883.5.4) (CONF:9268)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9264)

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9265)
3. **SHALL** contain exactly one [1..1] **code** (CONF:9267)
4. **SHOULD** contain zero or more [0..*] **value** with **@xsi:type**="CD", which **SHOULD** be selected from ValueSet DICOMPurposeOfReference 2.16.840.1.113883.11.20.9.28 **DYNAMIC** (CONF:9273)

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 will need to be aware of this difference and apply appropriate transformations

5. code **SHOULD** contain zero or one [0..1] **code**="ASSERTION" (CodeSystem: ActCode 2.16.840.1.113883.5.4) (CONF:9268)

Purposeof Reference Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
  <code code="410799008"/>
  <text>Text Value</text>
</observation>
```

Quantity Measurement Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.14]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9319, CONF:10532) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.14"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9317)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9318)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9320)
 - a. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DIRQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.29 **DYNAMIC** (CONF:9322)
 1. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DICOMQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.30 **DYNAMIC** (CONF:9323)
 - a. **SHOULD** satisfy: 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) (CONF:9330).
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9326)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:9324, CONF:932)

7. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9327, CONF:9328, CONF:9329)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to **SOP Instance Observation** (templateId: 2.16.840.1.113883.10.20.6.2.8)
1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9317)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9318)
3. **SHALL** contain exactly one [1..1] **code** (CONF:9320)
 - a. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DIRQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.29 DYNAMIC (CONF:9322)
 1. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DICOMQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.30 DYNAMIC (CONF:9323)
 - a. **SHOULD** satisfy: 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) (CONF:9330).
4. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9326)
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="PQ"** (CONF:9324, CONF:932)
6. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9327, CONF:9328, CONF:9329)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to **SOP Instance Observation** (templateId: 2.16.840.1.113883.10.20.6.2.8)
7. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DIRQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.29 DYNAMIC (CONF:9322)
8. code **SHOULD** contain zero or one [0..1] code, which **SHALL** be selected from ValueSet DICOMQuantityMeasurementTypeCodes 2.16.840.1.113883.11.20.9.30 DYNAMIC (CONF:9323)
9. **SHOULD** satisfy: 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) (CONF:9330).

Quantity Measurement Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.14"/>
  <code code="1231553956"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="PQ"/>
  <entryRelationship>
    <observation classCode="DGIMG" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
      <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </entryRelationship>
  </entryRelationship>
</observation>
```

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
  <code code="2111586691"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="1166635694"/>
</observation>
</entryRelationship>
<entryRelationship>
  <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <entryRelationship>
      <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"
codeSystemName="DCM" displayName="Frames for Display"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</observation>

```

Reaction Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.9]

This clinical statement represents an undesired symptom, finding, etc., due to an administered or exposed substance. A reaction can be defined with respect to its severity, and can have been treated by one or more interventions.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7323, CONF:10523) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.9"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7325, R2.0=CONF:1098-7325)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7326, R2.0=CONF:1098-7326)
4. **SHALL** contain exactly one [1..1] **id** (CONF:7329)
5. **SHALL** contain exactly one [1..1] **code** (CONF:16851)
6. **SHOULD** contain zero or one [0..1] **text** (Reaction Free Text) (CONF:7330)
7. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7328)
8. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7332, R2.0=CONF:1098-7332)
9. **SHALL** contain exactly one [1..1] **value** (Reaction Coded) with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:7335)

10. **SHOULD** contain [0..1] **entryRelationship** (Severity) such that it (CONF:7580, CONF:7581, CONF:15922)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to **Severity Observation** (templateId: 2.16.840.1.113883.10.20.22.4.8)
 11. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7337, CONF:7338, CONF:15920)
 - a. This procedure activity is intended to contain information about procedures that were performed in response to an allergy reaction (CONF:16853).
 - b. Contains **@typeCode="RSON"** *RSON*
 - c. Conforms to **Procedure Activity Procedure** (templateId: 2.16.840.1.113883.10.20.22.4.14)
 12. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7340, CONF:7341, CONF:15921)
 - a. This medication activity is intended to contain information about medications that were administered in response to an allergy reaction (CONF:16840)
 - b. Contains **@typeCode="RSON"** *RSON*
 - c. Conforms to **Medication Activity** (templateId: 2.16.840.1.113883.10.20.22.4.16)
 13. **SHALL** satisfy: The value set for this code element has not been specified. Implementers are allowed to use any code system, such as SNOMED CT, a locally determined code, or a nullFlavor (CONF:16852)
 14. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15917)
 15. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15918)
 16. 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:15919)
 17. effectiveTime, if present, **SHOULD** contain zero or one [0..1] low (CONF:7333, R2.0=CONF:1098-7333)
 18. effectiveTime, if present, **SHOULD** contain zero or one [0..1] high (CONF:7334, R2.0=CONF:1098-7334)
 19. entryRelationship with target entry Severity Observation **SHALL** contain exactly one [1..1] **@inversionInd="true"** TRUE (CONF:10375)
 20. entryRelationship with target entry ProcedureActivityProcedure **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:7343). (CONF:7343)
 21. entryRelationship with target entry MedicationActivity **SHALL** contain exactly one [1..1] **@inversionInd="true"** True. (CONF:7344)
1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7325, R2.0=CONF:1098-7325)
 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7326, R2.0=CONF:1098-7326)
 3. **SHALL** contain exactly one [1..1] **id** (CONF:7329)
 4. **SHALL** contain exactly one [1..1] **code** (CONF:16851)
 5. **SHOULD** contain zero or one [0..1] **text** (Reaction Free Text) (CONF:7330)
 6. **SHALL** contain exactly one [1..1] **statusCode/@code="completed"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7328)
 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7332, R2.0=CONF:1098-7332)
 8. **SHALL** contain exactly one [1..1] **value** (Reaction Coded) with **@xsi:type="CD"**, which **SHALL** be selected from ValueSet Problem 2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:7335)
 9. **SHOULD** contain [0..1] **entryRelationship** (Severity) such that it (CONF:7580, CONF:7581, CONF:15922)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to **Severity Observation** (templateId: 2.16.840.1.113883.10.20.22.4.8)

10. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7337, CONF:7338, CONF:15920)
 - a. Contains **@typeCode="RSON" RSON**
 - b. Conforms to **Procedure Activity Procedure** (templateId: 2.16.840.1.113883.10.20.22.4.14)
 - a. This procedure activity is intended to contain information about procedures that were performed in response to an allergy reaction (CONF:16853).
11. **MAY** contain [0..*] **entryRelationship** such that it (CONF:7340, CONF:7341, CONF:15921)
 - a. Contains **@typeCode="RSON" RSON**
 - b. Conforms to **Medication Activity** (templateId: 2.16.840.1.113883.10.20.22.4.16)
 - a. This medication activity is intended to contain information about medications that were administered in response to an allergy reaction (CONF:16840)
12. **SHALL** satisfy: The value set for this code element has not been specified. Implementers are allowed to use any code system, such as SNOMED CT, a locally determined code, or a nullFlavor (CONF:16852)
13. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15917)
14. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15918)
15. 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:15919)
16. effectiveTime, if present, **SHOULD** contain zero or one [0..1] low (CONF:7333, R2.0=CONF:1098-7333)
17. effectiveTime, if present, **SHOULD** contain zero or one [0..1] high (CONF:7334, R2.0=CONF:1098-7334)
18. entryRelationship with target entry Severity Observation **SHALL** contain exactly one [1..1] @inversionInd="true" TRUE (CONF:10375)
19. entryRelationship with target entry ProcedureActivityProcedure **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:7343). (CONF:7343)
20. entryRelationship with target entry MedicationActivity **SHALL** contain exactly one [1..1] @inversionInd="true" True. (CONF:7344)

Reaction Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
  <id root="MDHT" extension="2071274496"/>
  <code code="1884034509"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="CD" code="354772372"/>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
      <id root="MDHT" extension="2070488075"/>
      <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <value xsi:type="CD" code="817746372"/>
    </observation>
  </entryRelationship>
</entryRelationship>
<entryRelationship>
  <procedure classCode="PROC">
```

```

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>
<id root="MDHT" extension="2140573600"/>
<code code="1009181756"/>
<text>Text Value</text>
<effectiveTime>
  <low value="2019"/>
  <high value="2019"/>
</effectiveTime>
<priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
  <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <specimen>
      <specimenRole/>
    </specimen>
  <performer>
    <assignedEntity/>
  </performer>
<entryRelationship typeCode="COMP" inversionInd="true">
  <encounter classCode="ENC" moodCode="EVN"/>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
    <id root="MDHT" extension="1825479632"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <value xsi:type="CD" code="1540820244"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <id root="MDHT" extension="62422486"/>
    <code code="243904753"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable/>
    <performer/>
  </substanceAdministration>
  <entryRelationship>
    <supply classCode="SPLY" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
    </supply>
  </entryRelationship>
</entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <statusCode code="completed"/>
  </observation>

```

```

    </entryRelationship>
    <entryRelationship>
      <act classCode="ACT" moodCode="INT">
        <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN"/>
  </substanceAdministration>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1263312622"/>
    <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
  </act>
</entryRelationship>
</procedure>
</entryRelationship>
<entryRelationship>
  <substanceAdministration classCode="SBADM">
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
    <id root="MDHT" extension="968702122"/>
    <code code="1787709717"/>
    <text>Text Value</text>
    <effectiveTime value="20190227"/>
    <routeCode codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
    <administrationUnitCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
    <consumable>
      <manufacturedProduct classCode="MANU">
        <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      </manufacturedProduct>
    </consumable>
  </performer>
</entryRelationship>

```

```

<supply classCode="SPLY" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
  <id root="MDHT" extension="228526373"/>
  <code code="1866642314"/>
  <text>Text Value</text>
  <effectiveTime value="20190227"/>
  <author/>
  <entryRelationship>
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
      <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <statusCode code="completed"/>
    </act>
  </entryRelationship>
</supply>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.9"/>
    <id root="MDHT" extension="2056362603"/>
    <code code="1194395525"/>
    <text>Text Value</text>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <value xsi:type="CD" code="480622569"/>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
        <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Severity observation"/>
        <statusCode code="completed"/>
      </observation>
    </entryRelationship>
  </entryRelationship>
  <procedure classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
    <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
    <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
  </procedure>
</entryRelationship>
  <entryRelationship>
    <substanceAdministration classCode="SBADM">
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <routeCode codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus"/>
      <approachSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
      <administrationUnitCode
codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus"/>
    </substanceAdministration>
  </entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.20"/>
    <id root="MDHT" extension="1051818760"/>

```

```

        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
      </act>
    </entryRelationship>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
        <id root="MDHT" extension="786655749"/>
        <code codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <value xsi:type="CD" code="1713206855"/>
      </observation>
    </entryRelationship>
    <entryRelationship>
      <supply classCode="SPLY" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.18"/>
        <id root="MDHT" extension="202398052"/>
        <code code="351256207"/>
        <text>Text Value</text>
        <effectiveTime value="20190227"/>
        <performer/>
        <entryRelationship>
          <supply classCode="SPLY" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.17"/>
          </supply>
        </entryRelationship>
      </supply>
    </entryRelationship>
    <precondition typeCode="PRCN">
      <criterion>
        <templateId root="2.16.840.1.113883.10.20.22.4.25"/>
      </criterion>
    </precondition>
  </substanceAdministration>
</entryRelationship>
</observation>

```

Referenced Frames Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.10]

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.

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.10"
2. **SHALL** contain exactly one [1..1] **@classCode**="ROIEND" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9276)

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9277)
4. **SHALL** contain exactly one [1..1] **code/@code**="121190" *Referenced Frames* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9278)
5. **SHALL** contain [1..1] **entryRelationship** such that it (CONF:9279, CONF:9280, CONF:9281)
 - a. Contains **@typeCode**="COMP" *COMP*
 - b. Conforms to [Boundary Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.11)
1. **SHALL** contain exactly one [1..1] **@classCode**="ROIBND" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9276)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9277)
3. **SHALL** contain exactly one [1..1] **code/@code**="121190" *Referenced Frames* (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9278)
4. **SHALL** contain [1..1] **entryRelationship** such that it (CONF:9279, CONF:9280, CONF:9281)
 - a. Contains **@typeCode**="COMP" *COMP*
 - b. Conforms to [Boundary Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.11)

Referenced Frames Observation example

```
<observation xmlns="urn:hl7-org:v3" 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" codeSystemName="DCM"
  displayName="Referenced Frames"/>
  <text>Text Value</text>
  <entryRelationship>
    <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"
      codeSystemName="DCM" displayName="Frames for Display"/>
      <text>Text Value</text>
    </observation>
  </entryRelationship>
</observation>
```

Result

[Observation: templateId 2.16.840.1.113883.10.20.22.4.2]

This clinical statement represents details of a lab, radiology, or other study performed on a patient. The result observation includes a **statusCode** to allow recording the status of an observation. If a Results Observation is not completed, the Result Organizer must include corresponding **statusCode**. "Pending" results (e.g., a test has been run but results have not been reported yet) should be represented as "active" **ActStatus**.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9138) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7130, R2.1=CONF:1198-7130)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7131, R2.1=CONF:1198-7131)
4. **SHALL** contain at least one [1..*] **id** (Result ID) (CONF:7137, R2.1=CONF:1198-7137)
5. **SHALL** contain exactly one [1..1] **code** (Result Type) (CONF:7133, R2.1=CONF:1198-7133)

6. **SHOULD** contain zero or one [0..1] **text** (CONF:7138)
 - a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15924)
 1. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15925)
 2. 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:15926)
7. **SHALL** contain exactly one [1..1] **statusCode** (Result Status) (CONF:7134, R2.1=CONF:1198-7134), which **SHALL** be selected from ValueSet Result Status 2.16.840.1.113883.11.20.9.39 **STATIC** 2013-08-09 (CONF:14849, R2.1=CONF:1198-14849)
8. **SHALL** contain exactly one [1..1] **effectiveTime** (Result Date/Time) (CONF:7140)

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) CONF:16838
9. **SHALL** contain exactly one [1..1] **value** (Result Value) (CONF:7143)
10. **SHOULD** contain zero or more [0..*] **interpretationCode** (Result Interpretation) (CONF:7147)
11. **MAY** contain zero or one [0..1] **methodCode** (CONF:7148, R2.1=CONF:1198-7148)
12. **MAY** contain zero or one [0..1] **targetSiteCode** with **@xsi:type="CE"** (CONF:7153, R2.1=CONF:1198-7153)
13. The value for 'code' in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96) 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. Local and/or regional codes for laboratory results are allowed. The Local and/or regional codes **SHOULD** be sent in the translation element. (CONF:7166)
14. **SHOULD** contain zero or more [0..*] referenceRange. Such referenceRanges, if present, **SHALL** contain exactly one [1..1] observationRange. This observationRange **SHALL NOT** contain [0..0] code (CONF:7152)
15. **MAY** contain zero or one [0..1] author (CONF:7149)
 1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7130, R2.1=CONF:1198-7130)
 2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7131, R2.1=CONF:1198-7131)
 3. **SHALL** contain at least one [1..*] **id** (Result ID) (CONF:7137, R2.1=CONF:1198-7137)
 4. **SHALL** contain exactly one [1..1] **code** (Result Type) (CONF:7133, R2.1=CONF:1198-7133)
 5. **SHOULD** contain zero or one [0..1] **text** (CONF:7138)
 - a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15924)
 1. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15925)
 2. 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:15926)
6. **SHALL** contain exactly one [1..1] **statusCode** (Result Status) (CONF:7134, R2.1=CONF:1198-7134), which **SHALL** be selected from ValueSet Result Status 2.16.840.1.113883.11.20.9.39 **STATIC** 2013-08-09 (CONF:14849, R2.1=CONF:1198-14849)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (Result Date/Time) (CONF:7140)

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) CONF:16838
8. **SHALL** contain exactly one [1..1] **value** (Result Value) (CONF:7143)
9. **SHOULD** contain zero or more [0..*] **interpretationCode** (Result Interpretation) (CONF:7147)
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:7148, R2.1=CONF:1198-7148)
11. **MAY** contain zero or one [0..1] **targetSiteCode** with **@xsi:type="CE"** (CONF:7153, R2.1=CONF:1198-7153)
12. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15924)

13. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15925)
14. 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:15926)
15. The value for 'code' in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96) 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. Local and/or regional codes for laboratory results are allowed. The Local and/or regional codes **SHOULD** be sent in the translation element. (CONF:7166)
16. **SHOULD** contain zero or more [0..*] referenceRange. Such referenceRanges, if present, **SHALL** contain exactly one [1..1] observationRange. This observationRange **SHALL NOT** contain [0..0] code (CONF:7152)
17. **MAY** contain zero or one [0..1] author (CONF:7149)

Result example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <id root="MDHT" extension="1394765022"/>
  <code code="439894470"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <interpretationCode code="588322068"/>
  <methodCode code="1085384464"/>
  <targetSiteCode xsi:type="CE" code="882081646"/>
</observation>
```

Result Organizer

[Organizer: templateId 2.16.840.1.113883.10.20.22.4.1]

This clinical statement identifies set of result observations. It contains information applicable to all of the contained result observations. Result type codes categorize a result into one of several commonly accepted values (e.g., "Hematology", "Chemistry", "Nuclear Medicine"). These values are often implicit in the Organizer/code (e.g., an Organizer/code of "complete blood count" implies a ResultTypeCode of "Hematology"). This template requires Organizer/code to include a ResultTypeCode either directly or as a translation of a code from some other code system. An appropriate nullFlavor can be used when the organizer/code or organizer/id is unknown. If any Results Observation within the organizer has a statusCode of 'active', the Result Organizer must also have as statusCode of 'active'.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7126, CONF:9134) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1"
2. **SHALL** contain exactly one [1..1] @classCode (CONF:7121, R2.1=CONF:1198-7121)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7122, R2.1=CONF:1198-7122)
4. **SHALL** contain at least one [1..*] **id** (CONF:7127, R2.1=CONF:1198-7127)
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7123, R2.1=CONF:1198-7123), which **SHALL** be selected from ValueSet Result Status 2.16.840.1.113883.11.20.9.39 **STATIC** 2013-08-09 (CONF:14848, R2.1=CONF:1198-14848)
6. **SHALL** contain exactly one [1..1] **code** (CONF:7128, R2.1=CONF:1198-7128)

7. **SHALL** contain [1..*] **component** (result) such that it (CONF:7124, CONF:14850)
 - a. Conforms to [Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.2)
8. The value for 'code' in a result organizer **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). 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. Local and/or regional codes for laboratory results **SHOULD** also be allowed. (CONF:7164)
9. **SHOULD** contain zero or one [0..1] @classCode="CLUSTER" Cluster (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) OR **SHOULD** contain zero or one [0..1] @classCode="BATTERY" Battery (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7165)
1. **SHALL** contain exactly one [1..1] @classCode (CONF:7121, R2.1=CONF:1198-7121)
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7122, R2.1=CONF:1198-7122)
3. **SHALL** contain at least one [1..*] id (CONF:7127, R2.1=CONF:1198-7127)
4. **SHALL** contain exactly one [1..1] code (CONF:7128, R2.1=CONF:1198-7128)
5. **SHALL** contain exactly one [1..1] statusCode (CONF:7123, R2.1=CONF:1198-7123), which **SHALL** be selected from ValueSet Result Status 2.16.840.1.113883.11.20.9.39 **STATIC** 2013-08-09 (CONF:14848, R2.1=CONF:1198-14848)
6. **SHALL** contain [1..*] **component** (result) such that it (CONF:7124, CONF:14850)
 - a. Conforms to [Result Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.2)
7. The value for 'code' in a result organizer **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). 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. Local and/or regional codes for laboratory results **SHOULD** also be allowed. (CONF:7164)
8. **SHOULD** contain zero or one [0..1] @classCode="CLUSTER" Cluster (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) OR **SHOULD** contain zero or one [0..1] @classCode="BATTERY" Battery (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7165)

Result Organizer example

```
<organizer xmlns="urn:hl7-org:v3" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
  <id root="MDHT" extension="33124400"/>
  <code code="520230159"/>
  <statusCode code="completed"/>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <id root="MDHT" extension="309850587"/>
      <code code="699268396"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
    </observation>
  </component>
</organizer>
```

SOP Instance Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.8]

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.

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.8"
2. **SHALL** contain exactly one [1..1] **@classCode**="DGIMG" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9240)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood)
4. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9250)
5. **SHALL** contain at least one [1..*] **id** (CONF:9242)

The @root contains an OID representing the DICOM SOP Instance UID

6. **SHOULD** contain zero or one [0..1] **text** (CONF:9246)
 7. **SHALL** contain exactly one [1..1] **code** (CONF:9244), which **SHALL** be selected from (CodeSystem: 1.2.840.10008.2.6.1 DCMUID)
 8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9254, CONF:9255, CONF:9256)
 - a. Contains **@typeCode**="SUBJ" *SUBJ*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
 9. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9257, CONF:9258, CONF:15935)
 - a. Contains **@typeCode**="RSON" *RSON*
 - b. Conforms to [Purpose of Reference Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.9)
 10. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9260, CONF:9261, CONF:15936)
 - a. This entryRelationship **SHALL** be present if the referenced DICOM object is a multiframe object and the reference does not apply to all frames
 - b. Contains **@typeCode**="COMP" *COMP*
 - c. Conforms to [Referenced Frames Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.10)
 11. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:9251)
 12. The effectiveTime, if present, **SHALL NOT** contain [0..0] low (CONF:9252)
 13. The effectiveTime, if present, **SHALL NOT** contain [0..0] high (CONF:9253)
 14. **code** **SHALL** contain codeSystem 1.2.840.10008.2.6.1 DCMUID and **@code** is an OID for a valid SOP class name UID (CONF:9245)
 15. **text**, if present, **SHALL** contain exactly one [1..1] **@mediaType**="application/dicom" (CONF:9247)
 16. The **text**, if present, **SHALL** contain exactly one [1..1] **reference** (CONF:9248)
 17. **text/reference** **SHALL** contain a **@value** which contains a WADO reference as a URI (CONF:9249)
1. **SHALL** contain exactly one [1..1] **@classCode**="DGIMG" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9240)
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood)
 3. **SHALL** contain at least one [1..*] **id** (CONF:9242)
- The @root contains an OID representing the DICOM SOP Instance UID
4. **SHALL** contain exactly one [1..1] **code** (CONF:9244), which **SHALL** be selected from (CodeSystem: 1.2.840.10008.2.6.1 DCMUID)
 5. **SHOULD** contain zero or one [0..1] **text** (CONF:9246)
 6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9250)

7. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9254, CONF:9255, CONF:9256)
 - a. Contains **@typeCode="SUBJ"** *SUBJ*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9257, CONF:9258, CONF:15935)
 - a. Contains **@typeCode="RSON"** *RSON*
 - b. Conforms to [Purpose of Reference Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.9)
9. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9260, CONF:9261, CONF:15936)
 - a. Contains **@typeCode="COMP"** *COMP*
 - b. Conforms to [Referenced Frames Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.10)
 - a. This entryRelationship SHALL be present if the referenced DICOM object is a multiframe object and the reference does not apply to all frames
10. The effectiveTime, if present, **SHALL** contain exactly one [1..1] @value (CONF:9251)
11. The effectiveTime, if present, **SHALL NOT** contain [0..0] low (CONF:9252)
12. The effectiveTime, if present, **SHALL NOT** contain [0..0] high (CONF:9253)
13. code **SHALL** contain codeSystem 1.2.840.10008.2.6.1 DCMUID and @code is an OID for a valid SOP class name UID (CONF:9245)
14. text, if present, **SHALL** contain exactly one [1..1] @mediaType="application/dicom" (CONF:9247)
15. The text, if present, **SHALL** contain exactly one [1..1] reference (CONF:9248)
16. text/reference **SHALL** contain a @value which contains a WADO reference as a URI (CONF:9249)

SOP Instance Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="DGIMG" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
  <id root="MDHT" extension="214435162"/>
  <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
      <id root="MDHT" extension="2031049089"/>
      <code code="660625203"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="ROIBND" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.10"/>
      <id root="MDHT" extension="1117393358"/>
      <code code="121190" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM" displayName="Referenced Frames"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.11"/>
```

```

<id root="MDHT" extension="108747331"/>
<code code="113036" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM" displayName="Frames for Display"/>
<text>Text Value</text>
<effectiveTime>
  <low value="2019"/>
  <high value="2019"/>
</effectiveTime>
</observation>
</entryRelationship>
</observation>
</entryRelationship>
</observation>

```

Series Act

[Act: templateId 2.16.840.1.113883.10.20.22.4.63]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10918, CONF:10919) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.63"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9222)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9223)
4. **SHALL** contain exactly one [1..1] **code/@code**="113015" (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9228)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9235)

If present, the effectiveTime contains the time the series was started
6. **SHALL** contain at least one [1..*] **id** (CONF:9224)
7. **MAY** contain zero or one [0..1] **text** (CONF:9233)

If present, the text element contains the description of the series
8. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:9237, CONF:9238, CONF:15927)
 - a. Contains **@typeCode**="COMP" *COMP*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
9. **ids SHALL** contain exactly one [1..1] **@root** (CONF:9225)
10. **ids SHALL NOT** contain [0..0] **@extension** (CONF:9226)
11. **code SHALL** contain exactly one [1..1] **qualifier** (CONF:9229)
12. This qualifier **SHALL** contain exactly one [1..1] **name**="121139" *Modality* (CodeSystem: DCM 1.2.840.10008.2.16.4) (CONF:9230)
13. This qualifier **SHALL** contain exactly one [1..1] **value** (CONF:9231)
14. **SHALL** satisfy: The value element code contains a modality code and codeSystem is 1.2.840.10008.2.16.4 (CONF:9232)
1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9222)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9223)
3. **SHALL** contain at least one [1..*] **id** (CONF:9224)

4. **SHALL** contain exactly one [1..1] **code/@code="113015"** (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9228)
5. **MAY** contain zero or one [0..1] **text** (CONF:9233)
If present, the text element contains the description of the series
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9235)
If present, the effectiveTime contains the time the series was started
7. **SHALL** contain [1..*] **entryRelationship** such that it (CONF:9237, CONF:9238, CONF:15927)
 - a. Contains **@typeCode="COMP"** *COMP*
 - b. Conforms to **SOP Instance Observation** (templateId: 2.16.840.1.113883.10.20.6.2.8)
8. **ids SHALL** contain exactly one [1..1] **@root** (CONF:9225)
9. **ids SHALL NOT** contain [0..0] **@extension** (CONF:9226)
10. **code SHALL** contain exactly one [1..1] **qualifier** (CONF:9229)
11. This qualifier **SHALL** contain exactly one [1..1] **name="121139"** Modality (CodeSystem: DCM 1.2.840.10008.2.16.4) (CONF:9230)
12. This qualifier **SHALL** contain exactly one [1..1] **value** (CONF:9231)
13. **SHALL** satisfy: The value element code contains a modality code and codeSystem is 1.2.840.10008.2.16.4 (CONF:9232)

Series Act example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.63"/>
  <id root="MDHT" extension="2037695141"/>
  <code code="113015" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="DGIMG" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
      <id root="MDHT" extension="15579643"/>
      <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
      <id root="MDHT" extension="1414379246"/>
      <code code="1952607264"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
  <entryRelationship>
    <observation classCode="ROIBND" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.10"/>
      <id root="MDHT" extension="97204668"/>
      <code code="121190" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM" displayName="Referenced Frames"/>
    </observation>
  </entryRelationship>
</act>
```

```

    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <entryRelationship>
      <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"
codeSystemName="DCM" displayName="Frames for Display"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</act>

```

Severity Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.8]

This clinical statement represents the gravity of the problem, such as allergy or reaction, in terms of its actual or potential impact on the patient. The Severity Observation can be associated with an Allergy Observation, Reaction Observation or both. When the Severity Observation is associated directly with an Allergy it characterizes the Allergy. When the Severity Observation is associated with a Reaction Observation it characterizes a Reaction. 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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7347, CONF:10525) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.8"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7345, R2.0=CONF:1098-7345)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7346, R2.0=CONF:1098-7346)
4. **SHALL** contain exactly one [1..1] **code/@code**="SEV" *Severity observation* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:7349)
5. **SHOULD** contain zero or one [0..1] **text** (Severity Free Text) (CONF:7350)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7352)
7. **SHALL** contain exactly one [1..1] **value** (Severity Coded) with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Problem Severity 2.16.840.1.113883.3.88.12.3221.6.8 **DYNAMIC** (CONF:7356)
8. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15928)
9. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15929)
10. 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:15930)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7345, R2.0=CONF:1098-7345)
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7346, R2.0=CONF:1098-7346)
3. **SHALL** contain exactly one [1..1] **code/@code**="SEV" *Severity observation* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) (CONF:7349)

4. **SHOULD** contain zero or one [0..1] **text** (Severity Free Text) (CONF:7350)
5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7352)
6. **SHALL** contain exactly one [1..1] **value** (Severity Coded) with **@xsi:type**="CD", which **SHALL** be selected from ValueSet Problem Severity 2.16.840.1.113883.3.88.12.3221.6.8 **DYNAMIC** (CONF:7356)
7. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15928)
8. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15929)
9. 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:15930)

Severity Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.8"/>
  <code code="SEV" codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="HL7ActCode" displayName="Severity observation"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="905990910"/>
</observation>
```

Social History Observation

[Observation: templateId 2.16.840.1.113883.10.20.22.4.38]

This Social History Observation defines the patient's occupational, personal (e.g., lifestyle), social, and environmental history and health risk factors, as well as administrative data such as marital status, race, ethnicity, and religious affiliation.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:8550) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.38"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8548, R2.1=CONF:1198-8548)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8549, R2.1=CONF:1198-8549)
4. **SHALL** contain at least one [1..*] **id** (CONF:8551, R2.1=CONF:1198-8551)
5. **SHOULD** contain zero or one [0..1] **code** (CONF:8558), which **SHOULD** be selected from ValueSet Social History Type Value Set 2.16.840.1.113883.3.88.12.80.60 **DYNAMIC** (CONF:8896)
6. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8553)
7. **SHOULD** contain zero or one [0..1] **value** (CONF:8559)

Observation/value can be any data type. Where Observation/value is a physical quantity, the unit of measure **SHALL** be expressed using a valid Unified Code for Units of Measure (UCUM) expression.
8. code, if present, **SHOULD** contain zero or one [0..1] **originalText** (CONF:8893, R2.1=CONF:1198-19221)
9. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference/@value**. (CONF:8894, R2.1=CONF:1198-19222)
10. **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:8895). (CONF:8895, R2.1=CONF:1198-19224)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:8548, R2.1=CONF:1198-8548)

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:8549, R2.1=CONF:1198-8549)
3. **SHALL** contain at least one [1..*] **id** (CONF:8551, R2.1=CONF:1198-8551)
4. **SHOULD** contain zero or one [0..1] **code** (CONF:8558), which **SHOULD** be selected from ValueSet *Social History Type Value Set* 2.16.840.1.113883.3.88.12.80.60 **DYNAMIC** (CONF:8896)
5. **SHALL** contain exactly one [1..1] **statusCode/@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:8553)
6. **SHOULD** contain zero or one [0..1] **value** (CONF:8559)
 Observation/value can be any data type. Where Observation/value is a physical quantity, the unit of measure **SHALL** be expressed using a valid Unified Code for Units of Measure (UCUM) expression.
7. **code**, if present, **SHOULD** contain zero or one [0..1] **originalText** (CONF:8893, R2.1=CONF:1198-19221)
8. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference/@value**. (CONF:8894, R2.1=CONF:1198-19222)
9. **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:8895). (CONF:8895, R2.1=CONF:1198-19224)

Social History Observation example

```
<observation xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.38"/>
  <id root="MDHT" extension="733034718"/>
  <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
</observation>
```

Study Act

[Act: templateId 2.16.840.1.113883.10.20.6.2.6]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:10533) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.6"
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9207)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9208)
4. **SHALL** contain at least one [1..*] **id** (CONF:9210)
5. **SHALL** contain exactly one [1..1] **code/@code**="113014" (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9214)
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9216)

If present, the **effectiveTime** contains the time the study was started

7. **MAY** contain zero or one [0..1] **text** (CONF:9215)

If present, the text element contains the description of the study

a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15995)

1. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15996)

- a. 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:15997)

8. **SHALL** contain [1..1] **entryRelationship** such that it (CONF:9219, CONF:9220, CONF:15937)

a. Contains @typeCode="COMP" *COMP*

b. Conforms to [Series Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.63)

9. ids **SHALL** contain exactly one [1..1] @root (CONF:9213)

10. Such ids **SHALL NOT** contain [0..0] @extension (CONF:9211)

1. **SHALL** contain exactly one [1..1] @classCode="ACT" *Act* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9207)

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9208)

3. **SHALL** contain at least one [1..*] id (CONF:9210)

4. **SHALL** contain exactly one [1..1] code/@code="113014" (CodeSystem: 1.2.840.10008.2.16.4 DCM) (CONF:9214)

5. **MAY** contain zero or one [0..1] **text** (CONF:9215)

a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15995)

1. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15996)

- a. 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:15997)

If present, the text element contains the description of the study

6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9216)

If present, the effectiveTime contains the time the study was started

7. **SHALL** contain [1..1] **entryRelationship** such that it (CONF:9219, CONF:9220, CONF:15937)

a. Contains @typeCode="COMP" *COMP*

b. Conforms to [Series Act](#) (templateId: 2.16.840.1.113883.10.20.22.4.63)

8. ids **SHALL** contain exactly one [1..1] @root (CONF:9213)

9. Such ids **SHALL NOT** contain [0..0] @extension (CONF:9211)

10. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15995)

11. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15996)

12. 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:15997)

Study Act example

```
<act xmlns="urn:hl7-org:v3" classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
  <id root="MDHT" extension="553974515"/>
  <code code="113014" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
```

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.63"/>
  <id root="MDHT" extension="1491485397"/>
  <code code="113015" codeSystem="1.2.840.10008.2.16.4"
codeSystemName="DCM"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <entryRelationship>
    <observation classCode="DGIMG" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
      <id root="MDHT" extension="608193193"/>
      <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2019"/>
        <high value="2019"/>
      </effectiveTime>
      <entryRelationship>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
        </observation>
      </entryRelationship>
    </entryRelationship>
    <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
    </observation>
  </entryRelationship>
</act>
</entryRelationship>
</act>

```

Text Observation

[Observation: templateId 2.16.840.1.113883.10.20.6.2.12]

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.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:9290, CONF:10534) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.12"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9288)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9289)
4. **SHALL** contain exactly one [1..1] **code** (CONF:9291)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9294)

6. **MAY** contain zero or one [0..1] **text** (CONF:9295)
 - a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15938)
 1. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15939)
 - a. 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:15940)
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="ED"** (CONF:9292)
8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9298, CONF:9299, CONF:15941)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
9. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9301, CONF:9302, CONF:15942)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to [Quantity Measurement Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.14)
1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:9288)
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:9289)
3. **SHALL** contain exactly one [1..1] **code** (CONF:9291)
4. **MAY** contain zero or one [0..1] **text** (CONF:9295)
 - a. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15938)
 1. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15939)
 - a. 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:15940)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:9294)
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="ED"** (CONF:9292)
7. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9298, CONF:9299, CONF:15941)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to [SOP Instance Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.8)
8. **MAY** contain [0..*] **entryRelationship** such that it (CONF:9301, CONF:9302, CONF:15942)
 - a. Contains **@typeCode="SPRT"** *SPRT*
 - b. Conforms to [Quantity Measurement Observation](#) (templateId: 2.16.840.1.113883.10.20.6.2.14)
9. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15938)
10. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15939)
11. 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:15940)

Text Observation example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.12"/>
  <code code="317873588"/>
  <text>Text Value</text>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="ED">Text Value</value>
  <entryRelationship>
    <observation classCode="DGIMG" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
```

```

<code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
<text>Text Value</text>
<effectiveTime>
  <low value="2019"/>
  <high value="2019"/>
</effectiveTime>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
    <code code="1984606229"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <value xsi:type="CD" code="932566151"/>
  </observation>
</entryRelationship>
<entryRelationship>
  <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <entryRelationship>
      <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"
codeSystemName="DCM" displayName="Frames for Display"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
<entryRelationship>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.14"/>
    <code code="1578894415"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <value xsi:type="PQ"/>
  </observation>
</entryRelationship>
  <observation classCode="DGIMG" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
    <code codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"/>
    <text>Text Value</text>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <entryRelationship>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>

```

```

      <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"
codeSystemName="DCM" displayName="Referenced Frames"/>
      </observation>
    </entryRelationship>
  </observation>
</entryRelationship>
</observation>
</entryRelationship>
</observation>

```

Vital Sign

[Observation: templateId 2.16.840.1.113883.10.20.22.4.27]

Vital signs are represented as are other results, with additional vocabulary constraints.

1. **SHALL** contain exactly one [1..1] **templateId** ((CONF:7299, CONF:10527)) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.27"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7297, R2.0=CONF:1098-7297)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7298, R2.0=CONF:1098-7298)
4. **SHALL** contain at least one [1..*] **id** (Vital Sign ID) (CONF:7300, R2.0=CONF:1098-7300)
5. **SHALL** contain exactly one [1..1] **code** (Vital Sign Type), which **SHOULD** be selected from ValueSet HITSP Vital Sign Result Type 2.16.840.1.113883.3.88.12.80.62 **DYNAMIC** (CONF:7301, R2.0=CONF:1098-7301)
6. **SHALL** contain exactly one [1..1] **statusCode** (R2.0=CONF:1098-7303)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7303, R2.0=CONF:1098-19119)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (Vital Sign Date/Time) (CONF:7304)

Represents the biologically relevant time (e.g. time the specimen was obtained from the patient).
8. **SHALL** contain exactly one [1..1] **value** (Vital Sign Value) with **@xsi:type**="PQ" (CONF:7305)
9. **MAY** contain zero or one [0..1] **interpretationCode** (Vital Sign Interpretation) (CONF:7307)

The interpretation code may be present to provide an interpretation of the vital signs measure (e.g., High, Normal, Low, et cetera).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:7308, R2.0=CONF:1098-7308)

The method code element may be present to indicate the method used to obtain the measure. Note that method used is distinct from, but possibly related to the target site.
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:7309, R2.0=CONF:1098-7309)

The target site of the measure may be identified in the targetSiteCode element (e.g., Left arm [blood pressure], oral [temperature], et cetera).
12. **SHOULD** contain zero or one [0..1] **text** (CONF:7302)
13. **MAY** contain [0..1] **author** such that it (CONF:7310)
 - a. Conforms to Author from CDA
14. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15943)
15. reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15944)
16. 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:15945)
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7297, R2.0=CONF:1098-7297)

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7298, R2.0=CONF:1098-7298)
3. **SHALL** contain at least one [1..*] **id** (Vital Sign ID) (CONF:7300, R2.0=CONF:1098-7300)
4. **SHALL** contain exactly one [1..1] **code** (Vital Sign Type), which **SHOULD** be selected from ValueSet HITSP Vital Sign Result Type 2.16.840.1.113883.3.88.12.80.62 **DYNAMIC** (CONF:7301, R2.0=CONF:1098-7301)
5. **SHOULD** contain zero or one [0..1] **text** (CONF:7302)
6. **SHALL** contain exactly one [1..1] **statusCode** (R2.0=CONF:1098-7303)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7303, R2.0=CONF:1098-19119)
7. **SHALL** contain exactly one [1..1] **effectiveTime** (Vital Sign Date/Time) (CONF:7304)
Represents the biologically relevant time (e.g. time the specimen was obtained from the patient).
8. **SHALL** contain exactly one [1..1] **value** (Vital Sign Value) with **@xsi:type**="PQ" (CONF:7305)
9. **MAY** contain zero or one [0..1] **interpretationCode** (Vital Sign Interpretation) (CONF:7307)

The interpretation code may be present to provide an interpretation of the vital signs measure (e.g., High, Normal, Low, et cetera).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:7308, R2.0=CONF:1098-7308)

The method code element may be present to indicate the method used to obtain the measure. Note that method used is distinct from, but possibly related to the target site.
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:7309, R2.0=CONF:1098-7309)

The target site of the measure may be identified in the targetSiteCode element (e.g., Left arm [blood pressure], oral [temperature], et cetera).
12. **MAY** contain [0..1] **author** such that it (CONF:7310)
 - a. Conforms to Author from CDA
13. **text**, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15943)
14. **reference**, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15944)
15. **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:15945)

Vital Sign example

```
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="urn:hl7-org:v3" classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
  <id root="MDHT" extension="1998717524"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2019"/>
    <high value="2019"/>
  </effectiveTime>
  <value xsi:type="PQ"/>
  <interpretationCode code="1776480680"/>
  <methodCode code="1164096606"/>
  <targetSiteCode code="1419495466"/>
  <author/>
</observation>
```

Vital Signs Organizer

[Organizer: templateId 2.16.840.1.113883.10.20.22.4.26]

The Vital Signs Organizer groups vital signs, which is similar to the Result Organizer, but with further constraints. An appropriate nullFlavor can be used when organizer/code or organizer/id is unknown.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:7281, CONF:10528) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.26"
2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7279, R2.1=CONF:1198-7279)

The vital signs organizer is a cluster of vital signs observations.

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7280, R2.1=CONF:1198-7280)
4. **SHALL** contain at least one [1..*] **id** (CONF:7282, R2.1=CONF:1198-7282)

The organizer shall have an <id> element.

5. **SHALL** contain exactly one [1..1] **code/@code**="46680005" *Vital signs* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:7283)
6. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-7284)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7284, R2.1=CONF:1198-19120)

The observations have all been completed.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7288)

represents clinically effective time of the measurement, which is most likely when the measurement was performed (e.g., a BP measurement). (CONF:7289).
8. **SHALL** contain [1..*] **component** (Vital Sign) such that it (CONF:7285, CONF:15946)
 - a. Conforms to [Vital Sign Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.27)
1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7279, R2.1=CONF:1198-7279)

The vital signs organizer is a cluster of vital signs observations.

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7280, R2.1=CONF:1198-7280)
3. **SHALL** contain at least one [1..*] **id** (CONF:7282, R2.1=CONF:1198-7282)

The organizer shall have an <id> element.

4. **SHALL** contain exactly one [1..1] **code/@code**="46680005" *Vital signs* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:7283)
5. **SHALL** contain exactly one [1..1] **statusCode** (R2.1=CONF:1198-7284)/**@code**="completed" (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:7284, R2.1=CONF:1198-19120)

The observations have all been completed.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7288)

represents clinically effective time of the measurement, which is most likely when the measurement was performed (e.g., a BP measurement). (CONF:7289).
7. **SHALL** contain [1..*] **component** (Vital Sign) such that it (CONF:7285, CONF:15946)
 - a. Conforms to [Vital Sign Observation](#) (templateId: 2.16.840.1.113883.10.20.22.4.27)

Vital Signs Organizer example

```
<organizer xmlns="urn:hl7-org:v3" classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.26"/>
  <id root="MDHT" extension="1320461695"/>
```

```

    <code code="46680005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Vital signs"/>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="2019"/>
      <high value="2019"/>
    </effectiveTime>
    <component>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
        <id root="MDHT" extension="435884262"/>
        <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <text>Text Value</text>
        <statusCode code="completed"/>
        <effectiveTime>
          <low value="2019"/>
          <high value="2019"/>
        </effectiveTime>
        <author/>
      </observation>
    </component>
  </organizer>

```

Chapter

6

REFERENCES

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- [Administrative Gender \(HL7 V3\)](#)
- [Advance Directive Type Code](#)
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- Vaccines Administered Value Set

Act Priority

Value Set	Act Priority - 2.16.840.1.113883.1.11.16866
Code System	ActPriority - 2.16.840.1.113883.5.7
Source	http://www.hl7.org
Description	Value Set: Act Priority 2.16.840.1.113883.1.11.16866 Value Set Source: http://www.hl7.org

Code	Code System	Print Name
A	ActPriority	ASAP
CR	ActPriority	Callback results
CS	ActPriority	Callback for scheduling
CSP	ActPriority	Callback placer for scheduling
CSR	ActPriority	Contact recipient for scheduling
EL	ActPriority	Elective
EM	ActPriority	Emergency
P	ActPriority	Preoperative
PRN	ActPriority	As needed
R	ActPriority	Routine
RR	ActPriority	Rush reporting
S	ActPriority	Stat
T	ActPriority	Timing critical
UD	ActPriority	Use as directed
UR	ActPriority	Urgent

Administrative Gender (HL7 V3)

Value Set	Administrative Gender (HL7 V3) - 2.16.840.1.113883.1.11.1
Code System	AdministrativeGenderCode - 2.16.840.1.113883.5.1

Code	Code System	Print Name
F	AdministrativeGenderCode	Female
M	AdministrativeGenderCode	Male
UN	AdministrativeGenderCode	Undifferentiated

Advance Directive Type Code

Value Set	Advance Directive Type Code - 2.16.840.1.113883.1.11.20.2
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	1
Definition	This identifies the type of the Advance Directive. Uses the AdvanceDirectiveTypeCode vocabulary defined by CCD.

Code	Code System	Print Name
281789004	SNOMEDCT	Antibiotics
89666000	SNOMEDCT	CPR
225204009	SNOMEDCT	IV Fluid and Support
52765003	SNOMEDCT	Intubation
78823007	SNOMEDCT	Life Support
304251008	SNOMEDCT	Resuscitation
61420007	SNOMEDCT	Tube Feedings
71388002	SNOMEDCT	Other Directive

Age PQ UCUM

Value Set	AgePQ_UCUM - 2.16.840.1.113883.11.20.9.21
Description	A valueSet of UCUM codes for representing age value units.

Code	Code System	Print Name
min		Minute
h		Hour
d		Day
wk		Week
mo		Month
a		Year

Allergy/Adverse Event Type

Value Set	Allergy/Adverse Event Type - 2.16.840.1.113883.3.88.12.3221.6.2
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Description	This describes the type of product and intolerance suffered by the patient http://phinvads.cdc.gov/vads/ViewValueSet.action?id=7AFDBFB5-A277-DE11-9B52-0015173D1785

Code	Code System	Print Name
420134006	SNOMEDCT	Propensity to adverse reactions
418038007	SNOMEDCT	Propensity to adverse reactions to substance
419511003	SNOMEDCT	Propensity to adverse reactions to drug
418471000	SNOMEDCT	Propensity to adverse reactions to food
419199007	SNOMEDCT	Allergy to substance
416098002	SNOMEDCT	Drug allergy
414285001	SNOMEDCT	Food allergy
59037007	SNOMEDCT	Drug intolerance
235719002	SNOMEDCT	Food intolerance
232347008	SNOMEDCT	Dander (animal) allergy
426232007	SNOMEDCT	Environmental allergy

Body Site Value Set

Value Set	Body Site Value Set - 2.16.840.1.113883.3.88.12.3221.8.9
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	2
Definition	Body site value set is based upon the concepts descending from the SNOMED CT Anatomical Structure (91723000) hierarchy.

Consult Document Type

Value Set	ConsultDocumentType - 2.16.840.1.113883.11.20.9.31
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
11488-4	LOINC	
34100-8	LOINC	
34104-0	LOINC	
51845-6	LOINC	
51853-0	LOINC	
51846-4	LOINC	
34101-6	LOINC	
34749-2	LOINC	
34102-4	LOINC	
34099-2	LOINC	

Code	Code System	Print Name
34756-7	LOINC	
34758-3	LOINC	
34760-9	LOINC	
34879-7	LOINC	
34761-7	LOINC	
34764-1	LOINC	
34771-6	LOINC	
34776-5	LOINC	
34777-3	LOINC	
34779-9	LOINC	
34781-5	LOINC	
34783-1	LOINC	
34785-6	LOINC	
34795-5	LOINC	
34797-1	LOINC	
34798-9	LOINC	
34800-3	LOINC	
34803-7	LOINC	
34855-7	LOINC	
34805-2	LOINC	
34807-8	LOINC	
34810-2	LOINC	
34812-8	LOINC	
34814-4	LOINC	
34816-9	LOINC	
34820-1	LOINC	
34822-7	LOINC	
34824-3	LOINC	
34826-8	LOINC	
34828-4	LOINC	
34788-0	LOINC	
34791-4	LOINC	
34103-2	LOINC	
34831-8	LOINC	

Code	Code System	Print Name
34833-4	LOINC	
34835-9	LOINC	
34837-5	LOINC	
34839-1	LOINC	
34841-7	LOINC	
34845-8	LOINC	
34847-4	LOINC	
34849-0	LOINC	
34851-6	LOINC	
34853-2	LOINC	

Country Value Set

Value Set	CountryValueSet - 2.16.840.1.113883.3.88.12.80.63
Code System	Country (ISO 3166-1) - 1.0.3166.1

Coverage Role Type Value Set

Value Set	Coverage Role Type Value Set - 2.16.840.1.113883.1.11.18877
Code System	RoleCode - 2.16.840.1.113883.5.111
Version	1.0

Code	Code System	Print Name
FAMDEP	RoleCode	Family dependent
FSTUD	RoleCode	Full-time student
HANDIC	RoleCode	Handicapped dependent
INJ	RoleCode	Injured plaintiff
PSTUD	RoleCode	Part-time student
SELF	RoleCode	Self
SPON	RoleCode	Sponsored dependent
STUD	RoleCode	Student

DICOMPurposeOfReference

Value Set	DICOMPurposeOfReference - 2.16.840.1.113883.11.20.9.28
Code System	DCM - 1.2.840.10008.2.16.4

Code	Code System	Print Name
121079	DCM	Baseline
121080	DCM	Best illustration of finding
121112	DCM	Source of Measurement

DICOM Quantity Measurement Type Codes

Value Set	DICOMQuantityMeasurementTypeCodes - 2.16.840.1.113883.11.20.9.30
-----------	--

Code	Code System	Print Name
121211		Path length
121206		Distance
121207		Height
121216		Volume estimated from single 2D region
121218		Volume estimated from two non-coplanar 2D regions
121217		Volume estimated from three or more non-coplanar 2D regions
121222		Volume of sphere
121221		Volume of ellipsoid
121220		Volume of circumscribed sphere
121219		Volume of bounding three dimensional region

DIR Document Type Codes

Value Set	DIRDocumentTypeCodes - 2.16.840.1.113883.11.20.9.32
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
18748-4	LOINC	Diagnostic Imaging Report
18747-6	LOINC	CT Report
18755-9	LOINC	MRI Report
18760-9	LOINC	Ultrasound Report
18757-5	LOINC	Nuclear Medicine Report
18758-3	LOINC	PET Scan Report
18745-0	LOINC	Cardiac Catheterization Report
11522-0	LOINC	Echocardiography Report
18746-8	LOINC	Colonoscopy Report
18751-8	LOINC	Endoscopy Report

Code	Code System	Print Name
11525-3	LOINC	Obstetrical Ultrasound Report

DIR Quantity Measurement Type Codes

Value Set	DIRQuantityMeasurementTypeCodes - 2.16.840.1.113883.11.20.9.29
-----------	--

Code	Code System	Print Name
439932008		Length of structure
440357003		Width of structure
439934009		Depth of structure
439984002		Diameter of structure
439933003		Long axis length of structure
439428006		Short axis length of structure
439982003		Major axis length of structure
439983008		Minor axis length of structure
440356007		Perpendicular axis length of structure
439429003		Radius of structure
440433004		Perimeter of non-circular structure
439747008		Circumference of circular structure
439748003		Diameter of circular structure
439746004		Area of structure
439985001		Area of body region
439749006		Volume of structure

Discharge Summary Document Type Code

Value Set	DischargeSummaryDocumentTypeCode - 2.16.840.1.113883.11.20.4.1
Code System	LOINC - 2.16.840.1.113883.6.1
Definition	A value set of LOINC document codes for discharge summaries.

Code	Code System	Print Name
18842-5	LOINC	
11490-0	LOINC	
28655-9	LOINC	
29761-4	LOINC	
34745-0	LOINC	

Code	Code System	Print Name
34105-7	LOINC	
34106-5	LOINC	

Encounter Type Code

Value Set	EncounterTypeCode - 2.16.840.1.113883.3.88.12.80.32
Code System	CPT-4 - 2.16.840.1.113883.6.12
Version	20170915
Source	VSAC
Source URL	https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.32/expansion
Definition	This value set includes only the codes of the Current Procedure and Terminology designated for Evaluation and Management (99200 to 99607).
Description	This is used to identify medical services and procedures furnished by physicians and other healthcare professionals.

Entity Name Use

Value Set	EntityNameUse - 2.16.840.1.113883.1.11.15913
Code System	EntityNameUse - 2.16.840.1.113883.5.45

Code	Code System	Print Name
A	EntityNameUse	Artist/Stage
ABC	EntityNameUse	Alphabetic
ASGN	EntityNameUse	Assigned
C	EntityNameUse	License
I	EntityNameUse	Indigenous/Tribal
IDE	EntityNameUse	Ideographic
L	EntityNameUse	Legal
P	EntityNameUse	Pseudonym
PHON	EntityNameUse	Phonetic
R	EntityNameUse	Religious
SNDX	EntityNameUse	Soundex
SRCH	EntityNameUse	Search
SYL	EntityNameUse	Syllabic

Entity Person Name Part Qualifier

Value Set	EntityPersonNamePartQualifier - 2.16.840.1.113883.11.20.9.26	
Code	Code System	Print Name
AC		academic
AD		adopted
BR		birth
CL		callme
IN		initial
NB		nobility
PR		professional
SP		spouse
TITLE		title
VV		voorvoegsel

Family History Related Subject Code

Value Set	FamilyHistoryRelatedSubjectCode - 2.16.840.1.113883.1.11.19579	
Code System	RoleCode - 2.16.840.1.113883.5.111	
Version	1	
Definition	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	
Code	Code System	Print Name
ADOPT	RoleCode	adopted child
AUNT	RoleCode	aunt
CHILD	RoleCode	Child
CHLDINLAW	RoleCode	child in-law
COUSN	RoleCode	cousin
DOMPART	RoleCode	domestic partner
FAMMEMB	RoleCode	Family Member
CHLDFOST	RoleCode	foster child
GRNDCHILD	RoleCode	grandchild
GPARNT	RoleCode	grandparent
GRPRN	RoleCode	Grandparent
GGRPRN	RoleCode	great grandparent

Code	Code System	Print Name
HSIB	RoleCode	half-sibling
MAUNT	RoleCode	MaternalAunt
MCOUSN	RoleCode	MaternalCousin
MGRPRN	RoleCode	MaternalGrandparent
MGGRPRN	RoleCode	MaternalGreatgrandparent
MUNCLE	RoleCode	MaternalUncle
NCHILD	RoleCode	natural child
NPRN	RoleCode	natural parent
NSIB	RoleCode	natural sibling
NIENEPH	RoleCode	niece/nephew
PRN	RoleCode	Parent
PRNINLAW	RoleCode	parent in-law
PAUNT	RoleCode	PaternalAunt
PCOUSN	RoleCode	PaternalCousin
PGRPRN	RoleCode	PaternalGrandparent
PGGRPRN	RoleCode	PaternalGreatgrandparent
PUNCLE	RoleCode	PaternalUncle
SIB	RoleCode	Sibling
SIBINLAW	RoleCode	sibling in-law
SIGOTHR	RoleCode	significant other
SPS	RoleCode	spouse
STEP	RoleCode	step child
STPPRN	RoleCode	step parent
STPSIB	RoleCode	step sibling
UNCLE	RoleCode	uncle

Financially Responsible Party Type

Value Set	FinanciallyResponsiblePartyType - 2.16.840.1.113883.1.11.10416
Code System	HL7RoleClass - 2.16.840.1.113883.5.110

HITSP Ethnicity Value Set

Value Set	HITSP Ethnicity Value Set - 2.16.840.1.113883.1.11.15836
Code System	Race and Ethnicity - CDC - 2.16.840.1.113883.6.238

HITSP Problem Status

Value Set	HITSP Problem Status - 2.16.840.1.113883.3.88.12.80.68
Code System	SNOMEDCT - 2.16.840.1.113883.6.96

Code	Code System	Print Name
55561003	SNOMEDCT	Active
73425007	SNOMEDCT	Inactive
413322009	SNOMEDCT	Resolved

HITSP Vital Sign Result Type

Value Set	HITSP Vital Sign Result Type - 2.16.840.1.113883.3.88.12.80.62
Code System	LOINC - 2.16.840.1.113883.6.1
Version	20150424
Source	https://vsac.nlm.nih.gov/
Definition	This identifies the vital sign result type

HL7 BasicConfidentialityKind

Value Set	HL7 BasicConfidentialityKind - 2.16.840.1.113883.1.11.16926
Code System	ConfidentialityCode - 2.16.840.1.113883.5.25
Version	2010-04-21
Source	HL7

Code	Code System	Print Name
N	ConfidentialityCode	Normal
R	ConfidentialityCode	Restricted
V	ConfidentialityCode	Very Restricted

HL7 LanguageAbilityMode

Value Set	HL7 LanguageAbilityMode - 2.16.840.1.113883.1.11.12249
Code System	LanguageAbilityMode - 2.16.840.1.113883.5.60
Version	1
Definition	This identifies the language ability of the individual. A value representing the method of expression of the language.

Code	Code System	Print Name
ESGN	LanguageAbilityMode	Expressed signed
ESP	LanguageAbilityMode	Expressed spoken
EWR	LanguageAbilityMode	Expressed written
RSGN	LanguageAbilityMode	Received signed
RSP	LanguageAbilityMode	Received spoken
RWR	LanguageAbilityMode	Received written

HL7 Marital Status

Value Set	HL7 Marital Status - 2.16.840.1.113883.1.11.12212
Code System	MaritalStatus - 2.16.840.1.113883.5.2
Version	1
Definition	Marital Status is the domestic partnership status of a person.

Code	Code System	Print Name
A	MaritalStatus	Annulled
D	MaritalStatus	Divorced
I	MaritalStatus	Interlocutory
L	MaritalStatus	Legally Separated
M	MaritalStatus	Married
P	MaritalStatus	Polygamous
S	MaritalStatus	Never Married
T	MaritalStatus	Domestic partner
W	MaritalStatus	Widowed

HL7 Religious Affiliation

Value Set	HL7 Religious Affiliation - 2.16.840.1.113883.1.11.19185
Code System	ReligiousAffiliation - 2.16.840.1.113883.5.1076
Version	1
Definition	This reflects the spiritual faith affiliation

HP Document Type

Value Set	HPDocumentType - 3. 2.16.840.1.113883.1.11.20.22
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
34117-2	LOINC	
11492-6	LOINC	
28626-0	LOINC	
34774-0	LOINC	
34115-6	LOINC	
34116-4	LOINC	
34095-0	LOINC	
34096-8	LOINC	
51849-8	LOINC	
47039-3	LOINC	
34763-3	LOINC	
34094-3	LOINC	
34138-8	LOINC	

Health Insurance Type Value Set

Value Set	Health Insurance Type Value Set - 2.16.840.1.113883.3.88.12.3221.5.2
Version	20081218
Source	HITSP
Definition	This value set uses the ACS X12 vocabulary for Insurance Type Code (ASC X12 Data Element 1336) and has been limited by HITSP to the value set reproduced below in Table 2-52 Health Insurance Type Value Set Definition The type of health plan covering the individual, e.g., an HMO, PPO, POS, etc.

Code	Code System	Print Name
12		Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan
13		Medicare Secondary End-Stage Renal Disease Beneficiary in the 12 month coordination period with an employer's group health plan
14		Medicare Secondary, No-fault Insurance including Auto is Primary
15		Medicare Secondary Worker's Compensation
16		Medicare Secondary Public Health Service (PHS) or Other Federal Agency
41		Medicare Secondary Black Lung
42		Medicare Secondary Veteran's Administration
43		Medicare Secondary Disabled Beneficiary Under Age 65 with Large Group Health Plan (LGHP)

Code	Code System	Print Name
47		Medicare Secondary, Other Liability Insurance is Primary
AP		Auto Insurance Policy
C1		Commercial
CO		Consolidated Omnibus Budget Reconciliation Act (COBRA)
CP		Medicare Conditionally Primary
D		Disability
DB		Disability Benefits
EP		Exclusive Provider Organization
FF		Family or Friends
GP		Group Policy
HM		Health Maintenance Organization (HMO)
HN		Health Maintenance Organization (HMO) - Medicare Risk
HS		Special Low Income Medicare Beneficiary
IN		Indemnity
IP		Individual Policy
LC		Long Term Care
LD		Long Term Policy
LI		Life Insurance
LT		Litigation
MA		Medicare Part A
MB		Medicare Part B
MC		Medicaid
MH		Medigap Part A
MI		Medigap Part B
MP		Medicare Primary
OT		Other
PE		Property Insurance - Personal
PL		Personal
PP		Personal Payment (Cash - No Insurance)
PR		Preferred Provider Organization (PPO)
PS		Point of Service (POS)
QM		Qualified Medicare Beneficiary
RP		Property Insurance - Real
SP		Supplemental Policy

Code	Code System	Print Name
TF		Tax Equity Fiscal Responsibility Act (TEFRA)
WC		Workers Compensation
WU		Wrap Up Policy

Healthcare Provider Taxonomy (NUCC - HIPAA)

Value Set	Healthcare Provider Taxonomy (NUCC - HIPAA) - 2.16.840.1.114222.4.11.1066
Code System	NUCC Health Care Provider Taxonomy - 2.16.840.1.113883.6.101

Healthcare Service Location

Value Set	HealthcareServiceLocation - 2.16.840.1.113883.1.11.20275
Code System	HealthcareServiceLocation - 2.16.840.1.113883.6.259
Definition	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.

IND Roleclass Codes

Value Set	INDRoleclassCodes - 2.16.840.1.113883.11.20.9.33
Version	2011-09-30
Description	Specific classification codes for further qualifying RoleClass codes.

Code	Code System	Print Name
PRS		personal relationship
NOK		next of kin
CAREGIVER		caregiver
AGNT		agent
GUAR		guarantor
ECON		emergency contact

Ingredient Name

Value Set	Ingredient Name - 2.16.840.1.113883.3.88.12.80.20
Description	Unique ingredient identifiers (UNII)s for substances in drugs, biologics, foods, and devices. http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/ucm162523.htm

Language

Value Set	Language - 2.16.840.1.113883.1.11.11526
Code System	Language - 2.16.840.1.113883.6.121
Source	Internet RFC 4646
Source URL	http://www.loc.gov/standards/iso639-2/php/code_list.php
Definition	A value set of codes defined by Internet RFC 4646 (replacing RFC 3066). Please see ISO 639 language code set maintained by Library of Congress for enumeration of language codes.

Language Ability Proficiency

Value Set	LanguageAbilityProficiency - 2.16.840.1.113883.1.11.12199	
Code System	LanguageAbilityProficiency - 2.16.840.1.113883.5.61	
Code	Code System	Print Name
E	LanguageAbilityProficiency	Excellent
F	LanguageAbilityProficiency	Fair
G	LanguageAbilityProficiency	Good
P	LanguageAbilityProficiency	Poor

Medication Brand Name

Value Set	Medication Brand Name - 2.16.840.1.113883.3.88.12.80.16
Description	Brand names http://phinvals.cdc.gov/vads/ViewValueSet.action?id=229BEF3E-971C-DF11-B334-0015173D1785

Medication Clinical Drug

Value Set	Medication Clinical Drug - 2.16.840.1.113762.1.4.1010.4
Code System	RxNorm - 2.16.840.1.113883.6.88
Description	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). Valueset Source: https://vsac.nlm.nih.gov/

Medication Drug Class

Value Set	Medication Drug Class - 2.16.840.1.113883.3.88.12.80.18
Description	This identifies the pharmacological drug class, such as Cephalosporins. Shall contain a value descending from the NDF-RT concept types of "Mechanism of Action - N0000000223", "Physiologic Effect - N0000009802" or "Chemical Structure - N0000000002". NUI will be used as the concept code. http://phinvads.cdc.gov/vads/ViewValueSet.action?id=77FDBFB5-A277-DE11-9B52-0015173D1785

Medication Fill Status

Value Set	Medication Fill Status - 2.16.840.1.113883.3.88.12.80.64
Code System	ActStatus - 2.16.840.1.113883.5.14
Version	1
Definition	The HL7 ActStatus has been limited by HITSP. This identifies whether the medication has been fulfilled, such as completed and aborted

Code	Code System	Print Name
aborted	ActStatus	Aborted
completed	ActStatus	Completed

Medication Product Form

Value Set	Medication Product Form - 2.16.840.1.113883.3.88.12.3221.8.11
Code System	NCI Thesaurus - 2.16.840.1.113883.3.26.1.1
Version	1
Definition	This is the physical form of the product as presented to the individual. For example: tablet, capsule, liquid or ointment. NCI concept code for pharmaceutical dosage form: C42636

Medication Route FDA Value Set

Value Set	Medication Route FDA Value Set - 2.16.840.1.113883.3.88.12.3221.8.7
Code System	NCI Thesaurus - 2.16.840.1.113883.3.26.1.1
Version	1
Definition	Route of Administration value set is based upon FDA Drug Registration and Listing Database (FDA Orange Book) which are used in FDA structured product and labelling (SPL).

Mood Code Evn Int

Value Set	MoodCodeEvnInt - 2.16.840.1.113883.11.20.9.18
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Code System	HL7ActMood - 2.16.840.1.113883.5.1001
Version	2014-09-01
Definition	Subset of HL7 ActMood codes, constrained to represent event (EVN) and intent (INT) moods

Code	Code System	Print Name
EVN	HL7ActMood	Event
INT	HL7ActMood	Intent

NUBC UB-04 FL17-Patient Status

Value Set	NUBC UB-04 FL17-Patient Status - 2.16.840.1.113883.3.88.12.80.33
Source	National Uniform Billing Committee (NUBC)
Source URL	www.nubc.org
Definition	See (UB-04/NUBC CURRENT UB DATA SPECIFICATIONS MANUAL) UB-04 FL14.
Description	A code indicating the priority of the admission (e.g., Emergency, Urgent, Elective, et cetera).

No Immunization Reason Value Set

Value Set	No Immunization Reason Value Set - 2.16.840.1.113883.1.11.19717
Code System	ActReason - 2.16.840.1.113883.5.8
Version	1
Source	
Definition	This identifies the reason why the immunization did not occur

Code	Code System	Print Name
IMMUNE	ActReason	Immunity
MEDPREC	ActReason	medical precaution
OSTOCK	ActReason	Out of stock
PATOBJ	ActReason	patient objection
PHILISOP	ActReason	philosophical objection
RELIG	ActReason	religious objection
VACEFF	ActReason	vaccine efficacy concerns
VACSAF	ActReason	vaccine safety concerns

Observation Interpretation (HL7)

Value Set	Observation Interpretation (HL7) - 2.16.840.1.113883.1.11.78
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Version	1
Definition	Observation interpretation concepts that are based upon HL7 V3 vocabulary.

Code	Code System	Print Name
A		Abnormal
HX		above high threshold
LX		below low threshold
B		better
Carrier		Carrier
D		decreased
U		increased
IND		Indeterminate
I		intermediate
MS		moderately susceptible
NEG		Negative
N		Normal
POS		Positive
R		resistent
S		susceptible
VS		Very susceptible
W		worse

Patient Education

Value Set	PatientEducation - 2.16.840.1.113883.11.20.9.34
Code System	SNOMEDCT - 2.16.840.1.113883.6.96

Personal Relationship Role Type

Value Set	Personal Relationship Role Type - 2.16.840.1.113883.1.11.19563
Version	1
Definition	A Personal Relationship records the role of a person in relation to another person. This value set is to be used when recording the relationships between different people who are not necessarily related by family ties, but also includes family relationships

Code	Code System	Print Name
ADOPT		adopted child
AUNT		aunt

Code	Code System	Print Name
CHILD		Child
CHLDINLAW		child in-law
COUSN		cousin
DOMPART		domestic partner
FAMMEMB		Family Member
CHLDFOST		foster child
GRNDCHILD		grandchild
GPARNT		grandparent
GRPRN		Grandparent
GGRPRN		great grandparent
HSIB		half-sibling
MAUNT		MaternalAunt
MCOUSN		MaternalCousin
MGRPRN		MaternalGrandparent
MGGRPRN		MaternalGreatgrandparent
MUNCLE		MaternalUncle
NCHILD		natural child
NPRN		natural parent
NSIB		natural sibling
NBOR		neighbor
NIENEPH		niece/nephew
PRN		Parent
PRNINLAW		parent in-law
PAUNT		PaternalAunt
PCOUSN		PaternalCousin
PGRPRN		PaternalGrandparent
PGGRPRN		PaternalGreatgrandparent
PUNCLE		PaternalUncle
ROOM		Roommate
SIB		Sibling
SIBINLAW		sibling in-law
SIGOTHR		significant other
SPS		spouse
STEP		step child

Code	Code System	Print Name
STPPRN		step parent
STPSIB		step sibling
UNCLE		uncle
FRND		unrelated friend

Plan of Care moodCode (Act/Encounter/Procedure)

Value Set	Plan of Care moodCode (Act/Encounter/Procedure) - 2.16.840.1.113883.11.20.9.23
Code System	HL7ActMood - 2.16.840.1.113883.5.1001

Code	Code System	Print Name
INT	HL7ActMood	Intent
ARQ	HL7ActMood	Appointment Request
PRMS	HL7ActMood	Promise
PRP	HL7ActMood	Proposal
RQO	HL7ActMood	Request

Plan of Care moodCode (Observation)

Value Set	Plan of Care moodCode (Observation) - 2.16.840.1.113883.11.20.9.25
Code System	HL7ActMood - 2.16.840.1.113883.5.1001

Code	Code System	Print Name
INT	HL7ActMood	Intent
GOL	HL7ActMood	Goal
PRMS	HL7ActMood	Promise
PRP	HL7ActMood	Proposal
RQO	HL7ActMood	Request

Plan of Care moodCode (SubstanceAdministration/Supply)

Value Set	Plan of Care moodCode (SubstanceAdministration/Supply) - 2.16.840.1.113883.11.20.9.24
Code System	HL7ActMood - 2.16.840.1.113883.5.1001

Code	Code System	Print Name
INT	HL7ActMood	Intent
PRMS	HL7ActMood	Promise

Code	Code System	Print Name
PRP	HL7ActMood	Proposal
RQO	HL7ActMood	Request

Postal Address Use

Value Set	PostalAddressUse - 2.16.840.1.113883.1.11.10637
Code System	AddressUse - 2.16.840.1.113883.5.1119

Code	Code System	Print Name
BAD	AddressUse	bad address
DIR	AddressUse	direct
H	AddressUse	home address
HP	AddressUse	primary home
HV	AddressUse	vacation home
PHYS	AddressUse	physical visit address
PST	AddressUse	postal address
PUB	AddressUse	public
TMP	AddressUse	temporary
WP	AddressUse	work place

Postal Code Value Set

Value Set	PostalCodeValueSet - 2.16.840.1.113883.3.88.12.80.2
Code System	US Postal Codes - 2.16.840.1.113883.6.231

Problem

Value Set	Problem - 2.16.840.1.113883.3.88.12.3221.7.4
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Source	http://phinvads.cdc.gov/vads/ViewValueSet.action?id=70FDBFB5-A277-DE11-9B52-0015173D1785
Description	Problems and diagnoses. Limited to terms decending from the Clinical Findings (404684003) or Situation with Explicit Context (243796009) hierarchies.

Problem Act Status Code

Value Set	ProblemActStatusCode - 2.16.840.1.113883.11.20.9.19
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Code System	ActStatus - 2.16.840.1.113883.5.14
Version	2011-09-09
Description	This value set indicates the status of the problem concern act.

Code	Code System	Print Name
active	ActStatus	active
suspended	ActStatus	suspended
aborted	ActStatus	aborted
completed	ActStatus	completed

Problem Severity

Value Set	Problem Severity - 2.16.840.1.113883.3.88.12.3221.6.8
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Description	This is a description of the level of the severity of the problem.

Code	Code System	Print Name
255604002	SNOMEDCT	Mild
371923003	SNOMEDCT	Mild to moderate
6736007	SNOMEDCT	Moderate
371924009	SNOMEDCT	Moderate to severe
24484000	SNOMEDCT	Severe
399166001	SNOMEDCT	Fatal

Problem Type

Value Set	Problem Type - 2.16.840.1.113883.3.88.12.3221.7.2
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	2008-12-18
Description	This value set indicates the level of medical judgment used to determine the existence of a problem.

Code	Code System	Print Name
404684003	SNOMEDCT	Finding
409586006	SNOMEDCT	Complaint
282291009	SNOMEDCT	Diagnosis
64572001	SNOMEDCT	Condition
248536006	SNOMEDCT	Functional limitation

Code	Code System	Print Name
418799008	SNOMEDCT	Symptom
55607006	SNOMEDCT	Problem
373930000	SNOMEDCT	Cognitive function finding

Procedure Act Status Code

Value Set	ProcedureActStatusCode - 2.16.840.1.113883.11.20.9.22
Code System	ActStatus - 2.16.840.1.113883.5.14
Definition	A ValueSet of HL7 actStatus codes for use with a procedure activity

Code	Code System	Print Name
completed	ActStatus	Completed
active	ActStatus	Active
aborted	ActStatus	Aborted
cancelled	ActStatus	Cancelled

Procedure Note Document Type Codes

Value Set	ProcedureNoteDocumentTypeCodes - 2.16.840.1.113883.11.20.6.1
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
28570-0	LOINC	
11505-5	LOINC	
18744-3	LOINC	
18745-0	LOINC	
18746-8	LOINC	
18751-8	LOINC	
18753-4	LOINC	
18836-7	LOINC	
28577-5	LOINC	
28625-2	LOINC	
29757-2	LOINC	
33721-2	LOINC	
34121-4	LOINC	
34896-1	LOINC	

Code	Code System	Print Name
34899-5	LOINC	
47048-4	LOINC	
48807-2	LOINC	

Progress Note Document Type Code

Value Set	ProgressNoteDocumentTypeCode - 2.16.840.1.113883.11.20.8.1
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
11506-3	LOINC	
18733-6	LOINC	
18762-5	LOINC	
28569-2	LOINC	
28617-9	LOINC	
34900-1	LOINC	
34904-3	LOINC	
18764-1	LOINC	
28623-7	LOINC	
11507-1	LOINC	
11508-9	LOINC	
11509-7	LOINC	
28627-8	LOINC	
11510-5	LOINC	
28656-7	LOINC	
11512-1	LOINC	
34126-3	LOINC	
15507-7	LOINC	
34129-7	LOINC	
34125-5	LOINC	
34130-5	LOINC	
34131-3	LOINC	
34124-8	LOINC	
34127-1	LOINC	
34128-9	LOINC	

Code	Code System	Print Name
34901-9	LOINC	
34132-1	LOINC	

Race

Value Set	Race - 2.16.840.1.113883.1.11.14914
Code System	Race and Ethnicity - CDC - 2.16.840.1.113883.6.238
Version	1
Definition	A Value Set of codes for Classifying data based upon race. Race is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for race reporting. Any code descending from the Race concept (1000-9) in that terminology may be used in the exchange.

Social History Type Set Definition

Value Set	Social History Type Set Definition - 2.16.840.1.113883.3.88.12.80.60
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	1
Definition	This indicates the type of social history observation

Code	Code System	Print Name
229819007	SNOMEDCT	Tobacco use and exposure
256235009	SNOMEDCT	Exercise
160573003	SNOMEDCT	Alcohol intake
364393001	SNOMEDCT	Nutritional observable
364703007	SNOMEDCT	Employment detail
425400000	SNOMEDCT	Toxic exposure status
363908000	SNOMEDCT	Details of drug misuse behavior
228272008	SNOMEDCT	Health-related behavior
105421008	SNOMEDCT	Educational Achievement

State Value Set

Value Set	StateValueSet - 2.16.840.1.113883.3.88.12.80.1
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Supported File Formats

Value Set	SupportedFileFormats - 2.16.840.1.113883.11.20.7.1
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Version	20100512
Source	HL7
Source URL	http://www.hl7.org
Description	A value set of the file formats supported by the Unstructured Document IG.

Code	Code System	Print Name
application/msword		MSWORD
application/pdf		PDF
text/plain		Plain Text
text/rtf		RTF Text
text/html		HTML
image/gif		GIF Image
image/tiff		TIF Image
image/jpeg		JPEG Image
image/png		PNG Image

Surgical Operation Note Document Type Code

Value Set	SurgicalOperationNoteDocumentTypeCode - 2.16.840.1.113883.11.20.1.1
Code System	LOINC - 2.16.840.1.113883.6.1
Source URL	http://www.loinc.org/

Code	Code System	Print Name
11504-8	LOINC	Provider-unspecified Operation note
34137-0	LOINC	Outpatient Surgical operation note
28583-3	LOINC	Dentist Operation note
28624-5	LOINC	Podiatry Operation note
28573-4	LOINC	Physician, Operation note
34877-1	LOINC	Urology Surgical operation note
34874-8	LOINC	Surgery Surgical operation note
34870-6	LOINC	Plastic surgery Surgical operation note
34868-0	LOINC	Orthopaedic surgery Surgical operation note
34818-5	LOINC	Otolaryngology Surgical operation note

Telecom Use (US Realm Header)

Value Set	Telecom Use (US Realm Header) - 2.16.840.1.113883.11.20.9.20
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Code	Code System	Print Name
HP		primary home
WP		work place
MC		mobile contact
HV		vacation home

UCUM Units of Measure (case sensitive)

Value Set	UCUM Units of Measure (case sensitive) - 2.16.840.1.113883.1.11.12839
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Vaccines Administered Value Set

Value Set	Vaccines Administered Value Set - 2.16.840.1.114222.4.11.934
Code System	Vaccines administered (CVX) - 2.16.840.1.113883.6.59
Version	3
Definition	Vaccine Name Keyword: Clinical Vaccines, Vaccine Names

