CMS 2020 QRDA CMS HQR IG

February 25

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# document

US Realm Header (V3)

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

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2.1

Table 1: US Realm Header (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [US Realm Patient Name (PTN.US.FIELDED)](#U_US_Realm_Patient_Name_PTNUSFIELDED) (required)  [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (optional)  [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (required)  [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (optional)  [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (optional)  [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (required) |

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

Table 2: US Realm Header (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01) | | | | | |
| realmCode | 1..1 | SHALL |  | [1198-16791](#C_1198-16791) | US |
| typeId | 1..1 | SHALL |  | [1198-5361](#C_1198-5361) |  |
| @root | 1..1 | SHALL |  | [1198-5250](#C_1198-5250) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [1198-5251](#C_1198-5251) | POCD\_HD000040 |
| templateId | 1..1 | SHALL |  | [1198-5252](#C_1198-5252) |  |
| @root | 1..1 | SHALL |  | [1198-10036](#C_1198-10036) | 2.16.840.1.113883.10.20.22.1.1 |
| @extension | 1..1 | SHALL |  | [1198-32503](#C_1198-32503) | 2015-08-01 |
| id | 1..1 | SHALL |  | [1198-5363](#C_1198-5363) |  |
| code | 1..1 | SHALL |  | [1198-5253](#C_1198-5253) |  |
| title | 1..1 | SHALL |  | [1198-5254](#C_1198-5254) |  |
| effectiveTime | 1..1 | SHALL |  | [1198-5256](#C_1198-5256) | [US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4](#U_US_Realm_Date_and_Time_DTMUSFIELDED) |
| confidentialityCode | 1..1 | SHALL |  | [1198-5259](#C_1198-5259) | urn:oid:2.16.840.1.113883.1.11.16926 (HL7 BasicConfidentialityKind) |
| languageCode | 1..1 | SHALL |  | [1198-5372](#C_1198-5372) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| setId | 0..1 | MAY |  | [1198-5261](#C_1198-5261) |  |
| versionNumber | 0..1 | MAY |  | [1198-5264](#C_1198-5264) |  |
| recordTarget | 1..\* | SHALL |  | [1198-5266](#C_1198-5266) |  |
| patientRole | 1..1 | SHALL |  | [1198-5267](#C_1198-5267) |  |
| id | 1..\* | SHALL |  | [1198-5268](#C_1198-5268) |  |
| addr | 1..\* | SHALL |  | [1198-5271](#C_1198-5271) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 1..\* | SHALL |  | [1198-5280](#C_1198-5280) |  |
| @use | 0..1 | SHOULD |  | [1198-5375](#C_1198-5375) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| patient | 1..1 | SHALL |  | [1198-5283](#C_1198-5283) |  |
| name | 1..\* | SHALL |  | [1198-5284](#C_1198-5284) | [US Realm Patient Name (PTN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1](#U_US_Realm_Patient_Name_PTNUSFIELDED) |
| administrativeGenderCode | 1..1 | SHALL |  | [1198-6394](#C_1198-6394) | urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3)) |
| birthTime | 1..1 | SHALL |  | [1198-5298](#C_1198-5298) |  |
| maritalStatusCode | 0..1 | SHOULD |  | [1198-5303](#C_1198-5303) | urn:oid:2.16.840.1.113883.1.11.12212 (Marital Status) |
| religiousAffiliationCode | 0..1 | MAY |  | [1198-5317](#C_1198-5317) | urn:oid:2.16.840.1.113883.1.11.19185 (Religious Affiliation) |
| raceCode | 1..1 | SHALL |  | [1198-5322](#C_1198-5322) | urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Race Category Excluding Nulls) |
| sdtc:raceCode | 0..\* | MAY |  | [1198-7263](#C_1198-7263) | urn:oid:2.16.840.1.113883.1.11.14914 (Race) |
| ethnicGroupCode | 1..1 | SHALL |  | [1198-5323](#C_1198-5323) | urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity) |
| sdtc:ethnicGroupCode | 0..\* | MAY |  | [1198-32901](#C_1198-32901) | urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity) |
| guardian | 0..\* | MAY |  | [1198-5325](#C_1198-5325) |  |
| code | 0..1 | SHOULD |  | [1198-5326](#C_1198-5326) | urn:oid:2.16.840.1.113883.11.20.12.1 (Personal And Legal Relationship Role Type) |
| addr | 0..\* | SHOULD |  | [1198-5359](#C_1198-5359) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 0..\* | SHOULD |  | [1198-5382](#C_1198-5382) |  |
| @use | 0..1 | SHOULD |  | [1198-7993](#C_1198-7993) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| guardianPerson | 1..1 | SHALL |  | [1198-5385](#C_1198-5385) |  |
| name | 1..\* | SHALL |  | [1198-5386](#C_1198-5386) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| birthplace | 0..1 | MAY |  | [1198-5395](#C_1198-5395) |  |
| place | 1..1 | SHALL |  | [1198-5396](#C_1198-5396) |  |
| addr | 1..1 | SHALL |  | [1198-5397](#C_1198-5397) |  |
| country | 0..1 | SHOULD |  | [1198-5404](#C_1198-5404) | urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country) |
| languageCommunication | 0..\* | SHOULD |  | [1198-5406](#C_1198-5406) |  |
| languageCode | 1..1 | SHALL |  | [1198-5407](#C_1198-5407) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| modeCode | 0..1 | MAY |  | [1198-5409](#C_1198-5409) | urn:oid:2.16.840.1.113883.1.11.12249 (LanguageAbilityMode) |
| proficiencyLevelCode | 0..1 | SHOULD |  | [1198-9965](#C_1198-9965) | urn:oid:2.16.840.1.113883.1.11.12199 (LanguageAbilityProficiency) |
| preferenceInd | 0..1 | SHOULD |  | [1198-5414](#C_1198-5414) |  |
| providerOrganization | 0..1 | MAY |  | [1198-5416](#C_1198-5416) |  |
| id | 1..\* | SHALL |  | [1198-5417](#C_1198-5417) |  |
| @root | 0..1 | SHOULD |  | [1198-16820](#C_1198-16820) | 2.16.840.1.113883.4.6 |
| name | 1..\* | SHALL |  | [1198-5419](#C_1198-5419) |  |
| telecom | 1..\* | SHALL |  | [1198-5420](#C_1198-5420) |  |
| @use | 0..1 | SHOULD |  | [1198-7994](#C_1198-7994) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| addr | 1..\* | SHALL |  | [1198-5422](#C_1198-5422) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| author | 1..\* | SHALL |  | [1198-5444](#C_1198-5444) |  |
| time | 1..1 | SHALL |  | [1198-5445](#C_1198-5445) | [US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4](#U_US_Realm_Date_and_Time_DTMUSFIELDED) |
| assignedAuthor | 1..1 | SHALL |  | [1198-5448](#C_1198-5448) |  |
| id | 1..\* | SHALL |  | [1198-5449](#C_1198-5449) |  |
| id | 0..1 | SHOULD |  | [1198-32882](#C_1198-32882) |  |
| @nullFlavor | 0..1 | MAY |  | [1198-32883](#C_1198-32883) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @root | 1..1 | SHALL |  | [1198-32884](#C_1198-32884) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | SHOULD |  | [1198-32885](#C_1198-32885) |  |
| code | 0..1 | SHOULD |  | [1198-16787](#C_1198-16787) |  |
| @code | 1..1 | SHALL |  | [1198-16788](#C_1198-16788) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| addr | 1..\* | SHALL |  | [1198-5452](#C_1198-5452) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 1..\* | SHALL |  | [1198-5428](#C_1198-5428) |  |
| @use | 0..1 | SHOULD |  | [1198-7995](#C_1198-7995) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 0..1 | SHOULD |  | [1198-5430](#C_1198-5430) |  |
| name | 1..\* | SHALL |  | [1198-16789](#C_1198-16789) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| assignedAuthoringDevice | 0..1 | SHOULD |  | [1198-16783](#C_1198-16783) |  |
| manufacturerModelName | 1..1 | SHALL |  | [1198-16784](#C_1198-16784) |  |
| softwareName | 1..1 | SHALL |  | [1198-16785](#C_1198-16785) |  |
| dataEnterer | 0..1 | MAY |  | [1198-5441](#C_1198-5441) |  |
| assignedEntity | 1..1 | SHALL |  | [1198-5442](#C_1198-5442) |  |
| id | 1..\* | SHALL |  | [1198-5443](#C_1198-5443) |  |
| @root | 0..1 | SHOULD |  | [1198-16821](#C_1198-16821) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [1198-32173](#C_1198-32173) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| addr | 1..\* | SHALL |  | [1198-5460](#C_1198-5460) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 1..\* | SHALL |  | [1198-5466](#C_1198-5466) |  |
| @use | 0..1 | SHOULD |  | [1198-7996](#C_1198-7996) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [1198-5469](#C_1198-5469) |  |
| name | 1..\* | SHALL |  | [1198-5470](#C_1198-5470) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| informant | 0..\* | MAY |  | [1198-8001](#C_1198-8001) |  |
| assignedEntity | 1..1 | SHALL |  | [1198-8002](#C_1198-8002) |  |
| id | 1..\* | SHALL |  | [1198-9945](#C_1198-9945) |  |
| code | 0..1 | MAY |  | [1198-32174](#C_1198-32174) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| addr | 1..\* | SHALL |  | [1198-8220](#C_1198-8220) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| assignedPerson | 1..1 | SHALL |  | [1198-8221](#C_1198-8221) |  |
| name | 1..\* | SHALL |  | [1198-8222](#C_1198-8222) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| informant | 0..\* | MAY |  | [1198-31355](#C_1198-31355) |  |
| relatedEntity | 1..1 | SHALL |  | [1198-31356](#C_1198-31356) |  |
| custodian | 1..1 | SHALL |  | [1198-5519](#C_1198-5519) |  |
| assignedCustodian | 1..1 | SHALL |  | [1198-5520](#C_1198-5520) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [1198-5521](#C_1198-5521) |  |
| id | 1..\* | SHALL |  | [1198-5522](#C_1198-5522) |  |
| @root | 0..1 | SHOULD |  | [1198-16822](#C_1198-16822) | 2.16.840.1.113883.4.6 |
| name | 1..1 | SHALL |  | [1198-5524](#C_1198-5524) |  |
| telecom | 1..1 | SHALL |  | [1198-5525](#C_1198-5525) |  |
| @use | 0..1 | SHOULD |  | [1198-7998](#C_1198-7998) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| addr | 1..1 | SHALL |  | [1198-5559](#C_1198-5559) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| informationRecipient | 0..\* | MAY |  | [1198-5565](#C_1198-5565) |  |
| intendedRecipient | 1..1 | SHALL |  | [1198-5566](#C_1198-5566) |  |
| id | 0..\* | MAY |  | [1198-32399](#C_1198-32399) |  |
| informationRecipient | 0..1 | MAY |  | [1198-5567](#C_1198-5567) |  |
| name | 1..\* | SHALL |  | [1198-5568](#C_1198-5568) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| receivedOrganization | 0..1 | MAY |  | [1198-5577](#C_1198-5577) |  |
| name | 1..1 | SHALL |  | [1198-5578](#C_1198-5578) |  |
| legalAuthenticator | 0..1 | SHOULD |  | [1198-5579](#C_1198-5579) |  |
| time | 1..1 | SHALL |  | [1198-5580](#C_1198-5580) | [US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4](#U_US_Realm_Date_and_Time_DTMUSFIELDED) |
| signatureCode | 1..1 | SHALL |  | [1198-5583](#C_1198-5583) |  |
| @code | 1..1 | SHALL |  | [1198-5584](#C_1198-5584) | urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S |
| sdtc:signatureText | 0..1 | MAY |  | [1198-30810](#C_1198-30810) |  |
| assignedEntity | 1..1 | SHALL |  | [1198-5585](#C_1198-5585) |  |
| id | 1..\* | SHALL |  | [1198-5586](#C_1198-5586) |  |
| @root | 0..1 | MAY |  | [1198-16823](#C_1198-16823) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [1198-17000](#C_1198-17000) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| addr | 1..\* | SHALL |  | [1198-5589](#C_1198-5589) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 1..\* | SHALL |  | [1198-5595](#C_1198-5595) |  |
| @use | 0..1 | SHOULD |  | [1198-7999](#C_1198-7999) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [1198-5597](#C_1198-5597) |  |
| name | 1..\* | SHALL |  | [1198-5598](#C_1198-5598) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| authenticator | 0..\* | MAY |  | [1198-5607](#C_1198-5607) |  |
| time | 1..1 | SHALL |  | [1198-5608](#C_1198-5608) | [US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4](#U_US_Realm_Date_and_Time_DTMUSFIELDED) |
| signatureCode | 1..1 | SHALL |  | [1198-5610](#C_1198-5610) |  |
| @code | 1..1 | SHALL |  | [1198-5611](#C_1198-5611) | urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S |
| sdtc:signatureText | 0..1 | MAY |  | [1198-30811](#C_1198-30811) |  |
| assignedEntity | 1..1 | SHALL |  | [1198-5612](#C_1198-5612) |  |
| id | 1..\* | SHALL |  | [1198-5613](#C_1198-5613) |  |
| @root | 0..1 | SHOULD |  | [1198-16824](#C_1198-16824) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [1198-16825](#C_1198-16825) |  |
| @code | 0..1 | MAY |  | [1198-16826](#C_1198-16826) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| addr | 1..\* | SHALL |  | [1198-5616](#C_1198-5616) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| telecom | 1..\* | SHALL |  | [1198-5622](#C_1198-5622) |  |
| @use | 0..1 | SHOULD |  | [1198-8000](#C_1198-8000) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [1198-5624](#C_1198-5624) |  |
| name | 1..\* | SHALL |  | [1198-5625](#C_1198-5625) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| participant | 0..\* | MAY |  | [1198-10003](#C_1198-10003) |  |
| time | 0..1 | MAY |  | [1198-10004](#C_1198-10004) |  |
| inFulfillmentOf | 0..\* | MAY |  | [1198-9952](#C_1198-9952) |  |
| order | 1..1 | SHALL |  | [1198-9953](#C_1198-9953) |  |
| id | 1..\* | SHALL |  | [1198-9954](#C_1198-9954) |  |
| documentationOf | 0..\* | MAY |  | [1198-14835](#C_1198-14835) |  |
| serviceEvent | 1..1 | SHALL |  | [1198-14836](#C_1198-14836) |  |
| effectiveTime | 1..1 | SHALL |  | [1198-14837](#C_1198-14837) |  |
| low | 1..1 | SHALL |  | [1198-14838](#C_1198-14838) |  |
| performer | 0..\* | SHOULD |  | [1198-14839](#C_1198-14839) |  |
| @typeCode | 1..1 | SHALL |  | [1198-14840](#C_1198-14840) | urn:oid:2.16.840.1.113883.1.11.19601 (x\_ServiceEventPerformer) |
| functionCode | 0..1 | MAY |  | [1198-16818](#C_1198-16818) |  |
| @code | 0..1 | SHOULD |  | [1198-32889](#C_1198-32889) | urn:oid:2.16.840.1.113883.1.11.10267 (ParticipationFunction) |
| assignedEntity | 1..1 | SHALL |  | [1198-14841](#C_1198-14841) |  |
| id | 1..\* | SHALL |  | [1198-14846](#C_1198-14846) |  |
| @root | 0..1 | SHOULD |  | [1198-14847](#C_1198-14847) | 2.16.840.1.113883.4.6 |
| code | 0..1 | SHOULD |  | [1198-14842](#C_1198-14842) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| authorization | 0..\* | MAY |  | [1198-16792](#C_1198-16792) |  |
| consent | 1..1 | SHALL |  | [1198-16793](#C_1198-16793) |  |
| id | 0..\* | MAY |  | [1198-16794](#C_1198-16794) |  |
| code | 0..1 | MAY |  | [1198-16795](#C_1198-16795) |  |
| statusCode | 1..1 | SHALL |  | [1198-16797](#C_1198-16797) |  |
| @code | 1..1 | SHALL |  | [1198-16798](#C_1198-16798) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = completed |
| componentOf | 0..1 | MAY |  | [1198-9955](#C_1198-9955) |  |
| encompassingEncounter | 1..1 | SHALL |  | [1198-9956](#C_1198-9956) |  |
| id | 1..\* | SHALL |  | [1198-9959](#C_1198-9959) |  |
| effectiveTime | 1..1 | SHALL |  | [1198-9958](#C_1198-9958) |  |

Properties

realmCode

1. SHALL contain exactly one [1..1] realmCode="US" (CONF:1198-16791).
2. SHALL contain exactly one [1..1] typeId (CONF:1198-5361).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:1198-5250).
   2. This typeId SHALL contain exactly one [1..1] @extension="POCD\_HD000040" (CONF:1198-5251).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-5252) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.1" (CONF:1198-10036).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32503).
4. SHALL contain exactly one [1..1] id (CONF:1198-5363).
   1. This id SHALL be a globally unique identifier for the document (CONF:1198-9991).
5. SHALL contain exactly one [1..1] code (CONF:1198-5253).
   1. This code SHALL specify the particular kind of document (e.g., History and Physical, Discharge Summary, Progress Note) (CONF:1198-9992).
   2. This code SHALL be drawn from the LOINC document type ontology (LOINC codes where SCALE = DOC) (CONF:1198-32948).
6. SHALL contain exactly one [1..1] title (CONF:1198-5254).  
   Note: The title can either be a locally defined name or the displayName corresponding to clinicalDocument/code
7. SHALL contain exactly one [1..1] [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
8. SHALL contain exactly one [1..1] confidentialityCode, which SHOULD be selected from ValueSet HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926 STATIC (CONF:1198-5259).
9. SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:1198-5372).
10. MAY contain zero or one [0..1] setId (CONF:1198-5261).
    1. If setId is present versionNumber SHALL be present (CONF:1198-6380).
11. MAY contain zero or one [0..1] versionNumber (CONF:1198-5264).
    1. If versionNumber is present setId SHALL be present (CONF:1198-6387).

recordTarget

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

1. SHALL contain at least one [1..\*] recordTarget (CONF:1198-5266).
   1. Such recordTargets SHALL contain exactly one [1..1] patientRole (CONF:1198-5267).
      1. This patientRole SHALL contain at least one [1..\*] id (CONF:1198-5268).
      2. This patientRole SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271).
      3. This patientRole SHALL contain at least one [1..\*] telecom (CONF:1198-5280).
         1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-5375).
      4. This patientRole SHALL contain exactly one [1..1] patient (CONF:1198-5283).
         1. This patient SHALL contain at least one [1..\*] [US Realm Patient Name (PTN.US.FIELDED)](#U_US_Realm_Patient_Name_PTNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1) (CONF:1198-5284).
         2. This patient SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:1198-6394).
         3. This patient SHALL contain exactly one [1..1] birthTime (CONF:1198-5298).
            1. SHALL be precise to year (CONF:1198-5299).
            2. SHOULD be precise to day (CONF:1198-5300).

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

* + - * 1. MAY be precise to the minute (CONF:1198-32418).
      1. This patient SHOULD contain zero or one [0..1] maritalStatusCode, which SHALL be selected from ValueSet Marital Status urn:oid:2.16.840.1.113883.1.11.12212 DYNAMIC (CONF:1198-5303).
      2. This patient MAY contain zero or one [0..1] religiousAffiliationCode, which SHALL be selected from ValueSet Religious Affiliation urn:oid:2.16.840.1.113883.1.11.19185 DYNAMIC (CONF:1198-5317).
      3. This patient SHALL contain exactly one [1..1] raceCode, which SHALL be selected from ValueSet Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3 DYNAMIC (CONF:1198-5322).
      4. This patient MAY contain zero or more [0..\*] sdtc:raceCode, which SHALL be selected from ValueSet Race urn:oid:2.16.840.1.113883.1.11.14914 DYNAMIC (CONF:1198-7263).  
         Note: The sdtc:raceCode is only used to record additional values when the patient has indicated multiple races or additional race detail beyond the five categories required for Meaningful Use Stage 2. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the additional raceCode elements.
         1. If sdtc:raceCode is present, then the patient SHALL contain [1..1] raceCode (CONF:1198-31347).
      5. This patient SHALL contain exactly one [1..1] ethnicGroupCode, which SHALL be selected from ValueSet Ethnicity urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC (CONF:1198-5323).
      6. This patient MAY contain zero or more [0..\*] sdtc:ethnicGroupCode, which SHALL be selected from ValueSet Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877 DYNAMIC (CONF:1198-32901).
      7. This patient MAY contain zero or more [0..\*] guardian (CONF:1198-5325).
         1. The guardian, if present, SHOULD contain zero or one [0..1] code, which SHALL be selected from ValueSet Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1 DYNAMIC (CONF:1198-5326).
         2. The guardian, if present, SHOULD contain zero or more [0..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5359).
         3. The guardian, if present, SHOULD contain zero or more [0..\*] telecom (CONF:1198-5382).

The telecom, if present, SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7993).

* + - * 1. The guardian, if present, SHALL contain exactly one [1..1] guardianPerson (CONF:1198-5385).

This guardianPerson SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5386).

* + - 1. This patient MAY contain zero or one [0..1] birthplace (CONF:1198-5395).
         1. The birthplace, if present, SHALL contain exactly one [1..1] place (CONF:1198-5396).

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

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

If country is US, this addr SHALL contain exactly one [1..1] state, which SHALL be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 *DYNAMIC* (CONF:1198-5402).  
Note: A nullFlavor of ' UNK' may be used if the state is unknown.

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

* + - 1. This patient SHOULD contain zero or more [0..\*] languageCommunication (CONF:1198-5406).
         1. The languageCommunication, if present, SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:1198-5407).
         2. The languageCommunication, if present, MAY contain zero or one [0..1] modeCode, which SHALL be selected from ValueSet LanguageAbilityMode urn:oid:2.16.840.1.113883.1.11.12249 DYNAMIC (CONF:1198-5409).
         3. The languageCommunication, if present, SHOULD contain zero or one [0..1] proficiencyLevelCode, which SHALL be selected from ValueSet LanguageAbilityProficiency urn:oid:2.16.840.1.113883.1.11.12199 DYNAMIC (CONF:1198-9965).
         4. The languageCommunication, if present, SHOULD contain zero or one [0..1] preferenceInd (CONF:1198-5414).
    1. This patientRole MAY contain zero or one [0..1] providerOrganization (CONF:1198-5416).
       1. The providerOrganization, if present, SHALL contain at least one [1..\*] id (CONF:1198-5417).
          1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16820).
       2. The providerOrganization, if present, SHALL contain at least one [1..\*] name (CONF:1198-5419).
       3. The providerOrganization, if present, SHALL contain at least one [1..\*] telecom (CONF:1198-5420).
          1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7994).
       4. The providerOrganization, if present, SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5422).

author

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

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

If this assignedAuthor is an assignedPerson

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

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

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

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

* + 1. This assignedAuthor SHOULD contain zero or one [0..1] code (CONF:1198-16787).
       1. The code, if present, SHALL contain exactly one [1..1] @code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-16788).
    2. This assignedAuthor SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5452).
    3. This assignedAuthor SHALL contain at least one [1..\*] telecom (CONF:1198-5428).
       1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7995).
    4. This assignedAuthor SHOULD contain zero or one [0..1] assignedPerson (CONF:1198-5430).
       1. The assignedPerson, if present, SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-16789).
    5. This assignedAuthor SHOULD contain zero or one [0..1] assignedAuthoringDevice (CONF:1198-16783).
       1. The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] manufacturerModelName (CONF:1198-16784).
       2. The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] softwareName (CONF:1198-16785).
    6. There SHALL be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:1198-16790).

dataEnterer

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

1. MAY contain zero or one [0..1] dataEnterer (CONF:1198-5441).
   1. The dataEnterer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1198-5442).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1198-5443).
         1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16821).
      2. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-32173).
      3. This assignedEntity SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5460).
      4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1198-5466).
         1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7996).
      5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:1198-5469).
         1. This assignedPerson SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5470).

informant

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

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

informant

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

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

custodian

The custodian element represents the organization that is in charge of maintaining and is entrusted with the care of the document.  
There is only one custodian per CDA document. Allowing that a CDA document may not represent the original form of the authenticated document, the custodian represents the steward of the original source document. The custodian may be the document originator, a health information exchange, or other responsible party.

1. SHALL contain exactly one [1..1] custodian (CONF:1198-5519).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:1198-5520).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:1198-5521).
         1. This representedCustodianOrganization SHALL contain at least one [1..\*] id (CONF:1198-5522).
            1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16822).
         2. This representedCustodianOrganization SHALL contain exactly one [1..1] name (CONF:1198-5524).
         3. This representedCustodianOrganization SHALL contain exactly one [1..1] telecom (CONF:1198-5525).
            1. This telecom SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7998).
         4. This representedCustodianOrganization SHALL contain exactly one [1..1] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5559).

informationRecipient

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

1. MAY contain zero or more [0..\*] informationRecipient (CONF:1198-5565).
   1. The informationRecipient, if present, SHALL contain exactly one [1..1] intendedRecipient (CONF:1198-5566).
      1. This intendedRecipient MAY contain zero or more [0..\*] id (CONF:1198-32399).
      2. This intendedRecipient MAY contain zero or one [0..1] informationRecipient (CONF:1198-5567).
         1. The informationRecipient, if present, SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5568).
      3. This intendedRecipient MAY contain zero or one [0..1] receivedOrganization (CONF:1198-5577).
         1. The receivedOrganization, if present, SHALL contain exactly one [1..1] name (CONF:1198-5578).

legalAuthenticator

The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated.  
The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication.  
All clinical documents have the potential for legal authentication, given the appropriate credentials.  
Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system.  
Note that the legal authenticator, if present, must be a person.

1. SHOULD contain zero or one [0..1] legalAuthenticator (CONF:1198-5579).
   1. The legalAuthenticator, if present, SHALL contain exactly one [1..1] [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5580).
   2. The legalAuthenticator, if present, SHALL contain exactly one [1..1] signatureCode (CONF:1198-5583).
      1. This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:1198-5584).

sdtc:signatureText

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

* 1. The legalAuthenticator, if present, MAY contain zero or one [0..1] sdtc:signatureText (CONF:1198-30810).  
     Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:  
     1) Electronic signature: this attribute can represent virtually any electronic signature scheme.  
     2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
  2. The legalAuthenticator, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1198-5585).
     1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1198-5586).
        1. Such ids MAY contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16823).
     2. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-17000).
     3. This assignedEntity SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5589).
     4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1198-5595).
        1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-7999).
     5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:1198-5597).
        1. This assignedPerson SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5598).

authenticator

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

1. MAY contain zero or more [0..\*] authenticator (CONF:1198-5607) such that it
   1. SHALL contain exactly one [1..1] [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5608).
   2. SHALL contain exactly one [1..1] signatureCode (CONF:1198-5610).
      1. This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:1198-5611).

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

* 1. MAY contain zero or one [0..1] sdtc:signatureText (CONF:1198-30811).  
     Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:  
     1) Electronic signature: this attribute can represent virtually any electronic signature scheme.  
     2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
  2. SHALL contain exactly one [1..1] assignedEntity (CONF:1198-5612).
     1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1198-5613).
        1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier  (CONF:1198-16824).
     2. This assignedEntity MAY contain zero or one [0..1] code (CONF:1198-16825).
        1. The code, if present, MAY contain zero or one [0..1] @code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 STATIC (CONF:1198-16826).
     3. This assignedEntity SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5616).
     4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1198-5622).
        1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-8000).
     5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:1198-5624).
        1. This assignedPerson SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5625).

participant

The participant element identifies supporting entities, including parents, relatives, caregivers, insurance policyholders, guarantors, and others related in some way to the patient.  
A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is playing multiple roles would be recorded in multiple participants (e.g., emergency contact and next-of-kin).

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

inFulfillmentOf

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

1. MAY contain zero or more [0..\*] inFulfillmentOf (CONF:1198-9952).
   1. The inFulfillmentOf, if present, SHALL contain exactly one [1..1] order (CONF:1198-9953).
      1. This order SHALL contain at least one [1..\*] id (CONF:1198-9954).

documentationOf

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

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

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

performer

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

* + 1. This serviceEvent SHOULD contain zero or more [0..\*] performer (CONF:1198-14839).
       1. The performer, if present, SHALL contain exactly one [1..1] @typeCode, which SHALL be selected from ValueSet x\_ServiceEventPerformer urn:oid:2.16.840.1.113883.1.11.19601 STATIC (CONF:1198-14840).
       2. The performer, if present, MAY contain zero or one [0..1] functionCode (CONF:1198-16818).
          1. The functionCode, if present, SHOULD contain zero or one [0..1] @code, which SHOULD be selected from ValueSet ParticipationFunction urn:oid:2.16.840.1.113883.1.11.10267 STATIC (CONF:1198-32889).
       3. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1198-14841).
          1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1198-14846).

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

* + - * 1. This assignedEntity SHOULD contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-14842).

authorization

The authorization element represents information about the patient’s consent.  
The type of consent is conveyed in consent/code. Consents in the header have been finalized (consent/statusCode must equal Completed) and should be on file. This specification does not address how 'Privacy Consent' is represented, but does not preclude the inclusion of ‘Privacy Consent’.  
The authorization consent is used for referring to consents that are documented elsewhere in the EHR or medical record for a health condition and/or treatment that is described in the CDA document.

1. MAY contain zero or more [0..\*] authorization (CONF:1198-16792) such that it
   1. SHALL contain exactly one [1..1] consent (CONF:1198-16793).
      1. This consent MAY contain zero or more [0..\*] id (CONF:1198-16794).
      2. This consent MAY contain zero or one [0..1] code (CONF:1198-16795).  
         Note: The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.
      3. This consent SHALL contain exactly one [1..1] statusCode (CONF:1198-16797).
         1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-16798).

componentOf

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

1. MAY contain zero or one [0..1] componentOf (CONF:1198-9955).
   1. The componentOf, if present, SHALL contain exactly one [1..1] encompassingEncounter (CONF:1198-9956).
      1. This encompassingEncounter SHALL contain at least one [1..\*] id (CONF:1198-9959).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:1198-9958).

Figure 1: US Realm Header (V3) Example

<ClinicalDocument>

<realmCode code="US" />

<typeId extension="POCD\_HD000040" root="2.16.840.1.113883.1.3" />

<!-- CCD template -->

<templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2015-08-01" />

<!-- Globally unique identifier for the document -->

<id extension="TT988" root="2.16.840.1.113883.19.5.99999.1" />

<code code="34133-9" displayName="Summarization of Episode Note" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<!-- Title of the document -->

<title>Patient Chart Summary</title>

<effectiveTime value="201209151030-0800" />

<confidentialityCode code="N" displayName="normal" codeSystem="2.16.840.1.113883.5.25" codeSystemName="Confidentiality" />

<languageCode code="en-US" />

<setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />

<!-- Version of the document -->

<versionNumber value="1" />

. . .

</ClinicalDocument>

Figure 2: recordTarget Example

<recordTarget>

<patientRole>

<id extension="444-22-2222" root="2.16.840.1.113883.4.1" />

<!-- Example Social Security Number using the actual SSN OID. -->

<addr use="HP">

<!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

<!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->

</addr>

<telecom value="tel:+1(555)555-2003" use="HP" />

<!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->

<patient>

<!-- The first name element represents what the patient is known as -->

<name use="L">

<given>Eve</given>

<!-- The "SP" is "Spouse" from

HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->

<family qualifier="SP">Betterhalf</family>

</name>

<!-- The second name element represents another name

associated with the patient -->

<name>

<given>Eve</given>

<!-- The "BR" is "Birth" from

HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->

<family qualifier="BR">Everywoman</family>

</name>

<administrativeGenderCode code="F" displayName="Female" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />

<!-- Date of birth need only be precise to the day -->

<birthTime value="19750501" />

<maritalStatusCode code="M" displayName="Married" codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode" />

<religiousAffiliationCode code="1013" displayName="Christian (non-Catholic, non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious Affiliation" />

<!-- CDC Race and Ethnicity code set contains the five minimum

race and ethnicity categories defined by OMB Standards -->

<raceCode code="2106-3" displayName="White" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<!-- The raceCode extension is only used if raceCode is valued -->

<sdtc:raceCode code="2076-8" displayName="Hawaiian or Other Pacific Islander" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<guardian>

<code code="POWATT" displayName="Power of Attorney" codeSystem="2.16.840.1.113883.1.11.19830" codeSystemName="ResponsibleParty" />

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<guardianPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</guardianPerson>

</guardian>

<birthplace>

<place>

<addr>

<streetAddressLine>4444 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

</place>

</birthplace>

<languageCommunication>

<languageCode code="eng" />

<!-- "eng" is ISO 639-2 alpha-3 code for "English" -->

<modeCode code="ESP" displayName="Expressed spoken" codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode" />

<proficiencyLevelCode code="G" displayName="Good" codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency" />

<!-- Patient's preferred language -->

<preferenceInd value="true" />

</languageCommunication>

</patient>

<providerOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1007 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</providerOrganization>

</patientRole>

</recordTarget>

Figure 3: author Example

<author>

<time value="201209151030-0800" />

<assignedAuthor>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="163W00000X" displayName="Registered nurse" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedAuthor>

</author>

Figure 4: dateEnterer Example

<dataEnterer>

<assignedEntity>

<id extension="333777777" root="2.16.840.1.113883.4.6" />

<addr>

<streetAddressLine>1007 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1050" />

<assignedPerson>

<name>

<given>Ellen</given>

<family>Enter</family>

</name>

</assignedPerson>

</assignedEntity>

</dataEnterer>

Figure 5: Assigned Health Care Provider informant Example

<informant>

<assignedEntity>

<id extension="888888888" root="1.1.1.1.1.1.1.3" />

<addr>

<streetAddressLine>1007 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1003" />

<assignedPerson>

<name>

<given>Harold</given>

<family>Hippocrates</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<name>The DoctorsApart Physician Group</name>

</representedOrganization>

</assignedEntity>

</informant>

Figure 6: Personal Relation informant Example

<informant>

<relatedEntity classCode="PRS">

<!-- classCode "PRS" represents a person with personal relationship with the patient -->

<code code="SPS" displayName="SPOUSE" codeSystem="2.16.840.1.113883.1.11.19563" codeSystemName="Personal Relationship Role Type Value Set" />

<relatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</relatedPerson>

</relatedEntity>

</informant>

Figure 7: custodian Example

<custodian>

<assignedCustodian>

<representedCustodianOrganization>

<id extension="321CX" root="1.1.1.1.1.1.1.1.3" />

<name>Good Health HIE</name>

<telecom use="WP" value="tel:+1(555)555-1009" />

<addr use="WP">

<streetAddressLine>1009 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedCustodianOrganization>

</assignedCustodian>

</custodian>

Figure 8: informationRecipient Example

<informationRecipient>

<intendedRecipient>

<informationRecipient>

<name>

<given>Sara</given>

<family>Specialize</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</informationRecipient>

<receivedOrganization>

<name>The DoctorsApart Physician Group</name>

</receivedOrganization>

</intendedRecipient>

</informationRecipient>

Figure 9: Digital signature Example

<sdtc:signatureText mediaType="text/xml" representation="B64">omSJUEdmde9j44zmMiromSJUEdmde9j44zmMirdMDSsWdIJdksIJR3373jeu83

6edjzMMIjdMDSsWdIJdksIJR3373jeu83MNYD83jmMdomSJUEdmde9j44zmMir

... MNYD83jmMdomSJUEdmde9j44zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83

4zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83==</sdtc:signatureText>

Figure 10: legalAuthenticator Example

<legalAuthenticator>

<time value="20120915223615-0800" />

<signatureCode code="S" />

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedEntity>

</legalAuthenticator>

Figure 11: authenticator Example

<authenticator>

<time value="201209151030-0800" />

<signatureCode code="S" />

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedEntity>

</authenticator>

Figure 12: Supporting Person participant Example

<participant typeCode="IND">

<!-- typeCode "IND" represents an individual -->

<associatedEntity classCode="NOK">

<!-- classCode "NOK" represents the patient's next of kin-->

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<associatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</associatedPerson>

</associatedEntity>

</participant>

<!-- Entities playing multiple roles are recorded in multiple participants -->

<participant typeCode="IND">

<associatedEntity classCode="ECON">

<!-- classCode "ECON" represents an emergency contact -->

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<associatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</associatedPerson>

</associatedEntity>

</participant>

Figure 13: inFulfillmentOf Example

<inFulfillmentOf typeCode="FLFS">

<order classCode="ACT" moodCode="RQO">

<id root="2.16.840.1.113883.6.96" extension="1298989898" />

<code code="388975008" displayName="Weight Reduction Consultation" codeSystem="2.16.840.1.113883.6.96" codeSystemName="CPT4" />

</order>

</inFulfillmentOf>

Figure 14: performer Example

<performer typeCode="PRF">

<functionCode code="PCP"

displayName="Primary Care Provider"

codeSystem="2.16.840.1.113883.5.88"

codeSystemName="ParticipationFunction">

<originalText>Primary Care Provider</originalText>

</functionCode>

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1004 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

Figure 15: documentationOf Example

<documentationOf>

<serviceEvent classCode="PCPR">

<!-- The effectiveTime reflects the provision of care summarized in the document.

In this scenario, the provision of care summarized is the lifetime for the patient -->

<effectiveTime>

<low value="19750501" />

<!-- The low value represents when the summarized provision of care began.

In this scenario, the patient's date of birth -->

<high value="20120915" />

<!-- The high value represents when the summarized provision of care being ended.

In this scenario, when chart summary was created -->

</effectiveTime>

<performer typeCode="PRF">

<functionCode code="PCP"

displayName="Primary Care Provider"

codeSystem="2.16.840.1.113883.5.88"

codeSystemName="ParticipationFunction">

<originalText>Primary Care Provider</originalText>

</functionCode>

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1004 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

</serviceEvent>

</documentationOf>

Figure 16: authorization Example

<authorization typeCode="AUTH">

<consent classCode="CONS" moodCode="EVN">

<id root="629deb70-5306-11df-9879-0800200c9a66" />

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="64293-4" displayName="Procedure consent" />

<statusCode code="completed" />

</consent>

</authorization>

QRDA Category I Framework (V4)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 3: QRDA Category I Framework (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Reporting Parameters Section](#S_Reporting_Parameters_Section) (required)  [Patient Data Section](#S_Patient_Data_Section) (required)  [Measure Section](#S_Measure_Section) (required) |

This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category I report framework. Document-level templates describe the purpose and rules for constructing a conforming CDA document. Document templates include constraints on the CDA header and identify contained section-level templates.  
The document-level template contains the following information:  
• Description and explanatory narrative  
• Template metadata (e.g., templateId, etc.)  
• Header constraints including a reference to the US Realm Clinical Document Header template and additional constraints specific to each document type  
• Required section-level templates

Table 4: QRDA Category I Framework (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3343-12910](#C_3343-12910) |  |
| @root | 1..1 | SHALL |  | [3343-14613](#C_3343-14613) | 2.16.840.1.113883.10.20.24.1.1 |
| @extension | 1..1 | SHALL |  | [3343-27005](#C_3343-27005) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-12911](#C_3343-12911) |  |
| @code | 1..1 | SHALL |  | [3343-28137](#C_3343-28137) | 55182-0 |
| @codeSystem | 1..1 | SHALL |  | [3343-28138](#C_3343-28138) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [3343-12912](#C_3343-12912) |  |
| recordTarget | 1..1 | SHALL |  | [3343-12913](#C_3343-12913) |  |
| patientRole | 1..1 | SHALL |  | [3343-28387](#C_3343-28387) |  |
| patient | 0..1 | MAY |  | [3343-28388](#C_3343-28388) |  |
| sdtc:ethnicGroupCode | 0..\* | MAY |  | [3343-28389](#C_3343-28389) | urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity) |
| custodian | 1..1 | SHALL |  | [3343-12914](#C_3343-12914) |  |
| assignedCustodian | 1..1 | SHALL |  | [3343-12915](#C_3343-12915) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [3343-12916](#C_3343-12916) |  |
| component | 1..1 | SHALL |  | [3343-12918](#C_3343-12918) |  |
| structuredBody | 1..1 | SHALL |  | [3343-12919](#C_3343-12919) |  |
| component | 1..1 | SHALL |  | [3343-12920](#C_3343-12920) |  |
| section | 1..1 | SHALL |  | [3343-17078](#C_3343-17078) | [Measure Section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2](#S_Measure_Section) |
| component | 1..1 | SHALL |  | [3343-12923](#C_3343-12923) |  |
| section | 1..1 | SHALL |  | [3343-17079](#C_3343-17079) | [Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1](#S_Reporting_Parameters_Section) |
| component | 1..1 | SHALL |  | [3343-12924](#C_3343-12924) |  |
| section | 1..1 | SHALL |  | [3343-17080](#C_3343-17080) | [Patient Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4](#S_Patient_Data_Section) |

1. Conforms to [US Realm Header (V3)](#D_US_Realm_Header_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. SHALL contain exactly one [1..1] templateId (CONF:3343-12910) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.1.1" (CONF:3343-14613).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27005).
3. SHALL contain exactly one [1..1] code (CONF:3343-12911).
   1. This code SHALL contain exactly one [1..1] @code="55182-0" Quality Measure Report (CONF:3343-28137).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28138).
4. SHALL contain exactly one [1..1] title (CONF:3343-12912).
5. SHALL contain exactly one [1..1] recordTarget (CONF:3343-12913).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:3343-28387).
      1. This patientRole MAY contain zero or one [0..1] patient (CONF:3343-28388).
         1. The patient, if present, MAY contain zero or more [0..\*] sdtc:ethnicGroupCode, which SHALL be selected from ValueSet Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877 DYNAMIC (CONF:3343-28389).
6. SHALL contain exactly one [1..1] custodian (CONF:3343-12914).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:3343-12915).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:3343-12916).
         1. This assignedCustodian SHALL represent the organization that owns and reports the data (CONF:3343-12917).
7. SHALL contain exactly one [1..1] component (CONF:3343-12918).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3343-12919).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3343-12920) such that it
         1. SHALL contain exactly one [1..1] [Measure Section](#S_Measure_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2) (CONF:3343-17078).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:3343-12923) such that it
         1. SHALL contain exactly one [1..1] [Reporting Parameters Section](#S_Reporting_Parameters_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1) (CONF:3343-17079).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:3343-12924) such that it
         1. SHALL contain exactly one [1..1] [Patient Data Section](#S_Patient_Data_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4) (CONF:3343-17080).

QDM-Based QRDA (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 5: QDM-Based QRDA (V6) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Reporting Parameters Section](#S_Reporting_Parameters_Section) (required)  [Measure Section QDM](#S_Measure_Section_QDM) (required)  [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (required) |

A QDM-Based QRDA is a QRDA where the patient data entry-level templates are derived from the Quality Data Model (QDM). A QDM-Based QRDA defines explicitly how a Health Quality Measures Format (HQMF) eMeasure (electronic Clinical Quality Measure) is referenced. This template describes an optional documentationOf/serviceEvent where multiple provider and organization ids can be represented

Table 6: QDM-Based QRDA (V6) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4388-12972](#C_4388-12972) |  |
| @root | 1..1 | SHALL |  | [4388-26943](#C_4388-26943) | 2.16.840.1.113883.10.20.24.1.2 |
| @extension | 1..1 | SHALL |  | [4388-28696](#C_4388-28696) | 2018-10-01 |
| recordTarget | 1..1 | SHALL |  | [4388-16598](#C_4388-16598) |  |
| patientRole | 1..1 | SHALL |  | [4388-16856](#C_4388-16856) |  |
| id | 0..1 | MAY |  | [4388-16857](#C_4388-16857) |  |
| @root | 1..1 | SHALL |  | [4388-16858](#C_4388-16858) | 2.16.840.1.113883.4.572 |
| id | 0..1 | MAY |  | [4388-28697](#C_4388-28697) |  |
| @root | 1..1 | SHALL |  | [4388-28698](#C_4388-28698) | 2.16.840.1.113883.4.927 |
| patient | 1..1 | SHALL |  | [4388-27570](#C_4388-27570) |  |
| administrativeGenderCode | 1..1 | SHALL |  | [4388-27572](#C_4388-27572) |  |
| birthTime | 1..1 | SHALL |  | [4388-27571](#C_4388-27571) |  |
| raceCode | 1..1 | SHALL |  | [4388-27573](#C_4388-27573) |  |
| ethnicGroupCode | 1..1 | SHALL |  | [4388-27574](#C_4388-27574) |  |
| custodian | 1..1 | SHALL |  | [4388-16600](#C_4388-16600) |  |
| assignedCustodian | 1..1 | SHALL |  | [4388-28239](#C_4388-28239) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [4388-28240](#C_4388-28240) |  |
| id | 0..1 | MAY |  | [4388-28241](#C_4388-28241) |  |
| @root | 1..1 | SHALL |  | [4388-28244](#C_4388-28244) | 2.16.840.1.113883.4.336 |
| @extension | 1..1 | SHALL |  | [4388-28245](#C_4388-28245) |  |
| id | 0..1 | MAY |  | [4388-28242](#C_4388-28242) |  |
| @root | 1..1 | SHALL |  | [4388-28246](#C_4388-28246) | 2.16.840.1.113883.4.2 |
| @extension | 1..1 | SHALL |  | [4388-28247](#C_4388-28247) |  |
| id | 0..1 | MAY |  | [4388-28243](#C_4388-28243) |  |
| @root | 1..1 | SHALL |  | [4388-28248](#C_4388-28248) | 1.3.6.1.4.1.33895 |
| @extension | 1..1 | SHALL |  | [4388-28249](#C_4388-28249) |  |
| informationRecipient | 0..\* | MAY |  | [4388-16703](#C_4388-16703) |  |
| intendedRecipient | 1..1 | SHALL |  | [4388-16704](#C_4388-16704) |  |
| id | 1..\* | SHALL |  | [4388-16705](#C_4388-16705) |  |
| documentationOf | 0..1 | MAY |  | [4388-16579](#C_4388-16579) |  |
| serviceEvent | 1..1 | SHALL |  | [4388-16580](#C_4388-16580) |  |
| @classCode | 1..1 | SHALL |  | [4388-16581](#C_4388-16581) | PCPR |
| performer | 1..\* | SHALL |  | [4388-16583](#C_4388-16583) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16584](#C_4388-16584) | PRF |
| time | 0..1 | MAY |  | [4388-16585](#C_4388-16585) |  |
| assignedEntity | 1..1 | SHALL |  | [4388-16586](#C_4388-16586) |  |
| id | 0..1 | MAY |  | [4388-16587](#C_4388-16587) |  |
| @root | 1..1 | SHALL |  | [4388-16588](#C_4388-16588) | 2.16.840.1.113883.4.6 |
| representedOrganization | 1..1 | SHALL |  | [4388-16591](#C_4388-16591) |  |
| id | 0..1 | SHOULD |  | [4388-16592](#C_4388-16592) |  |
| @root | 1..1 | SHALL |  | [4388-16593](#C_4388-16593) | 2.16.840.1.113883.4.2 |
| id | 0..1 | MAY |  | [4388-16595](#C_4388-16595) |  |
| @root | 1..1 | SHALL |  | [4388-16596](#C_4388-16596) | 2.16.840.1.113883.4.336 |
| @extension | 1..1 | SHALL |  | [4388-16597](#C_4388-16597) |  |
| component | 1..1 | SHALL |  | [4388-12973](#C_4388-12973) |  |
| structuredBody | 1..1 | SHALL |  | [4388-17081](#C_4388-17081) |  |
| component | 1..1 | SHALL |  | [4388-17082](#C_4388-17082) |  |
| section | 1..1 | SHALL |  | [4388-17083](#C_4388-17083) | [Measure Section QDM (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3](#S_Measure_Section_QDM) |
| component | 1..1 | SHALL |  | [4388-17090](#C_4388-17090) |  |
| section | 1..1 | SHALL |  | [4388-17092](#C_4388-17092) | [Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1](#S_Reporting_Parameters_Section) |
| component | 1..1 | SHALL |  | [4388-17091](#C_4388-17091) |  |
| section | 1..1 | SHALL |  | [4388-17093](#C_4388-17093) | [Patient Data Section QDM (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01](#S_Patient_Data_Section_QDM_V6) |

1. Conforms to [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01).
2. SHALL contain exactly one [1..1] templateId (CONF:4388-12972) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.1.2" (CONF:4388-26943).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-28696).
3. SHALL contain exactly one [1..1] recordTarget (CONF:4388-16598).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:4388-16856).
      1. This patientRole MAY contain zero or one [0..1] id (CONF:4388-16857) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.572" Medicare HIC number (CONF:4388-16858).
      2. This patientRole MAY contain zero or one [0..1] id (CONF:4388-28697) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.927" Medicare Beneficiary Identifier (MBI) (CONF:4388-28698).
      3. This patientRole SHALL contain exactly one [1..1] patient (CONF:4388-27570).
         1. This patient SHALL contain exactly one [1..1] administrativeGenderCode (CONF:4388-27572).  
            Note: QDM Datatype: Patient Characteristic, Sex
         2. This patient SHALL contain exactly one [1..1] birthTime (CONF:4388-27571).  
            Note: QDM Datatype: Patient Characteristic, Birth Date
         3. This patient SHALL contain exactly one [1..1] raceCode (CONF:4388-27573).  
            Note: QDM Datatype: Patient Characteristic, Race
         4. This patient SHALL contain exactly one [1..1] ethnicGroupCode (CONF:4388-27574).  
            Note: QDM Datatype: Patient Characteristic, Ethnicity
4. SHALL contain exactly one [1..1] custodian (CONF:4388-16600).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:4388-28239).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:4388-28240).
         1. This representedCustodianOrganization MAY contain zero or one [0..1] id (CONF:4388-28241) such that it
            1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" CMS Certification Number (CONF:4388-28244).
            2. SHALL contain exactly one [1..1] @extension (CONF:4388-28245).
         2. This representedCustodianOrganization MAY contain zero or one [0..1] id (CONF:4388-28242) such that it
            1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:4388-28246).
            2. SHALL contain exactly one [1..1] @extension (CONF:4388-28247).
         3. This representedCustodianOrganization MAY contain zero or one [0..1] id (CONF:4388-28243) such that it
            1. SHALL contain exactly one [1..1] @root="1.3.6.1.4.1.33895" The Joint Commission’s Health Care Organization (HCO) Identification Number (CONF:4388-28248).
            2. SHALL contain exactly one [1..1] @extension (CONF:4388-28249).
5. MAY contain zero or more [0..\*] informationRecipient (CONF:4388-16703).
   1. The informationRecipient, if present, SHALL contain exactly one [1..1] intendedRecipient (CONF:4388-16704).
      1. This intendedRecipient SHALL contain at least one [1..\*] id (CONF:4388-16705).
         1. IntendedRecipient ID can be used by the receiver to ensure they are processing a file that was intended to be sent to them (CONF:4388-16706).
6. MAY contain zero or one [0..1] documentationOf (CONF:4388-16579) such that it
   1. SHALL contain exactly one [1..1] serviceEvent (CONF:4388-16580).
      1. This serviceEvent SHALL contain exactly one [1..1] @classCode="PCPR" Care Provision (CONF:4388-16581).
      2. This serviceEvent SHALL contain at least one [1..\*] performer (CONF:4388-16583).
         1. Such performers SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CONF:4388-16584).
         2. Such performers MAY contain zero or one [0..1] time (CONF:4388-16585).
         3. Such performers SHALL contain exactly one [1..1] assignedEntity (CONF:4388-16586).

This assignedEntity id/@root coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI).

* + - * 1. This assignedEntity MAY contain zero or one [0..1] id (CONF:4388-16587) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:4388-16588).

* + - * 1. This assignedEntity SHALL contain exactly one [1..1] representedOrganization (CONF:4388-16591).

This representedOrganization id/@root coupled with the id/@extension represents the organization's Tax Identification Number (TIN).

This representedOrganization SHOULD contain zero or one [0..1] id (CONF:4388-16592) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:4388-16593).

This representedOrganization id/@root coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN).

This representedOrganization MAY contain zero or one [0..1] id (CONF:4388-16595) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" Facility CMS Certification Number (CONF:4388-16596).

SHALL contain exactly one [1..1] @extension (CONF:4388-16597).

1. SHALL contain exactly one [1..1] component (CONF:4388-12973) such that it
   1. SHALL contain exactly one [1..1] structuredBody (CONF:4388-17081).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4388-17082) such that it
         1. SHALL contain exactly one [1..1] [Measure Section QDM](#S_Measure_Section_QDM) (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3) (CONF:4388-17083).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4388-17090) such that it
         1. SHALL contain exactly one [1..1] [Reporting Parameters Section](#S_Reporting_Parameters_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1) (CONF:4388-17092).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4388-17091) such that it
         1. SHALL contain exactly one [1..1] [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01) (CONF:4388-17093).

Figure 17: documentationOf/serviceEvent example with identifiers

<documentationOf typeCode="DOC">

<serviceEvent classCode="PCPR">

<!-- care provision -->

<effectiveTime>

<low value="20180101"/>

<high value="20181231"/>

</effectiveTime>

<!-- Can include multiple performers, each with identifiers such as an NPI, TIN, CCN. -->

<performer typeCode="PRF">

<assignedEntity>

<!-- This is the provider NPI -->

<id root="2.16.840.1.113883.4.6" extension="111111111" />

<representedOrganization>

<!-- This is the organization TIN -->

<id root="2.16.840.1.113883.4.2" extension="1234567" />

<!-- This is the organization CCN -->

<id root="2.16.840.1.113883.4.336" extension="654321" />

</representedOrganization>

</assignedEntity>

</performer>

</serviceEvent>

</documentationOf>

QRDA Category I Report - CMS (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01 (open)]

Draft as part of CMS 2020 QRDA CMS HQR IG

Table 7: QRDA Category I Report - CMS (V6) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (required)  [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (required)  [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (required)  [Measure Section QDM](#S_Measure_Section_QDM) (required)  [Reporting Parameters Section - CMS](#S_Reporting_Parameters_Section_CMS) (required) |

This template describes header constraints that apply to the CMS Quality Reporting Document Architecture (QRDA) Category I document.

Table 8: QRDA Category I Report - CMS (V6) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4418-28373](#C_4418-28373) |  |
| @root | 1..1 | SHALL |  | [4418-28374](#C_4418-28374) | 2.16.840.1.113883.10.20.24.1.3 |
| @extension | 1..1 | SHALL |  | [4418-28375](#C_4418-28375) | 2019-02-01 |
| id | 1..1 | SHALL |  | [4418-28376](#C_4418-28376) |  |
| effectiveTime | 1..1 | SHALL |  | [4418-28378](#C_4418-28378) | [US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4](#U_US_Realm_Date_and_Time_DTMUSFIELDED) |
| languageCode | 1..1 | SHALL |  | [4418-28379](#C_4418-28379) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| @code | 1..1 | SHALL |  | [4418-28380](#C_4418-28380) | en |
| recordTarget | 1..1 | SHALL |  | [4418-28389](#C_4418-28389) |  |
| patientRole | 1..1 | SHALL |  | [4418-28390](#C_4418-28390) |  |
| id | 0..1 | SHOULD |  | [4418-28391](#C_4418-28391) |  |
| @root | 1..1 | SHALL |  | [4418-28392](#C_4418-28392) | 2.16.840.1.113883.4.572 |
| id | 1..1 | SHALL |  | [4418-28393](#C_4418-28393) |  |
| @root | 1..1 | SHALL |  | [4418-28478](#C_4418-28478) |  |
| @extension | 1..1 | SHALL |  | [4418-28492](#C_4418-28492) |  |
| id | 0..1 | SHOULD |  | [4418-28527](#C_4418-28527) |  |
| @root | 1..1 | SHALL |  | [4418-28528](#C_4418-28528) | 2.16.840.1.113883.4.927 |
| addr | 1..\* | SHALL |  | [4418-28405](#C_4418-28405) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| patient | 1..1 | SHALL |  | [4418-28396](#C_4418-28396) |  |
| name | 1..1 | SHALL |  | [4418-28395](#C_4418-28395) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |
| administrativeGenderCode | 1..1 | SHALL |  | [4418-28399](#C_4418-28399) | urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex) |
| birthTime | 1..1 | SHALL |  | [4418-28400](#C_4418-28400) |  |
| raceCode | 1..1 | SHALL |  | [4418-28402](#C_4418-28402) | urn:oid:2.16.840.1.114222.4.11.836 (Race) |
| sdtc:raceCode | 0..\* | MAY |  | [4418-28403](#C_4418-28403) | urn:oid:2.16.840.1.114222.4.11.836 (Race) |
| ethnicGroupCode | 1..1 | SHALL |  | [4418-28404](#C_4418-28404) | urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity) |
| custodian | 1..1 | SHALL |  | [4418-28406](#C_4418-28406) |  |
| assignedCustodian | 1..1 | SHALL |  | [4418-28407](#C_4418-28407) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [4418-28408](#C_4418-28408) |  |
| id | 1..1 | SHALL |  | [4418-28409](#C_4418-28409) |  |
| @root | 1..1 | SHALL |  | [4418-28410](#C_4418-28410) | 2.16.840.1.113883.4.336 |
| @extension | 1..1 | SHALL |  | [4418-28411](#C_4418-28411) |  |
| informationRecipient | 1..1 | SHALL |  | [4418-28412](#C_4418-28412) |  |
| intendedRecipient | 1..1 | SHALL |  | [4418-28413](#C_4418-28413) |  |
| id | 1..1 | SHALL |  | [4418-28414](#C_4418-28414) |  |
| @root | 1..1 | SHALL |  | [4418-28416](#C_4418-28416) | 2.16.840.1.113883.3.249.7 |
| @extension | 1..1 | SHALL |  | [4418-28415](#C_4418-28415) | urn:oid:2.16.840.1.113883.3.249.14.103 (QRDA I CMS Program Name) |
| participant | 1..1 | SHALL |  | [4418-28520](#C_4418-28520) |  |
| associatedEntity | 1..1 | SHALL |  | [4418-28521](#C_4418-28521) |  |
| id | 1..1 | SHALL |  | [4418-28522](#C_4418-28522) |  |
| @root | 1..1 | SHALL |  | [4418-28523](#C_4418-28523) | 2.16.840.1.113883.3.2074.1 |
| @extension | 1..1 | SHALL |  | [4418-28524](#C_4418-28524) |  |
| documentationOf | 0..1 | MAY |  | [4418-28417](#C_4418-28417) |  |
| serviceEvent | 1..1 | SHALL |  | [4418-28418](#C_4418-28418) |  |
| performer | 1..\* | SHALL |  | [4418-28493](#C_4418-28493) |  |
| @typeCode | 1..1 | SHALL |  | [4418-28494](#C_4418-28494) | PRF |
| assignedEntity | 1..1 | SHALL |  | [4418-28495](#C_4418-28495) |  |
| id | 0..1 | SHOULD |  | [4418-28496](#C_4418-28496) |  |
| @root | 1..1 | SHALL |  | [4418-28497](#C_4418-28497) | 2.16.840.1.113883.4.6 |
| assignedPerson | 0..1 | MAY |  | [4418-28498](#C_4418-28498) |  |
| name | 0..1 | MAY |  | [4418-28499](#C_4418-28499) |  |
| representedOrganization | 1..1 | SHALL |  | [4418-28500](#C_4418-28500) |  |
| id | 0..1 | SHOULD |  | [4418-28501](#C_4418-28501) |  |
| @root | 1..1 | SHALL |  | [4418-28502](#C_4418-28502) | 2.16.840.1.113883.4.2 |
| name | 0..1 | MAY |  | [4418-28503](#C_4418-28503) |  |
| component | 1..1 | SHALL |  | [4418-28472](#C_4418-28472) |  |
| structuredBody | 1..1 | SHALL |  | [4418-28473](#C_4418-28473) |  |
| component | 1..1 | SHALL |  | [4418-28474](#C_4418-28474) |  |
| section | 1..1 | SHALL |  | [4418-28475](#C_4418-28475) | [Reporting Parameters Section - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01](#S_Reporting_Parameters_Section_CMS) |
| component | 1..1 | SHALL |  | [4418-28476](#C_4418-28476) |  |
| section | 1..1 | SHALL |  | [4418-28477](#C_4418-28477) | Patient Data Section QDM (V5) - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2018-02-01 |
| component | 1..1 | SHALL |  | [4418-28525](#C_4418-28525) |  |
| section | 1..1 | SHALL |  | [4418-28526](#C_4418-28526) | [Measure Section QDM (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3](#S_Measure_Section_QDM) |

1. Conforms to [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01).
2. SHALL contain exactly one [1..1] templateId (CONF:CMS\_0001) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.1.3" (CONF:CMS\_0002).
   2. SHALL contain exactly one [1..1] @extension="2019-02-01" (CONF:CMS\_0003).
3. SHALL contain exactly one [1..1] id (CONF:1198-5363).
   1. This id SHALL be a globally unique identifier for the document (CONF:1198-9991).
4. SHALL contain exactly one [1..1] [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
5. SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:1198-5372).
   1. This languageCode SHALL contain exactly one [1..1] @code="en" (CONF:CMS\_0010).
6. SHALL contain exactly one [1..1] recordTarget (CONF:4388-16598).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:4388-16856).

*HQR:* Medicare HIC Number is not required for HQR but should be submitted if the payer is Medicare and the patient has an HIC number assigned.

* + 1. This patientRole SHOULD contain zero or one [0..1] id (CONF:4388-16857\_C01) such that it
       1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.572" Medicare HIC number (CONF:4388-16858).

*HQR:* Patient Identification Number is required for HQR.

* + 1. This patientRole SHALL contain exactly one [1..1] id (CONF:CMS\_0009) such that it
       1. SHALL contain exactly one [1..1] @root (CONF:CMS\_0053).  
          Note: This is the provider’s organization OID or other non-null value different than the OID for the Medicare HIC Number (2.16.840.1.113883.4.572) and the OID for the Medicare Beneficiary Identifier (2.16.840.1.113883.4.927).
       2. SHALL contain exactly one [1..1] @extension (CONF:CMS\_0103).  
          Note: The value of @extension is the Patient ID.

*HQR:* Medicare Beneficiary Identifier (MBI) is not required for HQR but should be submitted if the payer is Medicare and the patient has an MBI number assigned.

* + 1. This patientRole SHOULD contain zero or one [0..1] id (CONF:4388-28697\_C01) such that it
       1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.927" Medicare Beneficiary Identifier (CONF:4388-28698).
    2. This patientRole SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271).
    3. This patientRole SHALL contain exactly one [1..1] patient (CONF:4388-27570).
       1. This patient SHALL contain exactly one [1..1] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5284\_C01).
       2. This patient SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1 DYNAMIC (CONF:CMS\_0011).
          1. If the patient’s administrative sex is unknown, nullFlavor=”UNK” SHALL be submitted (CONF:CMS\_0029).
       3. This patient SHALL contain exactly one [1..1] birthTime (CONF:1198-5298).
          1. SHALL be precise to day (CONF:1198-5300\_C01).

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

* + - * 1. MAY be precise to the minute (CONF:1198-32418).
      1. This patient SHALL contain exactly one [1..1] raceCode, which SHALL be selected from ValueSet Race urn:oid:2.16.840.1.114222.4.11.836 DYNAMIC (CONF:CMS\_0013).
         1. If the patient’s race is unknown, nullFlavor="UNK" SHALL be submitted (CONF:CMS\_0030).
         2. If the patient declined to specify his/her race, nullFlavor="ASKU” SHALL be submitted (CONF:CMS\_0031).
      2. This patient MAY contain zero or more [0..\*] sdtc:raceCode, which SHALL be selected from ValueSet Race urn:oid:2.16.840.1.114222.4.11.836 DYNAMIC (CONF:CMS\_0014).  
         Note: If a patient has more than one race category, one race is reported in raceCode, and additional races are reported using sdtc:raceCode.
      3. This patient SHALL contain exactly one [1..1] ethnicGroupCode, which SHALL be selected from ValueSet Ethnicity urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC (CONF:1198-5323).
         1. If the patient’s ethnicity is unknown, nullFlavor=”UNK” SHALL be submitted (CONF:CMS\_0032).
         2. If the patient declined to specify his/her ethnicity, nullFlavor="ASKU" SHALL be submitted (CONF:CMS\_0033).

1. SHALL contain exactly one [1..1] custodian (CONF:4388-16600).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:4388-28239).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:4388-28240).

*HQR:* This representedCustodianOrganization id/@root='2.16.840.1.113883.4.336' coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN). CCN is required for HQR.

* + - 1. This representedCustodianOrganization SHALL contain exactly one [1..1] id (CONF:4388-28241\_C01) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.336" CMS Certification Number (CONF:4388-28244).
         2. SHALL contain exactly one [1..1] @extension (CONF:4388-28245).  
            Note: A fixed CCN value 800890 shall be used for HQR test submission when no hospital is associated with a submitted QRDA document.

CCN SHALL be six to ten characters in length (CONF:CMS\_0035).

1. SHALL contain exactly one [1..1] informationRecipient (CONF:4388-16703\_C01).
   1. This informationRecipient SHALL contain exactly one [1..1] intendedRecipient (CONF:4388-16704).
      1. This intendedRecipient SHALL contain exactly one [1..1] id (CONF:4388-16705\_C01).
         1. This id SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.249.7" (CONF:CMS\_0025).
         2. This id SHALL contain exactly one [1..1] @extension, which SHALL be selected from ValueSet QRDA I CMS Program Name urn:oid:2.16.840.1.113883.3.249.14.103 STATIC 2019-02-01 (CONF:CMS\_0026).  
            Note: The value of @extension is CMS Program Name.
2. SHALL contain exactly one [1..1] participant (CONF:1198-10003\_C01).

*HQR:* CMS EHR Certification Number is required for HQR.

* 1. This participant SHALL contain exactly one [1..1] associatedEntity (CONF:CMS\_0004).
     1. This associatedEntity SHALL contain exactly one [1..1] id (CONF:CMS\_0005).
        1. This id SHALL contain exactly one [1..1] @root="2.16.840.1.113883.3.2074.1" CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) (CONF:CMS\_0006).
        2. This id SHALL contain exactly one [1..1] @extension (CONF:CMS\_0008).  
           Note: The value of @extension is the Certification Number.

1. MAY contain zero or one [0..1] documentationOf (CONF:4388-16579) such that it
   1. SHALL contain exactly one [1..1] serviceEvent (CONF:4388-16580).
      1. This serviceEvent SHALL contain at least one [1..\*] performer (CONF:4388-16583).
         1. Such performers SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CONF:4388-16584).
         2. Such performers SHALL contain exactly one [1..1] assignedEntity (CONF:4388-16586).

This assignedEntity id/@root='2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI). A valid NPI is 10 numeric digits where the 10th digit is a check digit computed using the Luhn algorithm.  
*HQR:* For HQR, NPI may not be applicable. If NPI is submitted for HQR, then the NPI SHALL conform to the constraints specified for NPI and the NPI must be in the correct format.

* + - * 1. This assignedEntity SHOULD contain zero or one [0..1] id (CONF:4388-16587) such that it

SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:4388-28497).

* + - * 1. This assignedEntity MAY contain zero or one [0..1] assignedPerson (CONF:CMS\_0019).

The assignedPerson, if present, MAY contain zero or one [0..1] name (CONF:CMS\_0020).  
Note: This is the provider's name.

* + - * 1. This assignedEntity SHALL contain exactly one [1..1] representedOrganization (CONF:4388-16591).

This representedOrganization id/@root='2.16.840.1.113883.4.2' coupled with the id/@extension represents the organization's Tax Identification Number (TIN). The provided TIN must be in valid format (9 decimal digits).  
*HQR:* For HQR, TIN may not be applicable. If TIN is submitted for HQR, then it SHALL conform to the constraints specified for TIN. and the TIN must be in valid format (9 decimal digits).

This representedOrganization SHOULD contain zero or one [0..1] id (CONF:4388-16592).

The id, if present, SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:4388-16593).

This representedOrganization MAY contain zero or one [0..1] name (CONF:CMS\_0022).  
Note: This is the organization's name, such as hospital's name.

1. SHALL contain exactly one [1..1] component (CONF:4388-12973).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4388-17081).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:CMS\_0056) such that it
         1. SHALL contain exactly one [1..1] [Reporting Parameters Section - CMS](#S_Reporting_Parameters_Section_CMS) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01) (CONF:CMS\_0054).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:CMS\_0057) such that it
         1. SHALL contain exactly one [1..1] Patient Data Section QDM (V5) - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2018-02-01) (CONF:CMS\_0055).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4388-17082) such that it
         1. SHALL contain exactly one [1..1] [Measure Section QDM](#S_Measure_Section_QDM) (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3) (CONF:4388-17083).

Figure 18: General Header Example

<ClinicalDocument>

<realmCode code="US"/>

<typeId root="2.16.840.1.113883.1.3" extension="POCD\_HD000040"/>

<!-- US Realm Header (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2015-08-01"/>

<!-- QRDA Category I Framework (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.1.1" extension="2017-08-01"/>

<!-- QDM-based QRDA (V6) -->

<templateId root="2.16.840.1.113883.10.20.24.1.2" extension="2018-10-01"/>

<!-- QRDA Category I Report - CMS (V6) -->

<templateId root="2.16.840.1.113883.10.20.24.1.3" extension="2019-02-01"/>

<!-- This is the globally unique identifier for this QRDA-I document -->

<id root="fcae78c4-a122-4bfb-9aad-a9e7f33324d5"/>

<code code="55182-0" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Quality Measure Report"/>

<title>Good Health QRDA-I Report</title>

<!-- This is the document creation time -->

<effectiveTime value="20210201"/>

<confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"

codeSystemName="HL7Confidentiality"/>

<languageCode code="en"/>

...

</ClinicalDocument>

Figure 19: recordTarget Example, QRDA Category I Report - CMS (V6)

<recordTarget>

<patientRole>

<!-- Patient Identifier Number. The root OID could be provider's

organization OID or other value -->

<id root="2.16.840.1.113883.123.123.1" extension="022354"/>

<addr use="HP">

<streetAddressLine>101 North Pole Lane</streetAddressLine>

<city>Ames</city>

<state>IA</state>

<postalCode>50014</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1-781-271-3000"/>

<patient>

<name>

<given>Jane</given>

<family>Doe</family>

</name>

<administrativeGenderCode code="F"

codeSystem="2.16.840.1.113883.5.1"/>

<!-- If the patient administrative sex is unknown, use

nullFlavor="UNK" -->

<!-- <administrativeGenderCode nullFlavor="UNK"/> -->

<birthTime value="19460102"/>

<!-- raceCode "2131-1 (Other Race)" shall not be used for

either raceCode or sdtc:raceCode -->

<raceCode code="2106-3" codeSystem="2.16.840.1.113883.6.238"/>

<!-- if the patient declined to specify his/her race, use

nullFlavor="ASKU" -->

<!-- <raceCode nullFlavor="ASKU"/> -->

<!-- if the patient's race is unknown, use nullFlavor="UNK" -->

<!-- <raceCode nullFlavor="UNK"/> -->

<!-- Use sdtc:raceCode only if the patient has more than one

race category -->

<!-- <sdtc:raceCode code="2054-5"

codeSystem="2.16.840.1.113883.6.238"/> -->

<ethnicGroupCode code="2186-5"

codeSystem="2.16.840.1.113883.6.238"/>

<!-- if the patient declined to specify his/her ethnicity, use

nullFlavor="ASKU" -->

<!-- <ethnicGroupCode nullFlavor="ASKU"/> -->

<!-- if the patient's ethnicity is unknown, use

nullFlavor="UNK" -->

<!-- <ethnicGroupCode nullFlavor="UNK"/> -->

</patient>

</patientRole>

</recordTarget>

Figure 20: CCN as Custodian Example, QRDA Category I Report - CMS (V6)

<!-- This is an example for QRDA I test submission to HQR.

CCN is required for HQR.-->

<custodian>

<assignedCustodian>

<representedCustodianOrganization>

<!-- @extension attribute contains the submitter's CCN.

@nullFlavor is not allowed. -->

<id root="2.16.840.1.113883.4.336" extension="800890"/>

<name>Good Health Hospital</name>

<telecom value="tel:(555)555-1212" use="WP"/>

<addr use="WP">

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

</representedCustodianOrganization>

</assignedCustodian>

</custodian>

Figure 21: informationRecipient Example, QRDA Category I Report - CMS (V4)

<!-- This example shows the @extension attribute with a value of "HQR\_PI", which indicates that this QRDA I report is submitted to the Hospital Quality Reporting for the Promoting Interoperability Program -->

<informationRecipient>

<intendedRecipient>

<!-- CMS Program Name is required. @nullFlavor is not allowed -->

<id root="2.16.840.1.113883.3.249.7"

extension=" HQR\_PI"/>

</intendedRecipient>

</informationRecipient>

Figure 22: documentationOf / serviceEvent Example

<informationRecipient>

<!-- CMS Program Name is "HQR\_PI" -->

<intendedRecipient>

<id root="2.16.840.1.113883.3.249.7" extension="HQR\_PI"/>

</intendedRecipient>

</informationRecipient>

...

<documentationOf>

<serviceEvent classCode="PCPR">

...

<performer typeCode="PRF">

<assignedEntity>

<representedOrganization/>

</assignedEntity>

</performer>

</serviceEvent>

</documentationOf>

# section

Measure Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.24.2.2 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 9: Measure Section Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) (required) | [Measure Reference](#E_Measure_Reference) (required) |

This section contains information about the measure or measures being reported. This section references the measure through reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure. The measure section must contain a reference to at least one externalDocument id of all the measures being reported in the QRDA instance.

Table 10: Measure Section Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2) | | | | | |
| templateId | 1..1 | SHALL |  | [67-12801](#C_67-12801) |  |
| @root | 1..1 | SHALL |  | [67-12802](#C_67-12802) | 2.16.840.1.113883.10.20.24.2.2 |
| code | 1..1 | SHALL |  | [67-12798](#C_67-12798) |  |
| @code | 1..1 | SHALL |  | [67-19230](#C_67-19230) | 55186-1 |
| @codeSystem | 1..1 | SHALL |  | [67-27012](#C_67-27012) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [67-12799](#C_67-12799) | Measure Section |
| text | 1..1 | SHALL |  | [67-12800](#C_67-12800) |  |
| entry | 1..\* | SHALL |  | [67-13003](#C_67-13003) |  |
| organizer | 1..1 | SHALL |  | [67-16677](#C_67-16677) | [Measure Reference (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98](#E_Measure_Reference) |

1. SHALL contain exactly one [1..1] templateId (CONF:67-12801) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.2" (CONF:67-12802).
2. SHALL contain exactly one [1..1] code (CONF:67-12798).
   1. This code SHALL contain exactly one [1..1] @code="55186-1" Measure Section (CONF:67-19230).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27012).
3. SHALL contain exactly one [1..1] title="Measure Section" (CONF:67-12799).
4. SHALL contain exactly one [1..1] text (CONF:67-12800).
5. SHALL contain at least one [1..\*] entry (CONF:67-13003) such that it
   1. SHALL contain exactly one [1..1] [Measure Reference](#E_Measure_Reference) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98) (CONF:67-16677).

Measure Section QDM

[section: identifier urn:oid:2.16.840.1.113883.10.20.24.2.3 (open)]

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Table 11: Measure Section QDM Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) (required)  [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) (required) | [eMeasure Reference QDM](#E_eMeasure_Reference_QDM) (required) |

This section contains information about the eCQM or eCQMs being reported. It must contain entries with the identifiers of all the eCQMs so that corresponding QRDA QDM data element entry templates to be instantiated in the Patient Data Section are identified. Each eCQM for which QRDA QDM data elements are being sent must reference the eCQMs act/id. Other eCQM identifiers that could be referenced are the eCQM Identifier (Measure Authoring Tool), eCQM Version Number, eCQM Title and the NQF Number.

Table 12: Measure Section QDM Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3) | | | | | |
| templateId | 1..1 | SHALL |  | [67-12803](#C_67-12803) |  |
| @root | 1..1 | SHALL |  | [67-12804](#C_67-12804) | 2.16.840.1.113883.10.20.24.2.3 |
| entry | 1..\* | SHALL |  | [67-12978](#C_67-12978) |  |
| organizer | 1..1 | SHALL |  | [67-13193](#C_67-13193) | [eMeasure Reference QDM (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97](#E_eMeasure_Reference_QDM) |

1. Conforms to [Measure Section](#S_Measure_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. SHALL contain exactly one [1..1] templateId (CONF:67-12803) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.3" (CONF:67-12804).
3. SHALL contain at least one [1..\*] entry (CONF:67-12978).
   1. Such entries SHALL contain exactly one [1..1] [eMeasure Reference QDM](#E_eMeasure_Reference_QDM) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97) (CONF:67-13193).

Figure 23: Measure Section QDM Example

<section>

<!-- This is the templateId for Measure Section -->

<templateId root="2.16.840.1.113883.10.20.24.2.2"/>

<!-- This is the templateId for Measure Section QDM -->

<templateId root="2.16.840.1.113883.10.20.24.2.3"/>

<!-- This is the LOINC code for "Measure document". This stays the same for

all measure section required by QRDA standard -->

<code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>

<title>Measure Section</title>

<text>...</text>

<!-- 1..\* Organizers, each containing a reference to an eMeasure -->

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- This is the templateId for Measure Reference -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- This is the templateId for eMeasure Reference QDM -->

<templateId root="2.16.840.1.113883.10.20.24.3.97"/>

...

</organizer>

</entry>

</section>

Patient Data Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.17.2.4 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 13: Patient Data Section Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) (required) |  |

The Patient Data Section contains clinically significant patient data and should contain patient data elements as defined by particular measure(s). At least one structured entry is required, although the QRDA Framework does not constrain what those entries should be. Data elements in a QRDA framework instance should be communicated with entry-level templates from the Implementation Guide for CDA Release 2.0 Consolidated CDA Templates IG (US Realm) published December 2011 where possible. In many cases these templates will require further constraint to convey the exact data elements required by a measure or set of measures. Data elements should always be sent with a date/time stamp.

Table 14: Patient Data Section Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4) | | | | | |
| templateId | 1..1 | SHALL |  | [67-12794](#C_67-12794) |  |
| @root | 1..1 | SHALL |  | [67-12795](#C_67-12795) | 2.16.840.1.113883.10.20.17.2.4 |
| code | 1..1 | SHALL |  | [67-3865](#C_67-3865) |  |
| @code | 1..1 | SHALL |  | [67-26548](#C_67-26548) | 55188-7 |
| @codeSystem | 1..1 | SHALL |  | [67-27013](#C_67-27013) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [67-3866](#C_67-3866) | Patient Data |
| text | 1..1 | SHALL |  | [67-3867](#C_67-3867) |  |
| entry | 1..\* | SHALL |  | [67-14567](#C_67-14567) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:67-12794) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.2.4" (CONF:67-12795).
2. SHALL contain exactly one [1..1] code (CONF:67-3865).
   1. This code SHALL contain exactly one [1..1] @code="55188-7" (CONF:67-26548).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27013).
3. SHALL contain exactly one [1..1] title="Patient Data" (CONF:67-3866).
4. SHALL contain exactly one [1..1] text (CONF:67-3867).
5. SHALL contain at least one [1..\*] entry (CONF:67-14567).

Patient Data Section QDM (V6)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 15: Patient Data Section QDM (V6) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) (required) | [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) (optional)  [Patient Characteristic Expired (V3)](#E_Patient_Characteristic_Expired_V3) (optional)  [Adverse Event](#E_Adverse_Event_V1) (optional)  [Assessment Performed (V2)](#E_Assessment_Performed_V2) (optional)  [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) (optional)  [Encounter Performed Act (V2)](#E_Encounter_Performed_Act_V2) (optional)  [Encounter Order Act (V2)](#E_Encounter_Order_Act_V2) (optional)  [Encounter Recommended Act (V2)](#E_Encounter_Recommended_Act_V2) (optional)  [Allergy Intolerance](#E_Allergy_Intolerance) (optional)  [Symptom Concern Act (V3)](#E_Symptom_Concern_Act_V3) (optional)  [Medication Active (V4)](#E_Medication_Active_V4) (optional)  [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) (optional)  [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Diagnosis Concern Act (V3)](#E_Diagnosis_Concern_Act_V3) (optional)  [Family History Organizer QDM (V4)](#E_Family_History_Organizer_QDM_V4) (optional)  [Device Order Act (V2)](#E_Device_Order_Act_V2) (optional)  [Device Recommended Act (V2)](#E_Device_Recommended_Act_V2) (optional)  [Immunization Order (V2)](#E_Immunization_Order_V2) (optional)  [Intervention Performed (V4)](#E_Intervention_Performed_V4) (optional)  [Intervention Recommended (V4)](#E_Intervention_Recommended_V4) (optional)  [Intervention Order (V4)](#E_Intervention_Order_V4) (optional)  [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) (optional)  [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) (optional)  [Patient Care Experience (V4)](#E_Patient_Care_Experience_V4) (optional)  [Patient Characteristic Clinical Trial Participant (V4)](#E_Patient_Characteristic_Clinical_Trial) (optional)  [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) (optional)  [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) (optional)  [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) (optional)  [Provider Care Experience (V4)](#E_Provider_Care_Experience_V4_)  (optional)  [Substance Recommended (V4)](#E_Substance_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4) (optional)  [Provider Characteristic Observation Assertion (V3)](#E_Provider_Characteristic_Observation_V3) (optional)  [Patient Characteristic Observation Assertion (V4)](#E_Patient_Characteristic_Observation_V4) (optional)  [Diagnostic Study Recommended (V4)](#E_Diagnostic_Study_Recommended_V4) (optional)  [Immunization Administered (V2)](#E_Immunization_Administered_V2) (optional)  [Medication Administered (V4)](#E_Medication_Administered_V4) (optional)  [Program Participation](#E_Program_Participation_) (optional)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Communication Performed](#E_Communication_Performed_) (optional)  [Discharge Medication (V4)](#E_Discharge_Medication_V4) (optional)  [Medication Dispensed Act (V3)](#E_Medication_Dispensed_Act_V3) (optional)  [Medication Order (V5)](#E_Medication_Order_V5) (optional)  [Procedure Order (V5)](#E_Procedure_Order_V5) (optional)  [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) (optional)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional)  [Assessment Order](#E_Assessment_Order_) (optional)  [Device Applied (V5)](#E_Device_Applied_V5) (optional) |

The Patient Data Section QDM (V6) contains entries that conform to the QDM approach to QRDA. In contrast to a QRDA Framework Patient Data Section that requires but does not specify the structured entries, the Patient Data Section QDM contained entry templates have specific requirements to align the quality measure data element type with its corresponding QDM HQMF pattern and QDM attributes. All entries must also have time element. See Quality Data Model-Based QRDA in Volume 1 of this IG.

For time elements, a Coordinated Universal Time (UTC time) offset should not be used anywhere in a QRDA Category I file or, if a UTC time offset is needed anywhere, then it must be specified everywhere a time field is provided. Example time elements are:  
• effectiveTime/@value  
• effectiveTime/low/@value  
• effectiveTime/high/@value  
• time/@value  
• time/low/@value  
• time/high/@value

Table 16: Patient Data Section QDM (V6) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4388-12796](#C_4388-12796) |  |
| @root | 1..1 | SHALL |  | [4388-12797](#C_4388-12797) | 2.16.840.1.113883.10.20.24.2.1 |
| @extension | 1..1 | SHALL |  | [4388-28405](#C_4388-28405) | 2018-10-01 |
| entry | 0..\* | MAY |  | [4388-29176](#C_4388-29176) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29178](#C_4388-29178) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-29177](#C_4388-29177) | [Communication Performed (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01](#E_Communication_Performed_) |
| entry | 0..\* | MAY |  | [4388-28684](#C_4388-28684) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28685](#C_4388-28685) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28686](#C_4388-28686) | [Assessment Performed (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01](#E_Assessment_Performed_V2) |
| entry | 0..\* | MAY |  | [4388-28687](#C_4388-28687) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28688](#C_4388-28688) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28689](#C_4388-28689) | [Assessment Recommended (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01](#E_Assessment_Recommended_V2) |
| entry | 0..\* | MAY |  | [4388-29251](#C_4388-29251) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29252](#C_4388-29252) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-29253](#C_4388-29253) | [Assessment Order (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01](#E_Assessment_Order_) |
| entry | 0..\* | MAY |  | [4388-29236](#C_4388-29236) |  |
| @typeCode | 0..1 | MAY |  | [4388-29238](#C_4388-29238) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-29237](#C_4388-29237) |  |
| entry | 0..\* | MAY |  | [4388-12904](#C_4388-12904) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16604](#C_4388-16604) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28460](#C_4388-28460) | [Device Order Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01](#E_Device_Order_Act_V2) |
| entry | 0..\* | MAY |  | [4388-12906](#C_4388-12906) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16605](#C_4388-16605) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28461](#C_4388-28461) | [Device Recommended Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01](#E_Device_Recommended_Act_V2) |
| entry | 0..\* | MAY |  | [4388-12908](#C_4388-12908) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16606](#C_4388-16606) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28549](#C_4388-28549) | [Diagnosis Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01](#E_Diagnosis_Concern_Act_V3) |
| entry | 0..\* | MAY |  | [4388-13034](#C_4388-13034) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16612](#C_4388-16612) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28494](#C_4388-28494) | [Encounter Order Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01](#E_Encounter_Order_Act_V2) |
| entry | 0..\* | MAY |  | [4388-13146](#C_4388-13146) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16613](#C_4388-16613) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28495](#C_4388-28495) | [Encounter Recommended Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01](#E_Encounter_Recommended_Act_V2) |
| entry | 0..\* | MAY |  | [4388-13154](#C_4388-13154) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16617](#C_4388-16617) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27076](#C_4388-27076) | [Laboratory Test Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01](#E_Laboratory_Test_Order_V4) |
| entry | 0..\* | MAY |  | [4388-13156](#C_4388-13156) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16618](#C_4388-16618) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27156](#C_4388-27156) | [Laboratory Test Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01](#E_Laboratory_Test_Performed_V4) |
| entry | 0..\* | MAY |  | [4388-13162](#C_4388-13162) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16620](#C_4388-16620) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedure | 1..1 | SHALL |  | [4388-27084](#C_4388-27084) | [Procedure Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01](#E_Procedure_Order_V5) |
| entry | 0..\* | MAY |  | [4388-13164](#C_4388-13164) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16621](#C_4388-16621) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedure | 1..1 | SHALL |  | [4388-27130](#C_4388-27130) | [Procedure Performed (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01](#E_Procedure_Performed_V5) |
| entry | 0..\* | MAY |  | [4388-13166](#C_4388-13166) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16622](#C_4388-16622) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedure | 1..1 | SHALL |  | [4388-27087](#C_4388-27087) | [Procedure Recommended (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01](#E_Procedure_Recommended_V5) |
| entry | 0..\* | MAY |  | [4388-13170](#C_4388-13170) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16624](#C_4388-16624) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27295](#C_4388-27295) | [Provider Care Experience (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01](#E_Provider_Care_Experience_V4_) |
| entry | 0..\* | MAY |  | [4388-13172](#C_4388-13172) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16625](#C_4388-16625) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28550](#C_4388-28550) | [Symptom Concern Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01](#E_Symptom_Concern_Act_V3) |
| entry | 0..\* | MAY |  | [4388-13245](#C_4388-13245) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16628](#C_4388-16628) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27296](#C_4388-27296) | [Patient Care Experience (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01](#E_Patient_Care_Experience_V4) |
| entry | 0..\* | MAY |  | [4388-13249](#C_4388-13249) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16630](#C_4388-16630) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27136](#C_4388-27136) | [Physical Exam Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01](#E_Physical_Exam_Performed_V4) |
| entry | 0..\* | MAY |  | [4388-13268](#C_4388-13268) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16634](#C_4388-16634) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedure | 1..1 | SHALL |  | [4388-27133](#C_4388-27133) | [Device Applied (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01](#E_Device_Applied_V5) |
| entry | 0..\* | MAY |  | [4388-13272](#C_4388-13272) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16636](#C_4388-16636) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-13273](#C_4388-13273) | [Laboratory Test Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01](#E_Laboratory_Test_Recommended_V4) |
| entry | 0..\* | MAY |  | [4388-13294](#C_4388-13294) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16638](#C_4388-16638) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-13295](#C_4388-13295) | [Physical Exam Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01](#E_Physical_Exam_Recommended_V4) |
| entry | 0..\* | MAY |  | [4388-13903](#C_4388-13903) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16642](#C_4388-16642) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-27090](#C_4388-27090) | [Medication Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01](#E_Medication_Order_V5) |
| entry | 0..\* | MAY |  | [4388-13910](#C_4388-13910) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16643](#C_4388-16643) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-27040](#C_4388-27040) | [Medication Active (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01](#E_Medication_Active_V4) |
| entry | 0..\* | MAY |  | [4388-13912](#C_4388-13912) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16644](#C_4388-16644) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28570](#C_4388-28570) | [Medication Dispensed Act (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01](#E_Medication_Dispensed_Act_V3) |
| entry | 0..\* | MAY |  | [4388-13916](#C_4388-13916) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16645](#C_4388-16645) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-27042](#C_4388-27042) | [Intervention Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2017-08-01](#E_Intervention_Recommended_V4) |
| entry | 0..\* | MAY |  | [4388-13918](#C_4388-13918) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28434](#C_4388-28434) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-27145](#C_4388-27145) | [Intervention Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01](#E_Intervention_Performed_V4) |
| entry | 0..\* | MAY |  | [4388-13920](#C_4388-13920) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16646](#C_4388-16646) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-27043](#C_4388-27043) | [Intervention Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01](#E_Intervention_Order_V4) |
| entry | 0..\* | MAY |  | [4388-13941](#C_4388-13941) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16649](#C_4388-16649) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-28496](#C_4388-28496) | [Encounter Performed Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01](#E_Encounter_Performed_Act_V2) |
| entry | 0..\* | MAY |  | [4388-13947](#C_4388-13947) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16653](#C_4388-16653) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28956](#C_4388-28956) | [Diagnostic Study Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01](#E_Diagnostic_Study_Recommended_V4) |
| entry | 0..\* | MAY |  | [4388-13949](#C_4388-13949) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16654](#C_4388-16654) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27142](#C_4388-27142) | [Diagnostic Study Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01](#E_Diagnostic_Study_Performed_V4) |
| entry | 0..\* | MAY |  | [4388-13951](#C_4388-13951) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16655](#C_4388-16655) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-13952](#C_4388-13952) | [Diagnostic Study Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01](#E_Diagnostic_Study_Order_V4) |
| entry | 0..\* | MAY |  | [4388-14247](#C_4388-14247) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16660](#C_4388-16660) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27048](#C_4388-27048) | [Patient Characteristic Clinical Trial Participant (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01](#E_Patient_Characteristic_Clinical_Trial) |
| entry | 0..\* | MAY |  | [4388-14428](#C_4388-14428) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16665](#C_4388-16665) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-27153](#C_4388-27153) | [Substance Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01](#E_Substance_Recommended_V4) |
| entry | 0..\* | MAY |  | [4388-14430](#C_4388-14430) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16666](#C_4388-16666) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-14431](#C_4388-14431) | [Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55](#E_Patient_Characteristic_Payer_V1) |
| entry | 0..\* | MAY |  | [4388-14471](#C_4388-14471) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16667](#C_4388-16667) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27052](#C_4388-27052) | [Patient Characteristic Expired (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01](#E_Patient_Characteristic_Expired_V3) |
| entry | 0..\* | MAY |  | [4388-14565](#C_4388-14565) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16670](#C_4388-16670) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| organizer | 1..1 | SHALL |  | [4388-27055](#C_4388-27055) | [Family History Organizer QDM (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01](#E_Family_History_Organizer_QDM_V4) |
| entry | 0..\* | MAY |  | [4388-16548](#C_4388-16548) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16674](#C_4388-16674) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-16549](#C_4388-16549) | [Patient Characteristic Observation Assertion (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01](#E_Patient_Characteristic_Observation_V4) |
| entry | 0..\* | MAY |  | [4388-16556](#C_4388-16556) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16675](#C_4388-16675) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [4388-27062](#C_4388-27062) | [Discharge Medication (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01](#E_Discharge_Medication_V4) |
| entry | 0..\* | MAY |  | [4388-16574](#C_4388-16574) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16676](#C_4388-16676) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27068](#C_4388-27068) | [Care Goal (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01](#E_Care_Goal_V4) |
| entry | 0..\* | MAY |  | [4388-16707](#C_4388-16707) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16708](#C_4388-16708) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-28906](#C_4388-28906) | [Medication Administered (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01](#E_Medication_Administered_V4) |
| entry | 0..\* | MAY |  | [4388-27079](#C_4388-27079) |  |
| @typeCode | 1..1 | SHALL |  | [4388-27080](#C_4388-27080) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-27081](#C_4388-27081) | [Physical Exam Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01](#E_Physical_Exam_Order_V4) |
| entry | 0..\* | MAY |  | [4388-28594](#C_4388-28594) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28595](#C_4388-28595) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-29138](#C_4388-29138) | [Immunization Administered (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01](#E_Immunization_Administered_V2) |
| entry | 0..\* | MAY |  | [4388-28648](#C_4388-28648) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28649](#C_4388-28649) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministration | 1..1 | SHALL |  | [4388-28650](#C_4388-28650) | [Immunization Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01](#E_Immunization_Order_V2) |
| entry | 0..\* | MAY |  | [4388-28747](#C_4388-28747) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28748](#C_4388-28748) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28749](#C_4388-28749) | [Adverse Event (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01](#E_Adverse_Event_V1) |
| entry | 0..\* | MAY |  | [4388-28851](#C_4388-28851) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28852](#C_4388-28852) | DRIV |
| observation | 1..1 | SHALL |  | [4388-28853](#C_4388-28853) | [Allergy Intolerance (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01](#E_Allergy_Intolerance) |
| entry | 0..\* | MAY |  | [4388-28953](#C_4388-28953) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28954](#C_4388-28954) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28955](#C_4388-28955) | [Provider Characteristic Observation Assertion (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01](#E_Provider_Characteristic_Observation_V3) |
| entry | 0..\* | MAY |  | [4388-28979](#C_4388-28979) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28980](#C_4388-28980) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observation | 1..1 | SHALL |  | [4388-28981](#C_4388-28981) | [Program Participation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2017-08-01](#E_Program_Participation_) |

1. Conforms to [Patient Data Section](#S_Patient_Data_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4).
2. SHALL contain exactly one [1..1] templateId (CONF:4388-12796) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.1" (CONF:4388-12797).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-28405).
3. MAY contain zero or more [0..\*] entry (CONF:4388-29176) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29178).
   2. SHALL contain exactly one [1..1] [Communication Performed](#E_Communication_Performed_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01) (CONF:4388-29177).
4. MAY contain zero or more [0..\*] entry (CONF:4388-28684) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28685).
   2. SHALL contain exactly one [1..1] [Assessment Performed (V2)](#E_Assessment_Performed_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01) (CONF:4388-28686).
5. MAY contain zero or more [0..\*] entry (CONF:4388-28687) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28688).
   2. SHALL contain exactly one [1..1] [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01) (CONF:4388-28689).
6. MAY contain zero or more [0..\*] entry (CONF:4388-29251) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29252).
   2. SHALL contain exactly one [1..1] [Assessment Order](#E_Assessment_Order_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01) (CONF:4388-29253).
7. MAY contain zero or more [0..\*] entry (CONF:4388-29236) such that it
   1. MAY contain zero or one [0..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29238).
   2. SHALL contain exactly one [1..1] observation (CONF:4388-29237).
8. MAY contain zero or more [0..\*] entry (CONF:4388-12904) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16604).
   2. SHALL contain exactly one [1..1] [Device Order Act (V2)](#E_Device_Order_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01) (CONF:4388-28460).
9. MAY contain zero or more [0..\*] entry (CONF:4388-12906) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16605).
   2. SHALL contain exactly one [1..1] [Device Recommended Act (V2)](#E_Device_Recommended_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01) (CONF:4388-28461).
10. MAY contain zero or more [0..\*] entry (CONF:4388-12908) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16606).
    2. SHALL contain exactly one [1..1] [Diagnosis Concern Act (V3)](#E_Diagnosis_Concern_Act_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01) (CONF:4388-28549).
11. MAY contain zero or more [0..\*] entry (CONF:4388-13034) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16612).
    2. SHALL contain exactly one [1..1] [Encounter Order Act (V2)](#E_Encounter_Order_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01) (CONF:4388-28494).
12. MAY contain zero or more [0..\*] entry (CONF:4388-13146) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16613).
    2. SHALL contain exactly one [1..1] [Encounter Recommended Act (V2)](#E_Encounter_Recommended_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01) (CONF:4388-28495).
13. MAY contain zero or more [0..\*] entry (CONF:4388-13154) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16617).
    2. SHALL contain exactly one [1..1] [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01) (CONF:4388-27076).
14. MAY contain zero or more [0..\*] entry (CONF:4388-13156) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16618).
    2. SHALL contain exactly one [1..1] [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01) (CONF:4388-27156).
15. MAY contain zero or more [0..\*] entry (CONF:4388-13162) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16620).
    2. SHALL contain exactly one [1..1] [Procedure Order (V5)](#E_Procedure_Order_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01) (CONF:4388-27084).
16. MAY contain zero or more [0..\*] entry (CONF:4388-13164) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16621).
    2. SHALL contain exactly one [1..1] [Procedure Performed (V5)](#E_Procedure_Performed_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01) (CONF:4388-27130).
17. MAY contain zero or more [0..\*] entry (CONF:4388-13166) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16622).
    2. SHALL contain exactly one [1..1] [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01) (CONF:4388-27087).
18. MAY contain zero or more [0..\*] entry (CONF:4388-13170) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16624).
    2. SHALL contain exactly one [1..1] [Provider Care Experience (V4)](#E_Provider_Care_Experience_V4_)  (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01) (CONF:4388-27295).
19. MAY contain zero or more [0..\*] entry (CONF:4388-13172) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16625).
    2. SHALL contain exactly one [1..1] [Symptom Concern Act (V3)](#E_Symptom_Concern_Act_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01) (CONF:4388-28550).
20. MAY contain zero or more [0..\*] entry (CONF:4388-13245) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16628).
    2. SHALL contain exactly one [1..1] [Patient Care Experience (V4)](#E_Patient_Care_Experience_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01) (CONF:4388-27296).
21. MAY contain zero or more [0..\*] entry (CONF:4388-13249) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16630).
    2. SHALL contain exactly one [1..1] [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01) (CONF:4388-27136).
22. MAY contain zero or more [0..\*] entry (CONF:4388-13268) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16634).
    2. SHALL contain exactly one [1..1] [Device Applied (V5)](#E_Device_Applied_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01) (CONF:4388-27133).
23. MAY contain zero or more [0..\*] entry (CONF:4388-13272) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16636).
    2. SHALL contain exactly one [1..1] [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01) (CONF:4388-13273).
24. MAY contain zero or more [0..\*] entry (CONF:4388-13294) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16638).
    2. SHALL contain exactly one [1..1] [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01) (CONF:4388-13295).
25. MAY contain zero or more [0..\*] entry (CONF:4388-13903) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16642).
    2. SHALL contain exactly one [1..1] [Medication Order (V5)](#E_Medication_Order_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01) (CONF:4388-27090).
26. MAY contain zero or more [0..\*] entry (CONF:4388-13910) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16643).
    2. SHALL contain exactly one [1..1] [Medication Active (V4)](#E_Medication_Active_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01) (CONF:4388-27040).
27. MAY contain zero or more [0..\*] entry (CONF:4388-13912) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16644).
    2. SHALL contain exactly one [1..1] [Medication Dispensed Act (V3)](#E_Medication_Dispensed_Act_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01) (CONF:4388-28570).
28. MAY contain zero or more [0..\*] entry (CONF:4388-13916) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16645).
    2. SHALL contain exactly one [1..1] [Intervention Recommended (V4)](#E_Intervention_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2017-08-01) (CONF:4388-27042).
29. MAY contain zero or more [0..\*] entry (CONF:4388-13918) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28434).
    2. SHALL contain exactly one [1..1] [Intervention Performed (V4)](#E_Intervention_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01) (CONF:4388-27145).
30. MAY contain zero or more [0..\*] entry (CONF:4388-13920) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16646).
    2. SHALL contain exactly one [1..1] [Intervention Order (V4)](#E_Intervention_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01) (CONF:4388-27043).
31. MAY contain zero or more [0..\*] entry (CONF:4388-13941) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16649).
    2. SHALL contain exactly one [1..1] [Encounter Performed Act (V2)](#E_Encounter_Performed_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01) (CONF:4388-28496).
32. MAY contain zero or more [0..\*] entry (CONF:4388-13947) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16653).
    2. SHALL contain exactly one [1..1] [Diagnostic Study Recommended (V4)](#E_Diagnostic_Study_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01) (CONF:4388-28956).
33. MAY contain zero or more [0..\*] entry (CONF:4388-13949) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16654).
    2. SHALL contain exactly one [1..1] [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01) (CONF:4388-27142).
34. MAY contain zero or more [0..\*] entry (CONF:4388-13951) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16655).
    2. SHALL contain exactly one [1..1] [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01) (CONF:4388-13952).
35. MAY contain zero or more [0..\*] entry (CONF:4388-14247) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16660).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Clinical Trial Participant (V4)](#E_Patient_Characteristic_Clinical_Trial) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01) (CONF:4388-27048).
36. MAY contain zero or more [0..\*] entry (CONF:4388-14428) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16665).
    2. SHALL contain exactly one [1..1] [Substance Recommended (V4)](#E_Substance_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01) (CONF:4388-27153).
37. MAY contain zero or more [0..\*] entry (CONF:4388-14430) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16666).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:4388-14431).
38. MAY contain zero or more [0..\*] entry (CONF:4388-14471) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16667).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Expired (V3)](#E_Patient_Characteristic_Expired_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01) (CONF:4388-27052).
39. MAY contain zero or more [0..\*] entry (CONF:4388-14565) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16670).
    2. SHALL contain exactly one [1..1] [Family History Organizer QDM (V4)](#E_Family_History_Organizer_QDM_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01) (CONF:4388-27055).
40. MAY contain zero or more [0..\*] entry (CONF:4388-16548) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16674).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Observation Assertion (V4)](#E_Patient_Characteristic_Observation_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01) (CONF:4388-16549).
41. MAY contain zero or more [0..\*] entry (CONF:4388-16556) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16675).
    2. SHALL contain exactly one [1..1] [Discharge Medication (V4)](#E_Discharge_Medication_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01) (CONF:4388-27062).
42. MAY contain zero or more [0..\*] entry (CONF:4388-16574) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16676).
    2. SHALL contain exactly one [1..1] [Care Goal (V4)](#E_Care_Goal_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01) (CONF:4388-27068).
43. MAY contain zero or more [0..\*] entry (CONF:4388-16707) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16708).
    2. SHALL contain exactly one [1..1] [Medication Administered (V4)](#E_Medication_Administered_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01) (CONF:4388-28906).
44. MAY contain zero or more [0..\*] entry (CONF:4388-27079) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-27080).
    2. SHALL contain exactly one [1..1] [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01) (CONF:4388-27081).
45. MAY contain zero or more [0..\*] entry (CONF:4388-28594) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28595).
    2. SHALL contain exactly one [1..1] [Immunization Administered (V2)](#E_Immunization_Administered_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01) (CONF:4388-29138).
46. MAY contain zero or more [0..\*] entry (CONF:4388-28648) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28649).
    2. SHALL contain exactly one [1..1] [Immunization Order (V2)](#E_Immunization_Order_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01) (CONF:4388-28650).
47. MAY contain zero or more [0..\*] entry (CONF:4388-28747) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28748).
    2. SHALL contain exactly one [1..1] [Adverse Event](#E_Adverse_Event_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01) (CONF:4388-28749).
48. MAY contain zero or more [0..\*] entry (CONF:4388-28851) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CONF:4388-28852).
    2. SHALL contain exactly one [1..1] [Allergy Intolerance](#E_Allergy_Intolerance) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01) (CONF:4388-28853).
49. MAY contain zero or more [0..\*] entry (CONF:4388-28953) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28954).
    2. SHALL contain exactly one [1..1] [Provider Characteristic Observation Assertion (V3)](#E_Provider_Characteristic_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01) (CONF:4388-28955).
50. MAY contain zero or more [0..\*] entry (CONF:4388-28979) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28980).
    2. SHALL contain exactly one [1..1] [Program Participation](#E_Program_Participation_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2017-08-01) (CONF:4388-28981).

Patient Data Section QDM (V6) - CMS

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01 (open)]

Draft as part of CMS 2020 QRDA CMS HQR IG

Table 17: Patient Data Section QDM (V6) - CMS Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) (required) |

The Patient Data Section QDM (V6) - CMS contains entries that conform to the QDM approach to QRDA. The four supplemental data elements (ONC Administrative Sex, Race, Ethnicity, and Payer) specified in the eCQMs are required to be reported to CMS. While the administrative sex, race, and ethnicity data are sent in the document header, the payer supplemental data element is submitted using the Patient Characteristic Payer template contained in the patient data section. So the Patient Data Section QDM (V6) - CMS shall contain at least one Patient Characteristic Payer template and at least one entry template that is other than the Patient Characteristic Payer template. As for what entry templates and how many entry templates should be included in the patient data section for the referenced eCQMs, it should adhere to the "smoking gun" philosophy described in the QRDA I standard. This guide follows the specifications of entry templates as defined in the base QRDA I standard.

Table 18: Patient Data Section QDM (V6) - CMS Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4418-28446](#C_4418-28446) |  |
| @root | 1..1 | SHALL |  | [4418-28448](#C_4418-28448) | 2.16.840.1.113883.10.20.24.2.1.1 |
| @extension | 1..1 | SHALL |  | [4418-28449](#C_4418-28449) | 2019-02-01 |
| entry | 1..\* | SHALL |  | [4418-28458](#C_4418-28458) |  |
| entry | 1..\* | SHALL |  | [4418-28456](#C_4418-28456) |  |
| observation | 1..1 | SHALL |  | [4418-28457](#C_4418-28457) | [Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55](#E_Patient_Characteristic_Payer_V1) |

1. Conforms to [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01).
2. SHALL contain exactly one [1..1] templateId (CONF:CMS\_0036) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.1.1" (CONF:CMS\_0037).
   2. SHALL contain exactly one [1..1] @extension="2019-02-01" (CONF:CMS\_0038).
3. SHALL contain at least one [1..\*] entry (CONF:CMS\_0051) such that it
   1. *SHALL* contain exactly one [[]1..1[]] entry template that is other than the Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:CMS\_0039).
4. SHALL contain at least one [1..\*] entry (CONF:4388-14430\_C01) such that it
   1. SHALL contain exactly one [1..1] [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:4388-14431).

Figure 24: Patient Data Section QDM (V6) – CMS

<section>

<!-- Patient Data Section -->

<templateId root="2.16.840.1.113883.10.20.17.2.4" />

<!-- Patient Data Section QDM (V6) -->

<templateId root="2.16.840.1.113883.10.20.24.2.1"

extension="2018-10-01" />

<!-- Patient Data Section QDM (V6) - CMS -->

<templateId root="2.16.840.1.113883.10.20.24.2.1.1"

extension="2019-02-01" />

<code code="55188-7" codeSystem="2.16.840.1.113883.6.1"

displayName="Patient Data"/>

<title>Patient Data</title>

<text>...</text>

<entry typeCode="DRIV">

...

</entry>

<entry typeCode="DRIV">

...

</entry>

<!--supplemental data elements-->

<!-- payer-->

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.55"/>

<id root="a83777f2-0753-4638-9bb4-9d0d4a559a52"/>

<code code="48768-6" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Payment source" />

<statusCode code="completed" />

<effectiveTime>

<low value="20200101" />

<high value="20201231" />

</effectiveTime>

<value xsi:type="CD" code="1"

codeSystem="2.16.840.1.113883.3.221.5"

codeSystemName="Source of Payment Typology"

displayName="Medicare"/>

</observation>

</entry>

...

</section>

Reporting Parameters Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.17.2.1 (open)]

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Table 19: Reporting Parameters Section Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) (required)  [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) (required) | [Reporting Parameters Act](#E_Reporting_Parameters_Act) (required) |

The Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the data being reported. The receiving organization may tell the reporting institution what information is needed in this section. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

Table 20: Reporting Parameters Section Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1) | | | | | |
| templateId | 1..1 | SHALL |  | [23-14611](#C_23-14611) |  |
| @root | 1..1 | SHALL |  | [23-14612](#C_23-14612) | 2.16.840.1.113883.10.20.17.2.1 |
| code | 1..1 | SHALL |  | [23-18191](#C_23-18191) |  |
| @code | 1..1 | SHALL |  | [23-19229](#C_23-19229) | 55187-9 |
| @codeSystem | 1..1 | SHALL |  | [23-26552](#C_23-26552) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [23-4142](#C_23-4142) | Reporting Parameters |
| text | 1..1 | SHALL |  | [23-4143](#C_23-4143) |  |
| entry | 1..1 | SHALL |  | [23-3277](#C_23-3277) |  |
| @typeCode | 1..1 | SHALL |  | [23-3278](#C_23-3278) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| act | 1..1 | SHALL |  | [23-17496](#C_23-17496) | [Reporting Parameters Act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8](#E_Reporting_Parameters_Act) |

1. SHALL contain exactly one [1..1] templateId (CONF:23-14611) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.2.1" (CONF:23-14612).
2. SHALL contain exactly one [1..1] code (CONF:23-18191).
   1. This code SHALL contain exactly one [1..1] @code="55187-9" Reporting Parameters (CONF:23-19229).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:23-26552).
3. SHALL contain exactly one [1..1] title="Reporting Parameters" (CONF:23-4142).
4. SHALL contain exactly one [1..1] text (CONF:23-4143).
5. SHALL contain exactly one [1..1] entry (CONF:23-3277) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:23-3278).
   2. SHALL contain exactly one [1..1] [Reporting Parameters Act](#E_Reporting_Parameters_Act) (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:23-17496).

Reporting Parameters Section - CMS

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01 (open)]

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Table 21: Reporting Parameters Section - CMS Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) (required) | [Reporting Parameters Act - CMS](#E_Reporting_Parameters_Act_CMS) (required) |

The Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the patient data being reported.

Table 22: Reporting Parameters Section - CMS Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01) | | | | | |
| templateId | 1..1 | SHALL |  | [2239-28516](#C_2239-28516) |  |
| @root | 1..1 | SHALL |  | [2239-28518](#C_2239-28518) | 2.16.840.1.113883.10.20.17.2.1.1 |
| @extension | 1..1 | SHALL |  | [2239-28519](#C_2239-28519) | 2016-03-01 |
| entry | 1..1 | SHALL |  | [2239-28515](#C_2239-28515) |  |
| act | 1..1 | SHALL |  | [2239-28517](#C_2239-28517) | [Reporting Parameters Act - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01](#E_Reporting_Parameters_Act_CMS) |

1. Conforms to [Reporting Parameters Section](#S_Reporting_Parameters_Section) template (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1).
2. SHALL contain exactly one [1..1] templateId (CONF:CMS\_0040) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.2.1.1" (CONF:CMS\_0041).
   2. SHALL contain exactly one [1..1] @extension="2016-03-01" (CONF:CMS\_0042).
3. SHALL contain exactly one [1..1] entry (CONF:CMS\_0023) such that it
   1. SHALL contain exactly one [1..1] [Reporting Parameters Act - CMS](#E_Reporting_Parameters_Act_CMS) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01) (CONF:CMS\_0024).

Figure 25: Reporting Parameters Section - CMS and Reporting Parameters Act – CMS Example

<section>

<templateId root="2.16.840.1.113883.10.20.17.2.1"/>

<templateId root="2.16.840.1.113883.10.20.17.2.1.1" extension=”2016-03-01”/>

<code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>

<title>Reporting Parameters</title>

<text>

...

<list>

<item>Reporting period: 01 Jan 2020 – 31 March 2020

</list>

...

</text>

<entry typeCode="DRIV">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.17.3.8"/>

<templateId root="2.16.840.1.113883.10.20.17.3.8.1"

extension=”2016-03-01”/>

<code code="252116004" codeSystem="2.16.840.1.113883.6.96"

displayName="Observation Parameters"/>

<effectiveTime>

<low value="20200101"/>

<high value="20200331"/>

</effectiveTime>

</act>

</entry>

</section>

# entry

Admission Source

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01 (open)]

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Table 23: Admission Source Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Performed (V4)](#E_Encounter_Performed_V4) (optional) |  |

This template represents the source of admission (point of origin) of an encounter.

Table 24: Admission Source Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-29094](#C_3343-29094) | urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = SDLOC |
| templateId | 1..1 | SHALL |  | [3343-29091](#C_3343-29091) |  |
| @root | 1..1 | SHALL |  | [3343-29093](#C_3343-29093) | 2.16.840.1.113883.10.20.24.3.151 |
| @extension | 1..1 | SHALL |  | [3343-29100](#C_3343-29100) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-29099](#C_3343-29099) |  |
| addr | 0..\* | SHOULD |  | [3343-29095](#C_3343-29095) |  |
| telecom | 0..\* | SHOULD |  | [3343-29096](#C_3343-29096) |  |
| playingEntity | 0..1 | MAY |  | [3343-29092](#C_3343-29092) |  |
| @classCode | 1..1 | SHALL |  | [3343-29097](#C_3343-29097) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| name | 0..1 | MAY |  | [3343-29098](#C_3343-29098) |  |

1. SHALL contain exactly one [1..1] @classCode="SDLOC" (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111 STATIC) (CONF:3343-29094).
2. SHALL contain exactly one [1..1] templateId (CONF:3343-29091) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.151" (CONF:3343-29093).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-29100).
3. SHALL contain exactly one [1..1] code (CONF:3343-29099).
4. SHOULD contain zero or more [0..\*] addr (CONF:3343-29095).
5. SHOULD contain zero or more [0..\*] telecom (CONF:3343-29096).
6. MAY contain zero or one [0..1] playingEntity (CONF:3343-29092).
   1. The playingEntity, if present, SHALL contain exactly one [1..1] @classCode="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:3343-29097).
   2. The playingEntity, if present, MAY contain zero or one [0..1] name (CONF:3343-29098).

Figure 26: Admission Source Example

<participantRole classCode="SDLOC">

<templateId root="2.16.840.1.113883.10.20.24.3.151" extension="2017-08-01"/>

<code code="42665001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED" displayName="Nursing home (environment)"/>

<addr>

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-5000"/>

<playingEntity classCode="PLC">

<name>Nursing Home</name>

</playingEntity>

</participantRole>

Adverse Event

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01 (open)]

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Table 25: Adverse Event Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Severity Observation (V2)](#E_Severity_Observation_V2) (optional)  [Facility Location (V2)](#SE_Facility_Location_V2) (optional)  [Adverse Event Cause Observation Assertion](#E_Adverse_Event_Cause_Observation_Asser)  (required)  [Author](#U_Author) (optional) |

This template represents QDM data type: Adverse Event.  
Adverse Event is used to define any untoward medical occurrence associated with the clinical care delivery, whether or not considered drug related.  
The Relevant Period references: startTime – the time the adverse event began, and stopTime – the time the adverse event completed  
The cause of the adverse event is represented via an entryRelationship of type “CAUS” (has cause).

Table 26: Adverse Event Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28773](#C_3343-28773) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28774](#C_3343-28774) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28776](#C_3343-28776) |  |
| templateId | 1..1 | SHALL |  | [3343-28751](#C_3343-28751) |  |
| @root | 1..1 | SHALL |  | [3343-28761](#C_3343-28761) | 2.16.840.1.113883.10.20.24.3.146 |
| @extension | 1..1 | SHALL |  | [3343-28762](#C_3343-28762) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-28775](#C_3343-28775) |  |
| code | 1..1 | SHALL |  | [3343-28752](#C_3343-28752) |  |
| @code | 1..1 | SHALL |  | [3343-28763](#C_3343-28763) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28764](#C_3343-28764) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3343-28753](#C_3343-28753) |  |
| @code | 1..1 | SHALL |  | [3343-28765](#C_3343-28765) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-28754](#C_3343-28754) |  |
| low | 1..1 | SHALL |  | [3343-28766](#C_3343-28766) |  |
| high | 0..1 | SHOULD |  | [3343-28767](#C_3343-28767) |  |
| value | 1..1 | SHALL | CD | [3343-28756](#C_3343-28756) |  |
| @code | 1..1 | SHALL |  | [3343-28771](#C_3343-28771) | 281647001 |
| @codeSystem | 1..1 | SHALL |  | [3343-28772](#C_3343-28772) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| author | 0..1 | MAY |  | [3343-28779](#C_3343-28779) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [3343-28780](#C_3343-28780) | [Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01](#SE_Facility_Location_V2) |
| entryRelationship | 1..1 | SHALL |  | [3343-28755](#C_3343-28755) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28768](#C_3343-28768) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| @inversionInd | 1..1 | SHALL |  | [3343-28769](#C_3343-28769) | true |
| observation | 1..1 | SHALL |  | [3343-28770](#C_3343-28770) | [Adverse Event Cause Observation Assertion (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01](#E_Adverse_Event_Cause_Observation_Asser) |
| entryRelationship | 0..1 | SHOULD |  | [3343-28750](#C_3343-28750) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28759](#C_3343-28759) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = MFST |
| @inversionInd | 1..1 | SHALL |  | [3343-28760](#C_3343-28760) | true |
| observation | 1..1 | SHALL |  | [3343-28758](#C_3343-28758) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |
| entryRelationship | 0..1 | MAY |  | [3343-28757](#C_3343-28757) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28777](#C_3343-28777) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-28778](#C_3343-28778) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09](#E_Severity_Observation_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28773).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28774).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28776).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28751) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.146" (CONF:3343-28761).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28762).
5. SHALL contain at least one [1..\*] id (CONF:3343-28775).
6. SHALL contain exactly one [1..1] code (CONF:3343-28752).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3343-28763).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28764).
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-28753).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-28765).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28754).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-28766).  
      Note: startTime - the time the adverse event began
   2. This effectiveTime SHOULD contain zero or one [0..1] high (CONF:3343-28767).  
      Note: stopTime - the time the adverse event completed
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-28756).
   1. This value SHALL contain exactly one [1..1] @code="281647001" Adverse reaction (CONF:3343-28771).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" SNOMED CT (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-28772).
10. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28779).  
    Note: QDM Attribute: Author dateTime - the time the adverse event was entered into the clinical software
11. MAY contain zero or one [0..1] [Facility Location (V2)](#SE_Facility_Location_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:3343-28780).  
    Note: QDM Attribute: Facility Locations
12. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28755) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" Is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28768).
    2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3343-28769).
    3. SHALL contain exactly one [1..1] [Adverse Event Cause Observation Assertion](#E_Adverse_Event_Cause_Observation_Asser)  (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01) (CONF:3343-28770).
13. SHOULD contain zero or one [0..1] entryRelationship (CONF:3343-28750) such that it  
    Note: QDM Attribute: Type
    1. SHALL contain exactly one [1..1] @typeCode="MFST" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28759).
    2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3343-28760).
    3. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:3343-28758).
14. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28757) such that it  
    Note: QDM Attribute: Severity
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28777).
    2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:3343-28778).

Figure 27: Adverse Event Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.146" extension="2017-08-01"/>

<id root="508d3dc6-4883-480c-bf03-419daed0b02f"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" displayName="Assertion"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - startTime -->

<low value="201702021030"/>

<!-- QDM Attribute: Relevant Period - stopTime -->

<high value="201702021030"/>

</effectiveTime>

<value xsi:type="CD" code="281647001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Adverse reaction"/>

<participant typeCode="LOC">

<!-- Facility Location (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2017-08-01"/>

<time>

<!-- QDM Attribute: Location Period -->

<low value="20170202"/>

<high value="20170202"/>

</time>

<participantRole classCode="SDLOC">

<code code="309905000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Adult Intensive Care Unit"/>

</participantRole>

</participant>

<!-- QDM Attribute: Code -->

<entryRelationship typeCode="CAUS" inversionInd="true">

<!-- Adverse Event Cause Assertion Observation -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.148" extension="2017-08-01"/>

<id root="2fbe77d3-0093-4ea3-bd78-b280f91fd765"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" displayName="Assertion"/>

<value xsi:type="CD" code="444179007" codeSystem="2.16.840.1.113883.6.96"

displayName="Insertion of dual chamber pacemaker pulse generator (procedure)"/>

</observation>

</entryRelationship>

</observation>

Adverse Event Cause Observation Assertion

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01 (open)]

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Table 27: Adverse Event Cause Observation Assertion Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Adverse Event](#E_Adverse_Event_V1) (required) |  |

This template represents the Adverse Event QDM data types' Code attribute.

Table 28: Adverse Event Cause Observation Assertion Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28741](#C_3343-28741) | OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28742](#C_3343-28742) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28745](#C_3343-28745) |  |
| templateId | 1..1 | SHALL |  | [3343-28731](#C_3343-28731) |  |
| @root | 1..1 | SHALL |  | [3343-28736](#C_3343-28736) | 2.16.840.1.113883.10.20.24.3.148 |
| @extension | 1..1 | SHALL |  | [3343-28737](#C_3343-28737) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28730](#C_3343-28730) |  |
| @code | 1..1 | SHALL |  | [3343-28734](#C_3343-28734) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28735](#C_3343-28735) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [3343-28733](#C_3343-28733) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-28741).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28742).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28745).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28731) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.148" (CONF:3343-28736).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28737).
5. SHALL contain exactly one [1..1] code (CONF:3343-28730).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:3343-28734).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28735).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-28733).

Figure 28: Adverse Event Cause Observation Assertion Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.148" extension="2017-08-01" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD" code="93880001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Primary malignant neoplasm of lung (disorder)" />

</observation>

Age Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.31 (open)]

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Table 29: Age Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Family History Observation (V3)](#E_Family_History_Observation_V3) (optional)  [Problem Observation (V3)](#E_Problem_Observation_V3) (optional) |  |

This Age Observation represents the subject's age at onset of an event or observation. The age of a relative in a Family History Observation at the time of that observation could also be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime. However, a common scenario is that a patient will know the age of a relative when the relative had a certain condition or when the relative died, but will not know the actual year (e.g., "grandpa died of a heart attack at the age of 50"). Often times, neither precise dates nor ages are known (e.g., "cousin died of congenital heart disease as an infant").

Table 30: Age Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7613](#C_81-7613) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-7614](#C_81-7614) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-7899](#C_81-7899) |  |
| @root | 1..1 | SHALL |  | [81-10487](#C_81-10487) | 2.16.840.1.113883.10.20.22.4.31 |
| code | 1..1 | SHALL |  | [81-7615](#C_81-7615) |  |
| @code | 1..1 | SHALL |  | [81-16776](#C_81-16776) | 445518008 |
| @codeSystem | 1..1 | SHALL |  | [81-26499](#C_81-26499) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [81-15965](#C_81-15965) |  |
| @code | 1..1 | SHALL |  | [81-15966](#C_81-15966) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | PQ | [81-7617](#C_81-7617) |  |
| @unit | 1..1 | SHALL | CS | [81-7618](#C_81-7618) | urn:oid:2.16.840.1.113883.11.20.9.21 (AgePQ\_UCUM) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-7613).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-7614).
3. SHALL contain exactly one [1..1] templateId (CONF:81-7899) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.31" (CONF:81-10487).
4. SHALL contain exactly one [1..1] code (CONF:81-7615).
   1. This code SHALL contain exactly one [1..1] @code="445518008" Age At Onset (CONF:81-16776).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26499).
5. SHALL contain exactly one [1..1] statusCode (CONF:81-15965).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-15966).
6. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:81-7617).
   1. This value SHALL contain exactly one [1..1] @unit, which SHALL be selected from ValueSet AgePQ\_UCUM urn:oid:2.16.840.1.113883.11.20.9.21 DYNAMIC (CONF:81-7618).

Figure 29: Age Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.31" />

<!-- Age observation -->

<code code="445518008"

codeSystem="2.16.840.1.113883.6.96"

displayName="Age At Onset" />

<statusCode code="completed" />

<value xsi:type="PQ" value="57" unit="a" />

</observation>

Allergy Status Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.28 (open)]

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Table 31: Allergy Status Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) (optional) |  |

This template represents the status of the allergy indicating whether it is active, no longer active, or is an historic allergy. There can be only one allergy status observation per alert observation.

Table 32: Allergy Status Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7318](#C_81-7318) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-7319](#C_81-7319) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-7317](#C_81-7317) |  |
| @root | 1..1 | SHALL |  | [81-10490](#C_81-10490) | 2.16.840.1.113883.10.20.22.4.28 |
| code | 1..1 | SHALL |  | [81-7320](#C_81-7320) |  |
| @code | 1..1 | SHALL |  | [81-19131](#C_81-19131) | 33999-4 |
| @codeSystem | 1..1 | SHALL |  | [81-26500](#C_81-26500) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [81-7321](#C_81-7321) |  |
| @code | 1..1 | SHALL |  | [81-19087](#C_81-19087) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CE | [81-7322](#C_81-7322) | urn:oid:2.16.840.1.113883.3.88.12.80.68 (Problem Status) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-7318).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-7319).
3. SHALL contain exactly one [1..1] templateId (CONF:81-7317) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.28" (CONF:81-10490).
4. SHALL contain exactly one [1..1] code (CONF:81-7320).
   1. This code SHALL contain exactly one [1..1] @code="33999-4" Status (CONF:81-19131).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26500).
5. SHALL contain exactly one [1..1] statusCode (CONF:81-7321).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-19087).
6. SHALL contain exactly one [1..1] value with @xsi:type="CE", where the code SHALL be selected from ValueSet Problem Status urn:oid:2.16.840.1.113883.3.88.12.80.68 DYNAMIC (CONF:81-7322).

Figure 30: Allergy Status Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.28" />

<!-- Allergy status observation template -->

<code code="33999-4"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Status" />

<statusCode code="completed" />

<value xsi:type="CE" code="55561003"

codeSystem="2.16.840.1.113883.6.96"

displayName="Active" />

</observation>

Assessment Performed (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01 (open)]

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Table 33: Assessment Performed (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Component](#E_Component) (optional)  [Related To](#SE_Related_To) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Assessment, Performed.  
Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions. The Assessment Performed template represents the completion of an assessment.  
QDM attribute: Author dateTime is the time the assessment is completed.  
QDM attribute: Component. Elements included or documented as part of assessment. Examples include: specific questions included in assessments. Each assessment may have one or more components.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.  
This template could also be used to represent occupational data for health such as current industry, occupation, and employment status.

Table 34: Assessment Performed (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28670](#C_3343-28670) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28669](#C_3343-28669) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28671](#C_3343-28671) |  |
| templateId | 1..1 | SHALL |  | [3343-28652](#C_3343-28652) |  |
| @root | 1..1 | SHALL |  | [3343-28660](#C_3343-28660) | 2.16.840.1.113883.10.20.24.3.144 |
| @extension | 1..1 | SHALL |  | [3343-28701](#C_3343-28701) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28656](#C_3343-28656) |  |
| statusCode | 1..1 | SHALL |  | [3343-28653](#C_3343-28653) |  |
| @code | 1..1 | SHALL |  | [3343-28662](#C_3343-28662) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 0..1 | MAY |  | [3343-28782](#C_3343-28782) |  |
| methodCode | 0..1 | MAY |  | [3343-28781](#C_3343-28781) |  |
| author | 0..1 | MAY |  | [3343-28783](#C_3343-28783) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-28651](#C_3343-28651) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28659](#C_3343-28659) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-28658](#C_3343-28658) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..\* | MAY |  | [3343-28800](#C_3343-28800) |  |
| observation | 1..1 | SHALL |  | [3343-28801](#C_3343-28801) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01](#E_Component) |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [3343-29119](#C_3343-29119) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28670).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28669).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28671).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28652) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.144" (CONF:3343-28660).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28701).
5. SHALL contain exactly one [1..1] code (CONF:3343-28656).  
   Note: QDM Attribute: Code
6. SHALL contain exactly one [1..1] statusCode (CONF:3343-28653).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-28662).
7. MAY contain zero or one [0..1] value (CONF:3343-28782).  
   Note: QDM Attribute: Result
8. MAY contain zero or one [0..1] methodCode (CONF:3343-28781).  
   Note: QDM Attribute: Method
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28783).  
   Note: QDM Attribute: Author dateTime - the time the assessment is completed
10. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28651) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28659).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-28658).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:3343-28800) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] [Component](#E_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:3343-28801).
12. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:3343-29119).  
    Note: QDM Attribute: relatedTo

Figure 31: Assessment Performed (V2) Example

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<!-- Assessment Performed (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.144" extension="2017-08-01"/>

<id root="d55c711a-f958-4807-bdb6-45fe5b6195c0" />

<code code="35088-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"

displayName="Glasgow Coma Scale"/>

<text>Assessment Performed: Glasgow Coma Scale Assessment</text>

<statusCode code="completed" />

<author>

<!-- QDM Attribute: Author dateTime -->

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201706101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<entryRelationship typeCode="REFR">

<!-- Components -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>

<id root="bd54c4c7-49b8-47e4-b2d5-9d2b64c413b9"/>

<code code="9267-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow Coma score eye opening"/>

<!--<value xsi:type="INT">1</value>-->

<value xsi:type="CD" code="LA6553-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="No eye opening"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Components -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>

<id root="204c9596-35a9-4e71-aa65-ac638c76be7d"/>

<code code="9268-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow Coma score motor"/>

<!--<value xsi:type="INT">3</value>-->

<value xsi:type="CD" code="LA6564-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Flexion to pain"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Component -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>

<id root="5e555fa2-72cb-45a0-9d5b-968a2d3b9b44"/>

<code code="9270-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow Coma score verbal"/>

<!--<value xsi:type="INT">4</value>-->

<value xsi:type="CD" code="LA6560-2" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Confused"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Component -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>

<id root="63bb6f9e-fb84-4b2b-a1aa-780d2c021c12"/>

<code code="9270-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow Coma score total"/>

<value xsi:type="INT" value="8"/>

</observation>

</entryRelationship>

</observation>

</entry>

Communication from Patient to Provider (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.2:2017-08-01 (open)]

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Table 35: Communication from Patient to Provider (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Related To](#SE_Related_To) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Communication from Patient to Provider.  
Communication from Patient to Provider is communication initiated by the patient and received by the provider. A time/date stamp is required.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

Table 36: Communication from Patient to Provider (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.2:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11484](#C_3343-11484) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-11485](#C_3343-11485) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28043](#C_3343-28043) |  |
| templateId | 1..1 | SHALL |  | [3343-11486](#C_3343-11486) |  |
| @root | 1..1 | SHALL |  | [3343-11487](#C_3343-11487) | 2.16.840.1.113883.10.20.24.3.2 |
| @extension | 1..1 | SHALL |  | [3343-27275](#C_3343-27275) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-11619](#C_3343-11619) |  |
| code | 1..1 | SHALL |  | [3343-26946](#C_3343-26946) |  |
| statusCode | 1..1 | SHALL |  | [3343-11620](#C_3343-11620) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| author | 1..1 | SHALL |  | [3343-28919](#C_3343-28919) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-11631](#C_3343-11631) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11632](#C_3343-11632) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| participantRole | 1..1 | SHALL |  | [3343-11633](#C_3343-11633) |  |
| @classCode | 1..1 | SHALL |  | [3343-12098](#C_3343-12098) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| code | 1..1 | SHALL |  | [3343-11651](#C_3343-11651) |  |
| @code | 1..1 | SHALL |  | [3343-27272](#C_3343-27272) | 158965000 |
| @codeSystem | 1..1 | SHALL |  | [3343-26945](#C_3343-26945) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participant | 1..1 | SHALL |  | [3343-11835](#C_3343-11835) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12099](#C_3343-12099) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| participantRole | 1..1 | SHALL |  | [3343-11836](#C_3343-11836) |  |
| @classCode | 1..1 | SHALL |  | [3343-12100](#C_3343-12100) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PAT |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [3343-29116](#C_3343-29116) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11484).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11485).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28043).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11486) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.2" (CONF:3343-11487).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27275).
5. SHALL contain at least one [1..\*] id (CONF:3343-11619).
6. SHALL contain exactly one [1..1] code (CONF:3343-26946).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode="completed", which SHALL be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:3343-11620).
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28919).  
   Note: QDM Attribute: Author dateTime - the time that the communication occurs or is sent
9. SHALL contain exactly one [1..1] participant (CONF:3343-11631) such that it
   1. SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-11632).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11633).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="ASSIGNED" assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12098).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:3343-11651).
         1. This code SHALL contain exactly one [1..1] @code="158965000" Medical practitioner (CONF:3343-27272).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-26945).
10. SHALL contain exactly one [1..1] participant (CONF:3343-11835) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" author (originator) (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-12099).
    2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11836).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="PAT" patient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12100).
11. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:3343-29116).  
    Note: QDM Attribute: relatedTo

Figure 32: Communication from Patient to Provider (V4) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.2" extension="2017-08-01"/>

<id root="2d5075da-2ffc-47a9-a350-4a24e6b052d1"/>

<code code="401270003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="E-mail received from patient (event)"/>

<statusCode code="completed"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="AUT">

<participantRole classCode="PAT">

<code code="116154003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Patient"/>

</participantRole>

</participant>

<participant typeCode="IRCP">

<participantRole classCode="ASSIGNED">

<code code="158965000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Medical Practitioner"/>

</participantRole>

</participant>

<!-- QDM Attribute: Related to -->

<sdtc:inFulfillmentOf1 typeCode="FLFS">

<sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>

<sdtc:actReference classCode="SPLY" moodCode="RQO">

<!-- For example, the id is the same as the id of another QDM element instance contained in the same QRDA I document being referenced -->

<sdtc:id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

</sdtc:actReference>

</sdtc:inFulfillmentOf1>

</act>

Communication from Provider to Patient (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.3:2017-08-01 (open)]

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Table 37: Communication from Provider to Patient (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Related To](#SE_Related_To) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Communication from Provider to Patient.  
Communication from Provider to Patient is the provision of any communication to the patient (e.g., results, findings, plans for care, medical advice, instructions, educational resources, appointments, result).  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

Table 38: Communication from Provider to Patient (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.3:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11840](#C_3343-11840) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-11841](#C_3343-11841) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28044](#C_3343-28044) |  |
| templateId | 1..1 | SHALL |  | [3343-11842](#C_3343-11842) |  |
| @root | 1..1 | SHALL |  | [3343-11843](#C_3343-11843) | 2.16.840.1.113883.10.20.24.3.3 |
| @extension | 1..1 | SHALL |  | [3343-27280](#C_3343-27280) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-11845](#C_3343-11845) |  |
| code | 1..1 | SHALL |  | [3343-26947](#C_3343-26947) |  |
| statusCode | 1..1 | SHALL |  | [3343-11846](#C_3343-11846) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| author | 1..1 | SHALL |  | [3343-28920](#C_3343-28920) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-11850](#C_3343-11850) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11851](#C_3343-11851) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| participantRole | 1..1 | SHALL |  | [3343-11852](#C_3343-11852) |  |
| @classCode | 1..1 | SHALL |  | [3343-12101](#C_3343-12101) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| code | 1..1 | SHALL |  | [3343-11853](#C_3343-11853) |  |
| @code | 1..1 | SHALL |  | [3343-26948](#C_3343-26948) | 158965000 |
| @codeSystem | 1..1 | SHALL |  | [3343-26949](#C_3343-26949) | 2.16.840.1.113883.6.96 |
| participant | 1..1 | SHALL |  | [3343-11856](#C_3343-11856) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11857](#C_3343-11857) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| participantRole | 1..1 | SHALL |  | [3343-11858](#C_3343-11858) |  |
| @classCode | 1..1 | SHALL |  | [3343-12102](#C_3343-12102) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PAT |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [3343-29117](#C_3343-29117) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11840).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11841).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28044).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11842) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.3" (CONF:3343-11843).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27280).
5. SHALL contain at least one [1..\*] id (CONF:3343-11845).
6. SHALL contain exactly one [1..1] code (CONF:3343-26947).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-11846).
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28920).  
   Note: QDM Attribute: Author dateTime - the time that the communication occurs or is sent
9. SHALL contain exactly one [1..1] participant (CONF:3343-11850) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" author (originator) (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-11851).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11852).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="ASSIGNED" assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12101).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:3343-11853).
         1. This code SHALL contain exactly one [1..1] @code="158965000" Medical practitioner (CONF:3343-26948).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:3343-26949).
10. SHALL contain exactly one [1..1] participant (CONF:3343-11856) such that it
    1. SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-11857).
    2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11858).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="PAT" patient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12102).
11. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:3343-29117).  
    Note: QDM Attribute: relatedTo

Figure 33: Communication from Provider to Patient (V4) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.3" extension="2017-08-01"/>

<id root="e4f3f0f7-cc24-4f2a-8c5f-097dde3d7afa"/>

<code code="428521000124106" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Patient informed - arrange follow-up care (situation)"/>

<statusCode code="completed"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="AUT">

<participantRole classCode="ASSIGNED">

<code code="158965000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Medical Practitioner"/>

</participantRole>

</participant>

<participant typeCode="IRCP">

<participantRole classCode="PAT"/>

</participant>

</act>

Communication from Provider to Provider (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.4:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 39: Communication from Provider to Provider (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Related To](#SE_Related_To) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Communication from Provider to Provider.  
Communication from Provider to Provider is the provision of any communication from one clinician to another regarding findings, assessments, plans of care, consultative advice, instructions, educational resources, etc.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

Table 40: Communication from Provider to Provider (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.4:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11816](#C_3343-11816) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-11817](#C_3343-11817) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28045](#C_3343-28045) |  |
| templateId | 1..1 | SHALL |  | [3343-11818](#C_3343-11818) |  |
| @root | 1..1 | SHALL |  | [3343-11819](#C_3343-11819) | 2.16.840.1.113883.10.20.24.3.4 |
| @extension | 1..1 | SHALL |  | [3343-27285](#C_3343-27285) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-11821](#C_3343-11821) |  |
| code | 1..1 | SHALL |  | [3343-26950](#C_3343-26950) |  |
| statusCode | 1..1 | SHALL |  | [3343-11822](#C_3343-11822) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| author | 1..1 | SHALL |  | [3343-28921](#C_3343-28921) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-11827](#C_3343-11827) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11828](#C_3343-11828) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| participantRole | 1..1 | SHALL |  | [3343-11829](#C_3343-11829) |  |
| @classCode | 1..1 | SHALL |  | [3343-12096](#C_3343-12096) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| code | 1..1 | SHALL |  | [3343-11830](#C_3343-11830) |  |
| @code | 1..1 | SHALL |  | [3343-26951](#C_3343-26951) | 158965000 |
| @codeSystem | 1..1 | SHALL |  | [3343-26952](#C_3343-26952) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participant | 1..1 | SHALL |  | [3343-11837](#C_3343-11837) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11838](#C_3343-11838) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| participantRole | 1..1 | SHALL |  | [3343-11839](#C_3343-11839) |  |
| @classCode | 1..1 | SHALL |  | [3343-12097](#C_3343-12097) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| code | 1..1 | SHALL |  | [3343-12103](#C_3343-12103) |  |
| @code | 1..1 | SHALL |  | [3343-26953](#C_3343-26953) | 158965000 |
| @codeSystem | 1..1 | SHALL |  | [3343-26954](#C_3343-26954) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [3343-29118](#C_3343-29118) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11816).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11817).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28045).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11818) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.4" (CONF:3343-11819).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27285).
5. SHALL contain at least one [1..\*] id (CONF:3343-11821).
6. SHALL contain exactly one [1..1] code (CONF:3343-26950).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-11822).
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28921).  
   Note: QDM Attribute: Author dateTime - the time that the communication occurs or is sent
9. SHALL contain exactly one [1..1] participant (CONF:3343-11827) such that it
   1. SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-11828).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11829).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="ASSIGNED" assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12096).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:3343-11830).
         1. This code SHALL contain exactly one [1..1] @code="158965000" Medical practitioner (CONF:3343-26951).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-26952).
10. SHALL contain exactly one [1..1] participant (CONF:3343-11837) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" author (originator) (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-11838).
    2. SHALL contain exactly one [1..1] participantRole (CONF:3343-11839).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="ASSIGNED" assigned entity (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12097).
       2. This participantRole SHALL contain exactly one [1..1] code (CONF:3343-12103).
          1. This code SHALL contain exactly one [1..1] @code="158965000" Medical practitioner (CONF:3343-26953).
          2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-26954).
11. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:3343-29118).  
    Note: QDM Attribute: relatedTo

Figure 34: Communication from Provider to Provider (V4) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.4" extension="2017-08-01"/>

<id root="2d5075da-2ffc-47a9-a350-4a24e6b052d1"/>

<code code="371530004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Clinical consultation report (record artifact)"/>

<statusCode code="completed"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="AUT">

<participantRole classCode="ASSIGNED">

<code code="158965000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Medical Practitioner"/>

</participantRole>

</participant>

<participant typeCode="IRCP">

<participantRole classCode="ASSIGNED">

<code code="158965000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Medical Practitioner"/>

</participantRole>

</participant>

</act>

Communication Performed

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 41: Communication Performed Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Related To](#SE_Related_To) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Communication, Performed.  
To meet criteria using this datatype, the communication indicated by the Communication QDM category is a conveyance of information from one entity (e.g., person, organization, or device) to another.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

Table 42: Communication Performed Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-29160](#C_4388-29160) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4388-29161](#C_4388-29161) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [4388-29164](#C_4388-29164) |  |
| templateId | 1..1 | SHALL |  | [4388-29143](#C_4388-29143) |  |
| @root | 1..1 | SHALL |  | [4388-29151](#C_4388-29151) | 2.16.840.1.113883.10.20.24.3.156 |
| @extension | 1..1 | SHALL |  | [4388-29152](#C_4388-29152) | 2018-10-01 |
| id | 1..\* | SHALL |  | [4388-29162](#C_4388-29162) |  |
| code | 1..1 | SHALL |  | [4388-29159](#C_4388-29159) |  |
| statusCode | 1..1 | SHALL |  | [4388-29163](#C_4388-29163) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY |  | [4388-29165](#C_4388-29165) |  |
| low | 1..1 | SHALL |  | [4388-29170](#C_4388-29170) |  |
| high | 0..1 | MAY |  | [4388-29171](#C_4388-29171) |  |
| author | 1..1 | SHALL |  | [4388-29149](#C_4388-29149) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [4388-29144](#C_4388-29144) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29156](#C_4388-29156) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| participantRole | 1..1 | SHALL |  | [4388-29145](#C_4388-29145) |  |
| code | 1..1 | SHALL |  | [4388-29146](#C_4388-29146) |  |
| @code | 1..1 | SHALL |  | [4388-29153](#C_4388-29153) | 158965000 |
| @codeSystem | 1..1 | SHALL |  | [4388-29154](#C_4388-29154) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participant | 0..1 | MAY |  | [4388-29147](#C_4388-29147) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29158](#C_4388-29158) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| participantRole | 1..1 | SHALL |  | [4388-29148](#C_4388-29148) |  |
| code | 1..1 | SHALL |  | [4388-29172](#C_4388-29172) |  |
| participant | 0..1 | MAY |  | [4388-29166](#C_4388-29166) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29173](#C_4388-29173) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VIA |
| participantRole | 1..1 | SHALL |  | [4388-29167](#C_4388-29167) |  |
| code | 1..1 | SHALL |  | [4388-29174](#C_4388-29174) |  |
| entryRelationship | 0..1 | MAY |  | [4388-29168](#C_4388-29168) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29175](#C_4388-29175) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-29169](#C_4388-29169) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [4388-29150](#C_4388-29150) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-29160).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-29161).
3. MAY contain zero or one [0..1] @negationInd (CONF:4388-29164).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4388-29143) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.156" (CONF:4388-29151).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-29152).
5. SHALL contain at least one [1..\*] id (CONF:4388-29162).
6. SHALL contain exactly one [1..1] code (CONF:4388-29159).  
   Note: QDM Attribute: Category
7. SHALL contain exactly one [1..1] statusCode="completed", which SHALL be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:4388-29163).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4388-29165).  
   Note: QDM Attribute: Relevant Period
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:4388-29170).  
      Note: Start dateTime - the time the communication is sent
   2. The effectiveTime, if present, MAY contain zero or one [0..1] high (CONF:4388-29171).  
      Note: Stop dateTime – the time the communication is received
9. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-29149).  
   Note: QDM Attribute: Author dateTime - the time that the communication occurs or is sent
10. MAY contain zero or one [0..1] participant (CONF:4388-29144) such that it
    1. SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4388-29156).
    2. SHALL contain exactly one [1..1] participantRole (CONF:4388-29145).
       1. This participantRole SHALL contain exactly one [1..1] code (CONF:4388-29146).  
          Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
          1. This code SHALL contain exactly one [1..1] @code="158965000" Medical practitioner (CONF:4388-29153).
          2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4388-29154).
11. MAY contain zero or one [0..1] participant (CONF:4388-29147) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" author (originator) (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4388-29158).
    2. SHALL contain exactly one [1..1] participantRole (CONF:4388-29148).
       1. This participantRole SHALL contain exactly one [1..1] code (CONF:4388-29172).  
          Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
12. MAY contain zero or one [0..1] participant (CONF:4388-29166) such that it
    1. SHALL contain exactly one [1..1] @typeCode="VIA" via (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4388-29173).
    2. SHALL contain exactly one [1..1] participantRole (CONF:4388-29167).
       1. This participantRole SHALL contain exactly one [1..1] code (CONF:4388-29174).  
          Note: QDM Attribute: Medium - A channel used for a communication (e.g., fax, email, etc.)
13. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29168) such that it  
    Note: QDM Attribute: Code
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29175).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-29169).
14. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4388-29150).  
    Note: QDM Attribute: relatedTo

Figure 35: Communication Performed Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.156" extension="2018-10-01"/>

<id root="2d5075da-2ffc-47a9-a350-4a24e6b052d1"/>

<code code="401270003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="E-mail received from patient (event)"/>

<statusCode code="completed"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2018050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="AUT">

<participantRole>

<code code="116154003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Patient"/>

</participantRole>

</participant>

<participant typeCode="IRCP">

<participantRole>

<code code="158965000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Medical Practitioner"/>

</participantRole>

</participant>

<!-- QDM Attribute: Related to -->

<sdtc:inFulfillmentOf1 typeCode="FLFS">

<sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>

<sdtc:actReference classCode="SPLY" moodCode="RQO">

<!-- For example, the id is the same as the id of another QDM element instance contained in the same QRDA I document being referenced -->

<sdtc:id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

</sdtc:actReference>

</sdtc:inFulfillmentOf1>

</act>

Component

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 (open)]

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Table 43: Component Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Assessment Performed (V2)](#E_Assessment_Performed_V2) (optional)  [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) (optional)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional) |  |

Elements included or documented as part of evaluations or test panels. Examples include: specific questions included in assessments, tests included in a laboratory test panel, observations included in a cardiac exam during a physical examination. Each assessment, diagnostic study, laboratory test, physical exam or procedure may have one or more components.  
Laboratory test may have reference range.

Table 44: Component Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28788](#C_3343-28788) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28789](#C_3343-28789) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-28786](#C_3343-28786) |  |
| @root | 1..1 | SHALL |  | [3343-28793](#C_3343-28793) | 2.16.840.1.113883.10.20.24.3.149 |
| @extension | 1..1 | SHALL |  | [3343-28796](#C_3343-28796) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-28797](#C_3343-28797) |  |
| code | 1..1 | SHALL |  | [3343-28784](#C_3343-28784) |  |
| value | 1..1 | SHALL |  | [3343-28785](#C_3343-28785) |  |
| referenceRange | 0..1 | MAY |  | [3343-28794](#C_3343-28794) |  |
| observationRange | 1..1 | SHALL |  | [3343-28795](#C_3343-28795) |  |
| code | 0..0 | SHALL NOT |  | [3343-28798](#C_3343-28798) |  |
| value | 1..1 | SHALL |  | [3343-28799](#C_3343-28799) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3343-28788).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3343-28789).
3. SHALL contain exactly one [1..1] templateId (CONF:3343-28786) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.149" (CONF:3343-28793).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28796).
4. SHALL contain at least one [1..\*] id (CONF:3343-28797).
5. SHALL contain exactly one [1..1] code (CONF:3343-28784).  
   Note: QDM Attribute: Code
6. SHALL contain exactly one [1..1] value (CONF:3343-28785).  
   Note: QDM Attribute: Result
7. MAY contain zero or one [0..1] referenceRange (CONF:3343-28794).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:3343-28795).
      1. This observationRange SHALL NOT contain [0..0] code (CONF:3343-28798).
      2. This observationRange SHALL contain exactly one [1..1] value (CONF:3343-28799).

Figure 36: Component Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.149" extension="2017-08-01"/>

<id root="63bb6f9e-fb84-4b2b-a1aa-780d2c021c12"/>

<code code="9270-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow Coma score total"/>

<value xsi:type="INT" value="8"/>

</observation>

Criticality Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.145 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 45: Criticality Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) (optional) |  |

This observation represents the gravity of the potential risk for future life-threatening adverse reactions when exposed to a substance known to cause an adverse reaction in that individual. When the worst case result is assessed to have a life-threatening or organ system threatening potential, it is considered to be of high criticality.

Table 46: Criticality Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-32921](#C_81-32921) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-32922](#C_81-32922) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-32918](#C_81-32918) |  |
| @root | 1..1 | SHALL |  | [81-32923](#C_81-32923) | 2.16.840.1.113883.10.20.22.4.145 |
| code | 1..1 | SHALL |  | [81-32919](#C_81-32919) |  |
| @code | 1..1 | SHALL |  | [81-32925](#C_81-32925) | 82606-5 |
| @codeSystem | 1..1 | SHALL |  | [81-32926](#C_81-32926) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [81-32920](#C_81-32920) |  |
| @code | 1..1 | SHALL |  | [81-32927](#C_81-32927) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [81-32928](#C_81-32928) | urn:oid:2.16.840.1.113883.1.11.20549 (Criticality Observation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-32921).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-32922).
3. SHALL contain exactly one [1..1] templateId (CONF:81-32918) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.145" (CONF:81-32923).
4. SHALL contain exactly one [1..1] code (CONF:81-32919).
   1. This code SHALL contain exactly one [1..1] @code="82606-5" Criticality (CONF:81-32925).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32926).
5. SHALL contain exactly one [1..1] statusCode (CONF:81-32920).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-32927).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Criticality Observation urn:oid:2.16.840.1.113883.1.11.20549 STATIC 2015-08-01 (CONF:81-32928).

Figure 37: Criticality Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.145"/>

<code code="82606-5" codeSystem="2.16.840.1.113883.6.1"

displayName="Criticality" />

<text>

<reference value="#criticality"/>

</text>

<statusCode code="completed"/>

<value xsi:type="CD" code="High" displayName="High Criticality - NEED PROPER

CODE" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

</observation>

Days Supplied

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01 (open)]

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Table 47: Days Supplied Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Discharge Medication (V4)](#E_Discharge_Medication_V4) (optional)  [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) (optional)  [Medication Order (V5)](#E_Medication_Order_V5) (optional) |  |

This template represents QDM attribute: Days Supplied.  
Amount of medication expressed as a timing amount, i.e., the number of days over which the medication is expected to last.

Table 48: Days Supplied Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-29196](#C_4388-29196) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [4388-29197](#C_4388-29197) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4388-29179](#C_4388-29179) |  |
| @root | 1..1 | SHALL |  | [4388-29198](#C_4388-29198) | 2.16.840.1.113883.10.20.24.3.157 |
| @extension | 1..1 | SHALL |  | [4388-29199](#C_4388-29199) | 2018-10-01 |
| quantity | 1..1 | SHALL |  | [4388-29211](#C_4388-29211) |  |

1. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4388-29196).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4388-29197).
3. SHALL contain exactly one [1..1] templateId (CONF:4388-29179) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.157" (CONF:4388-29198).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-29199).
4. SHALL contain exactly one [1..1] quantity (CONF:4388-29211).

Figure 38: Days Supplied Example

<supply classCode="SPLY" moodCode="EVN">

<!—Days Supplied -->

<templateId root="2.16.840.1.113883.10.20.24.3.157" extension="2018-10-01"/>

<id root="6fc75044-6dc4-4ef6-b1e4-736c951cdfe4"/>

<quantity value="10" unit="d" />

</supply>

Deceased Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01 (open)]

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Table 49: Deceased Observation (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Problem Observation (V3)](#E_Problem_Observation_V3) (optional) |

This template represents the observation that a patient has died. It also represents the cause of death, indicated by an entryRelationship type of ‘CAUS’. This template allows for more specific representation of data than is available with the use of dischargeDispositionCode.

Table 50: Deceased Observation (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-14851](#C_1198-14851) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1198-14852](#C_1198-14852) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-14871](#C_1198-14871) |  |
| @root | 1..1 | SHALL |  | [1198-14872](#C_1198-14872) | 2.16.840.1.113883.10.20.22.4.79 |
| @extension | 1..1 | SHALL |  | [1198-32541](#C_1198-32541) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-14873](#C_1198-14873) |  |
| code | 1..1 | SHALL |  | [1198-14853](#C_1198-14853) |  |
| @code | 1..1 | SHALL |  | [1198-19135](#C_1198-19135) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1198-32158](#C_1198-32158) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1198-14854](#C_1198-14854) |  |
| @code | 1..1 | SHALL |  | [1198-19095](#C_1198-19095) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1198-14855](#C_1198-14855) |  |
| low | 1..1 | SHALL |  | [1198-14874](#C_1198-14874) |  |
| value | 1..1 | SHALL | CD | [1198-14857](#C_1198-14857) |  |
| @code | 1..1 | SHALL |  | [1198-15142](#C_1198-15142) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009 |
| entryRelationship | 0..1 | SHOULD |  | [1198-14868](#C_1198-14868) |  |
| @typeCode | 1..1 | SHALL |  | [1198-14875](#C_1198-14875) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| @inversionInd | 1..1 | SHALL |  | [1198-32900](#C_1198-32900) | true |
| observation | 1..1 | SHALL |  | [1198-14870](#C_1198-14870) | [Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01](#E_Problem_Observation_V3) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-14851).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-14852).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-14871) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.79" (CONF:1198-14872).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32541).
4. SHALL contain at least one [1..\*] id (CONF:1198-14873).
5. SHALL contain exactly one [1..1] code (CONF:1198-14853).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1198-19135).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1198-32158).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-14854).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19095).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-14855).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-14874).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1198-14857).
   1. This value SHALL contain exactly one [1..1] @code="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:1198-15142).
9. SHOULD contain zero or one [0..1] entryRelationship (CONF:1198-14868) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CAUS" Is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-14875).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1198-32900).
   3. SHALL contain exactly one [1..1] [Problem Observation (V3)](#E_Problem_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14870).

Figure 39: Deceased Observation (V3) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.79" extension="2015-08-01" />

<id root="6898fae0-5c8a-11db-b0de-0800200c9a77" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<effectiveTime>

<low value="20100303" />

</effectiveTime>

<value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96" displayName="Dead" />

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

...

</observation>

</entry>

</observation>

Patient Characteristic Expired (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 3.1, US Realm

Table 51: Patient Characteristic Expired (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) |  |

This template represents the QDM datatype: Patient Characteristic, Expired.

This datatype indicates that a patient has expired. A date/time stamp is required.

Table 52: Patient Characteristic Expired (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [2228-28087](#C_2228-28087) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [2228-28088](#C_2228-28088) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [2228-28089](#C_2228-28089) |  |
| templateId | 1..1 | SHALL |  | [2228-12540](#C_2228-12540) |  |
| @root | 1..1 | SHALL |  | [2228-12541](#C_2228-12541) | 2.16.840.1.113883.10.20.24.3.54 |
| @extension | 1..1 | SHALL |  | [2228-27014](#C_2228-27014) | 2016-02-01 |

1. Conforms to [Deceased Observation (V3)](#E_Deceased_Observation_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:2228-28087).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:2228-28088).
4. SHALL NOT contain [0..0] @negationInd (CONF:2228-28089).
5. SHALL contain exactly one [1..1] templateId (CONF:2228-12540) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.54" (CONF:2228-12541).
   2. SHALL contain exactly one [1..1] @extension="2016-02-01" (CONF:2228-27014).

Figure 40: Patient Characteristic Expired (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA R2.1 Deceased Observation (V3) templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79" extension="2015-08-01" />

<!-- Patient Characteristic Expired (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.54" extension="2016-02-01" />

<id root="f3d6fd73-b2c0-4274-bfd2-a485957734db" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="HL7ActCode" />

<statusCode code="completed" />

<!-- QDM Attributes: Date and Time -->

<effectiveTime>

<low value="201501011030" />

</effectiveTime>

<value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Dead" />

<!-- QDM Attribute: Cause -->

<entryRelationship typeCode="CAUS" negationInd="false">

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA R2.1 Problem Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

<id root="d11275e7-67ae-11db-bd13-0800200c9a66" />

<code code="64572001" displayName="Condition" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<translation code="75323-6" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Condition"/>

</code>

<statusCode code="completed" />

<effectiveTime>

<low value="20151215" />

</effectiveTime>

<value xsi:type="CD" code="56717001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Tuberculosis" />

</observation>

</entryRelationship>

</observation>

Device Order Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01 (open)]

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Table 53: Device Order Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Device Order (V4)](#E_Device_Order_V4) (required) |

This template along with the Device Order (V3) template represents the QDM Datatype: Device, Order.  
Adding this act wrapper to the Device Order (V3) template allows device order to be negated.

Table 54: Device Order Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28444](#C_3343-28444) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28445](#C_3343-28445) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28446](#C_3343-28446) |  |
| templateId | 1..1 | SHALL |  | [3343-28441](#C_3343-28441) |  |
| @root | 1..1 | SHALL |  | [3343-28447](#C_3343-28447) | 2.16.840.1.113883.10.20.24.3.130 |
| @extension | 1..1 | SHALL |  | [3343-28918](#C_3343-28918) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28442](#C_3343-28442) |  |
| @code | 1..1 | SHALL |  | [3343-28448](#C_3343-28448) | SPLY |
| @codeSystem | 1..1 | SHALL |  | [3343-28449](#C_3343-28449) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| entryRelationship | 1..1 | SHALL |  | [3343-28443](#C_3343-28443) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28450](#C_3343-28450) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| supply | 1..1 | SHALL |  | [3343-28451](#C_3343-28451) | [Device Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2017-08-01](#E_Device_Order_V4) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28444).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28445).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28446).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28441) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.130" (CONF:3343-28447).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28918).
5. SHALL contain exactly one [1..1] code (CONF:3343-28442).
   1. This code SHALL contain exactly one [1..1] @code="SPLY" Supply (CONF:3343-28448).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28449).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28443) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28450).
   2. SHALL contain exactly one [1..1] [Device Order (V4)](#E_Device_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2017-08-01) (CONF:3343-28451).

Figure 41: Device Order Act (V2) Example

<act classCode="ACT" moodCode="RQO">

<templateId root="2.16.840.1.113883.10.20.24.3.130" extension="2017-08-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="Supply" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<supply classCode="SPLY" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Supply (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>

<!-- Device Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.9" extension="2017-08-01"/>

<id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>

<statusCode code="active"/>

<author>

<time value="201610101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice classCode="DEV">

<!-- Device -->

<code code="401608003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>

</playingDevice>

</participantRole>

</participant>

</supply>

</entryRelationship>

</act>

Device Recommended Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 55: Device Recommended Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Device Recommended (V4)](#E_Device_Recommended_V4) (required) |

This template along with the Device Recommended (V4) template represent the QDM Datatype: Device, Recommended.  
Adding an act wrapper to the Device Recommended (V4) template allows the device recommended to be negated.

Table 56: Device Recommended Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28454](#C_3343-28454) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28455](#C_3343-28455) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28657](#C_3343-28657) |  |
| templateId | 1..1 | SHALL |  | [3343-28452](#C_3343-28452) |  |
| @root | 1..1 | SHALL |  | [3343-28456](#C_3343-28456) | 2.16.840.1.113883.10.20.24.3.131 |
| @extension | 1..1 | SHALL |  | [3343-28922](#C_3343-28922) | 2017-08-01 |
| entryRelationship | 1..1 | SHALL |  | [3343-28453](#C_3343-28453) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28458](#C_3343-28458) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| supply | 1..1 | SHALL |  | [3343-28459](#C_3343-28459) | [Device Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01](#E_Device_Recommended_V4) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28454).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28455).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28657).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28452) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.131" (CONF:3343-28456).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28922).
5. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28453) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28458).
   2. SHALL contain exactly one [1..1] [Device Recommended (V4)](#E_Device_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01) (CONF:3343-28459).

Figure 42: Device Recommended Act (V2) Example

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.24.3.131" extension="2017-08-01"/>

<code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="Supply" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<supply classCode="SPLY" moodCode="INT">

<!-- C-CDA R2.1 : Planned Supply (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>

<!-- Device Recommended (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.10" extension="2017-08-01"/>

<id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>

<statusCode code="active"/>

<author>

<time value="201705101030"/>

<assignedAuthor>

<id nullFlavor=”NA”/>

</assignedAuthor>

</author>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice classCode="DEV">

<!-- Device -->

<code code="401608003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>

</playingDevice>

</participantRole>

</participant>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Injury of colon"/>

</observation>

</entryRelationship>

</supply>

</entryRelationship>

</act>

Discharge Medication (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 57: Discharge Medication (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Medication Activity (V2)](#Medication_Activity_V2) (required)  [Days Supplied](#E_Days_Supplied_) (optional) |

This template represents the QDM datatype: Medication, Discharge.

This template represents medications should be taken by or given to the patient after being discharged from an inpatient encounter.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.To negate “Medication, Discharge” data type, use the act/negationInd in this template.  
QDM attribute: Author dateTime is the time the discharge medication list on the discharge instruction form is authored. This is represented through the Author Participation template contained in the Medication Activity (V2) template.

Table 58: Discharge Medication (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-16550](#C_4388-16550) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4388-16551](#C_4388-16551) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [4388-28065](#C_4388-28065) |  |
| templateId | 1..1 | SHALL |  | [4388-26956](#C_4388-26956) |  |
| @root | 1..1 | SHALL |  | [4388-26957](#C_4388-26957) | 2.16.840.1.113883.10.20.24.3.105 |
| @extension | 1..1 | SHALL |  | [4388-27037](#C_4388-27037) | 2018-10-01 |
| id | 1..\* | SHALL |  | [4388-26955](#C_4388-26955) |  |
| code | 1..1 | SHALL |  | [4388-16552](#C_4388-16552) |  |
| @code | 1..1 | SHALL |  | [4388-28140](#C_4388-28140) | 75311-1 |
| @codeSystem | 1..1 | SHALL |  | [4388-28141](#C_4388-28141) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entryRelationship | 1..1 | SHALL |  | [4388-16553](#C_4388-16553) |  |
| @typeCode | 1..1 | SHALL |  | [4388-16554](#C_4388-16554) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| substanceAdministration | 1..1 | SHALL |  | [4388-16555](#C_4388-16555) | [Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09](#Medication_Activity_V2) |
| entryRelationship | 0..1 | MAY |  | [4388-29212](#C_4388-29212) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29214](#C_4388-29214) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [4388-29213](#C_4388-29213) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01](#E_Days_Supplied_) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-16550).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-16551).
3. MAY contain zero or one [0..1] @negationInd (CONF:4388-28065).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4388-26956) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.105" (CONF:4388-26957).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-27037).
5. SHALL contain at least one [1..\*] id (CONF:4388-26955).
6. SHALL contain exactly one [1..1] code (CONF:4388-16552).
   1. This code SHALL contain exactly one [1..1] @code="75311-1" Discharge medications (CONF:4388-28140).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4388-28141).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:4388-16553) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-16554).
   2. SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:4388-16555).
8. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29212) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29214).
   2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4388-29213).  
      Note: QDM Attribute: Days Supplied

Figure 43: Discharge Medication (V4) Example

<act classCode="ACT" moodCode="RQO">

<!-- Discharge Medication (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.105" extension="2018-10-01" />

<id root="60f33340-591f-4459-9fa2-1c93e014a6e2" />

<code code="75311-1" displayName="Discharge medications"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<entryRelationship typeCode="SUBJ">

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- Medication Activity (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />

<id root="c0ea7bf3-50e7-4e7a-83a3-e5a9ccbb8541" />

<statusCode code="active" />

<effectiveTime xsi:type="IVL\_TS">

<!-- QDM Attribute: Start datetime -->

<low value="20180301" />

<!-- QDM Attribute: Stop datetime -->

<high value="20180901" />

</effectiveTime>

<!-- QDM Attribute: Frequency -->

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="6" unit="h" />

</effectiveTime>

<!-- QDM Attribute: Route -->

<routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1"

codeSystemName="NCI Thesaurus" displayName="ORAL" />

<!-- QDM Attribute: Dose -->

<doseQuantity value="1" />

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23"

extension="2014-06-09" />

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />

<manufacturedMaterial>

<code code="105152" codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"

displayName="Amoxicillin 60 MG/ML Oral Suspension" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

</entryRelationship>

</act>

Drug Monitoring Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.123 (open)]

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Table 59: Drug Monitoring Act Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional) | [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (required) |

This template represents the act of monitoring the patient's medication and includes a participation to record the person responsible for monitoring the medication. The prescriber of the medication is not necessarily the same person or persons monitoring the drug. The effectiveTime indicates the time when the activity is intended to take place.  
For example, a cardiologist may prescribe a patient Warfarin. The patient's primary care provider may monitor the patient's INR and adjust the dosing of the Warfarin based on these laboratory results. Here the person designated to monitor the drug is the primary care provider.

Table 60: Drug Monitoring Act Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-30823](#C_1098-30823) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-28656](#C_1098-28656) | INT |
| templateId | 1..1 | SHALL |  | [1098-28657](#C_1098-28657) |  |
| @root | 1..1 | SHALL |  | [1098-28658](#C_1098-28658) | 2.16.840.1.113883.10.20.22.4.123 |
| id | 1..\* | SHALL |  | [1098-31920](#C_1098-31920) |  |
| code | 1..1 | SHALL |  | [1098-28660](#C_1098-28660) |  |
| @code | 1..1 | SHALL |  | [1098-30818](#C_1098-30818) | 395170001 |
| @codeSystem | 1..1 | SHALL |  | [1098-30819](#C_1098-30819) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [1098-31921](#C_1098-31921) |  |
| @code | 1..1 | SHALL |  | [1098-32358](#C_1098-32358) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 1..1 | SHALL |  | [1098-31922](#C_1098-31922) |  |
| participant | 1..\* | SHALL |  | [1098-28661](#C_1098-28661) |  |
| @typeCode | 1..1 | SHALL |  | [1098-28663](#C_1098-28663) | RESP |
| participantRole | 1..1 | SHALL |  | [1098-28662](#C_1098-28662) |  |
| @classCode | 1..1 | SHALL |  | [1098-28664](#C_1098-28664) | ASSIGNED |
| id | 1..\* | SHALL |  | [1098-28665](#C_1098-28665) |  |
| playingEntity | 1..1 | SHALL |  | [1098-28667](#C_1098-28667) |  |
| @classCode | 1..1 | SHALL |  | [1098-28668](#C_1098-28668) | PSN |
| name | 1..1 | SHALL |  | [1098-28669](#C_1098-28669) | [US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1](#U_US_Realm_Person_Name_PNUSFIELDED) |

1. SHALL contain exactly one [1..1] @classCode="ACT" act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30823).
2. SHALL contain exactly one [1..1] @moodCode="INT" (CONF:1098-28656).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-28657) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.123" (CONF:1098-28658).
4. SHALL contain at least one [1..\*] id (CONF:1098-31920).
5. SHALL contain exactly one [1..1] code (CONF:1098-28660).
   1. This code SHALL contain exactly one [1..1] @code="395170001" medication monitoring (regime/therapy) (CONF:1098-30818).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30819).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-31921).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ActStatus urn:oid:2.16.840.1.113883.1.11.15933 DYNAMIC (CONF:1098-32358).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-31922).
8. SHALL contain at least one [1..\*] participant (CONF:1098-28661) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RESP" (CONF:1098-28663).
   2. SHALL contain exactly one [1..1] participantRole (CONF:1098-28662).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="ASSIGNED" (CONF:1098-28664).
      2. This participantRole SHALL contain at least one [1..\*] id (CONF:1098-28665).
      3. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:1098-28667).
         1. This playingEntity SHALL contain exactly one [1..1] @classCode="PSN" (CONF:1098-28668).
         2. This playingEntity SHALL contain exactly one [1..1] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1098-28669).

Figure 44: Drug Monitoring Act Example

<entryRelationship typeCode="COMP">

<!-- \*\*DRUG MONITORING ACT \*\*-->

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.123" />

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />

<code code="395170001" displayName="medication monitoring(regime/therapy" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />

<statusCode code="completed" />

<effectiveTime xsi:type="IVL\_TS">

<low value="20130615" />

<high value="20130715" />

</effectiveTime>

<participant typeCode="RESP">

<participantRole classCode="ASSIGNED">

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee5" />

<playingEntity classCode="PSN">

<name>

<given>Listener</given>

<family>Larry</family>

<prefix>DR</prefix>

</name>

</playingEntity>

</participantRole>

</participant>

</act>

</entryRelationship>

Drug Vehicle

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.24 (open)]

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Table 61: Drug Vehicle Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional) |  |

This template represents the vehicle (e.g., saline, dextrose) for administering a medication.

Table 62: Drug Vehicle Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7490](#C_81-7490) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [81-7495](#C_81-7495) |  |
| @root | 1..1 | SHALL |  | [81-10493](#C_81-10493) | 2.16.840.1.113883.10.20.22.4.24 |
| code | 1..1 | SHALL |  | [81-19137](#C_81-19137) |  |
| @code | 1..1 | SHALL |  | [81-19138](#C_81-19138) | 412307009 |
| @codeSystem | 1..1 | SHALL |  | [81-26502](#C_81-26502) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| playingEntity | 1..1 | SHALL |  | [81-7492](#C_81-7492) |  |
| code | 1..1 | SHALL |  | [81-7493](#C_81-7493) |  |
| name | 0..1 | MAY |  | [81-7494](#C_81-7494) |  |

1. SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:81-7490).
2. SHALL contain exactly one [1..1] templateId (CONF:81-7495) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.24" (CONF:81-10493).
3. SHALL contain exactly one [1..1] code (CONF:81-19137).
   1. This code SHALL contain exactly one [1..1] @code="412307009" Drug Vehicle (CONF:81-19138).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26502).
4. SHALL contain exactly one [1..1] playingEntity (CONF:81-7492).

This playingEntity/code is used to supply a coded term for the drug vehicle.

* 1. This playingEntity SHALL contain exactly one [1..1] code (CONF:81-7493).
  2. This playingEntity MAY contain zero or one [0..1] name (CONF:81-7494).
     1. This playingEntity/name MAY be used for the vehicle name in text, such as Normal Saline (CONF:81-10087).

Figure 45: Drug Vehicle Example

<participantRole classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.24"/>

<code code="412307009" displayName="drug vehicle"

codeSystem="2.16.840.1.113883.6.96"/>

<playingEntity classCode="MMAT">

<code code="324049" displayName="Aerosol"

codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"/>

<name>Aerosol</name>

</playingEntity>

</participantRole>

Encounter Activity (V3)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01 (open)]

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Table 63: Encounter Activity (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Service Delivery Location](#E_Service_Delivery_Location) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) (optional) |

This clinical statement describes an interaction between a patient and clinician. Interactions may include in-person encounters, telephone conversations, and email exchanges.

Table 64: Encounter Activity (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-8710](#C_1198-8710) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1198-8711](#C_1198-8711) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-8712](#C_1198-8712) |  |
| @root | 1..1 | SHALL |  | [1198-26353](#C_1198-26353) | 2.16.840.1.113883.10.20.22.4.49 |
| @extension | 1..1 | SHALL |  | [1198-32546](#C_1198-32546) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-8713](#C_1198-8713) |  |
| code | 1..1 | SHALL |  | [1198-8714](#C_1198-8714) | urn:oid:2.16.840.1.113883.3.88.12.80.32 (EncounterTypeCode) |
| originalText | 0..1 | SHOULD |  | [1198-8719](#C_1198-8719) |  |
| reference | 0..1 | SHOULD |  | [1198-15970](#C_1198-15970) |  |
| @value | 0..1 | SHOULD |  | [1198-15971](#C_1198-15971) |  |
| translation | 0..1 | MAY |  | [1198-32323](#C_1198-32323) |  |
| effectiveTime | 1..1 | SHALL |  | [1198-8715](#C_1198-8715) |  |
| sdtc:dischargeDispositionCode | 0..1 | MAY |  | [1198-32176](#C_1198-32176) |  |
| performer | 0..\* | MAY |  | [1198-8725](#C_1198-8725) |  |
| assignedEntity | 1..1 | SHALL |  | [1198-8726](#C_1198-8726) |  |
| code | 0..1 | MAY |  | [1198-8727](#C_1198-8727) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| participant | 0..\* | SHOULD |  | [1198-8738](#C_1198-8738) |  |
| @typeCode | 1..1 | SHALL |  | [1198-8740](#C_1198-8740) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1198-14903](#C_1198-14903) | [Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32](#E_Service_Delivery_Location) |
| entryRelationship | 0..\* | MAY |  | [1198-8722](#C_1198-8722) |  |
| @typeCode | 1..1 | SHALL |  | [1198-8723](#C_1198-8723) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1198-14899](#C_1198-14899) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1198-15492](#C_1198-15492) |  |
| act | 1..1 | SHALL |  | [1198-15973](#C_1198-15973) | [Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01](#E_Encounter_Diagnosis_V3) |

1. SHALL contain exactly one [1..1] @classCode="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-8710).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-8711).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-8712) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:1198-26353).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32546).
4. SHALL contain at least one [1..\*] id (CONF:1198-8713).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet EncounterTypeCode urn:oid:2.16.840.1.113883.3.88.12.80.32 DYNAMIC (CONF:1198-8714).
   1. This code SHOULD contain zero or one [0..1] originalText (CONF:1198-8719).
      1. The originalText, if present, SHOULD contain zero or one [0..1] reference (CONF:1198-15970).
         1. The reference, if present, SHOULD contain zero or one [0..1] @value (CONF:1198-15971).
            1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1198-15972).

The translation may exist to map the code of EncounterTypeCode (2.16.840.1.113883.3.88.12.80.32) value set to the code of Encounter Planned (2.16.840.1.113883.11.20.9.52) value set.

* 1. This code MAY contain zero or one [0..1] translation (CONF:1198-32323).

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-8715).
2. MAY contain zero or one [0..1] sdtc:dischargeDispositionCode (CONF:1198-32176).  
   Note: The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the dischargeDispositionCode element
   1. This sdtc:dischargeDispositionCode SHOULD contain exactly [0..1] *code*, which SHOULD be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status (code system 2.16.840.1.113883.6.301.5) *DYNAMIC* or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition (CONF:1198-32177).
   2. This sdtc:dischargeDispositionCode SHOULD contain exactly [0..1] *codeSystem*, which SHOULD be either CodeSystem: NUBC 2.16.840.1.113883.6.301.5 *OR* CodeSystem: HL7 Discharge Disposition 2.16.840.1.113883.12.112 (CONF:1198-32377).
3. MAY contain zero or more [0..\*] performer (CONF:1198-8725).
   1. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1198-8726).
      1. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1198-8727).
4. SHOULD contain zero or more [0..\*] participant (CONF:1198-8738) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1198-8740).
   2. SHALL contain exactly one [1..1] [Service Delivery Location](#E_Service_Delivery_Location) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1198-14903).
5. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-8722) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-8723).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-14899).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-15492) such that it
   1. SHALL contain exactly one [1..1] [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:1198-15973).

Figure 46: Encounter Activity (V3) Example

<encounter classCode="ENC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01" />

<id root="2a620155-9d11-439e-92b3-5d9815ff4de8" />

<code code="99213" displayName="Office outpatient visit 15 minutes" codeSystemName="CPT-4" codeSystem="2.16.840.1.113883.6.12">

<originalText>

<reference value="#Encounter1" />

</originalText>

<translation code="AMB" codeSystem="2.16.840.1.113883.5.4" displayName="Ambulatory" codeSystemName="HL7 ActEncounterCode" />

</code>

<effectiveTime value="201209271300+0500" />

<performer>

<assignedEntity>

. . .

</assignedEntity>

</performer>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<templateId root="2.16.840.1.113883.10.20.22.4.32" />

. . .

</participantRole>

</participant>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

. . .

</observation>

</entryRelationship>

</encounter>

Encounter Performed (V4)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 65: Encounter Performed (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Performed Act (V2)](#E_Encounter_Performed_Act_V2) (required) | [Facility Location (V2)](#SE_Facility_Location_V2) (optional)  [Principal Diagnosis](#E_Principal_Diagnosis_V1) (optional)  [Admission Source](#E_Admission_Source_V1) (optional)  [Author](#U_Author) (optional) |

This template, along with the Encounter Performed Act (V2) template, represents the QDM datatype: Encounter, Performed. This template must be contained in an Encounter Performed Act (V2) template.  
The Encounter, Performed describes the interactions between the patient and clinicians that have been completed. Interactions include in-person encounters, telephone conversations, and email exchanges. The actStatus is constrained to “completed” and both a low and high effectiveTime are required.

Encounter id is represented using the encounter/id element, the encounter/id/@root (or combined with @extension, if @extension is present) uniquely identifies an encounter.  
Each episode of care shall have one unique inpatient encounter id and if there are other types of encounters present (ICU, ED) during the same episode of care, they shall have their own unique encounter ids. If there are data for multiple episode of cares within the same QRDA category I file, then each episode of care shall have their own unique inpatient encounter id. Should there be another reference to the unique encounter id of an encounter instance in a QRDA category I file, then users should reference the previously noted encounter id of that encounter instance.  
QDM Attribute: Diagnosis is a coded diagnosis/problem addressed during the encounter. Diagnosis attribute is intended to capture ALL diagnoses, including principal diagnosis. This is represented through entryRelationship to Encounter Diagnosis template as specified in the Encounter Activity (V3) parent template.  
QDM Attribute: Principal Diagnosis is the coded diagnosis/problem established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

Table 66: Encounter Performed (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27532](#C_3343-27532) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [3343-27533](#C_3343-27533) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-11861](#C_3343-11861) |  |
| @root | 1..1 | SHALL |  | [3343-11862](#C_3343-11862) | 2.16.840.1.113883.10.20.24.3.23 |
| @extension | 1..1 | SHALL |  | [3343-26552](#C_3343-26552) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-28802](#C_3343-28802) |  |
| @root | 1..1 | SHALL |  | [3343-28804](#C_3343-28804) |  |
| @extension | 0..1 | MAY |  | [3343-28805](#C_3343-28805) |  |
| code | 1..1 | SHALL |  | [3343-27624](#C_3343-27624) |  |
| statusCode | 1..1 | SHALL |  | [3343-11874](#C_3343-11874) |  |
| @code | 1..1 | SHALL |  | [3343-11875](#C_3343-11875) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-11876](#C_3343-11876) |  |
| low | 1..1 | SHALL |  | [3343-11877](#C_3343-11877) |  |
| high | 1..1 | SHALL |  | [3343-11878](#C_3343-11878) |  |
| author | 0..1 | MAY |  | [3343-28806](#C_3343-28806) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..\* | MAY |  | [3343-13025](#C_3343-13025) | [Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01](#SE_Facility_Location_V2) |
| participant | 0..1 | MAY |  | [3343-29101](#C_3343-29101) |  |
| @typeCode | 1..1 | SHALL |  | [3343-29102](#C_3343-29102) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = LOC |
| participantRole | 1..1 | SHALL |  | [3343-29103](#C_3343-29103) | [Admission Source (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01](#E_Admission_Source_V1) |
| entryRelationship | 0..1 | MAY |  | [3343-28597](#C_3343-28597) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28600](#C_3343-28600) | REFR |
| observation | 1..1 | SHALL |  | [3343-28598](#C_3343-28598) | [Principal Diagnosis (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01](#E_Principal_Diagnosis_V1) |

1. Conforms to [Encounter Activity (V3)](#E_Encounter_Activity_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27532).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-27533).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11861) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.23" (CONF:3343-11862).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-26552).
5. SHALL contain at least one [1..\*] id (CONF:3343-28802).
   1. Such ids SHALL contain exactly one [1..1] @root (CONF:3343-28804).
   2. Such ids MAY contain zero or one [0..1] @extension (CONF:3343-28805).
6. SHALL contain exactly one [1..1] code (CONF:3343-27624).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-11874).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-11875).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-11876).  
   Note: QDM Attribute: Relevant Period. QDM Attribute: Length of Stay is derived from admission time and discharge time.
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-11877).  
      Note: startTime – The time the encounter began (admission time)
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:3343-11878).  
      Note: stopTime – The time the encounter ended (discharge time)
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28806).  
   Note: QDM Attribute: Author dateTime
10. MAY contain zero or more [0..\*] [Facility Location (V2)](#SE_Facility_Location_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:3343-13025).  
    Note: QDM Attribute: Facility Locations
11. MAY contain zero or one [0..1] participant (CONF:3343-29101) such that it  
    Note: QDM Attribute: Admission Source
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-29102).
    2. SHALL contain exactly one [1..1] [Admission Source](#E_Admission_Source_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01) (CONF:3343-29103).
12. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28597) such that it  
    Note: QDM Attribute: Principal Diagnosis
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CONF:3343-28600).
    2. SHALL contain exactly one [1..1] [Principal Diagnosis](#E_Principal_Diagnosis_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01) (CONF:3343-28598).
13. This template *SHALL* be contained by an Encounter Performed Act (V2) (CONF:3343-28803).

Figure 47: Encounter Performed (V4) Example

<!-- Must be contained in the Encounter Performed Act (V2) template to represent the Encounter, Performed QDM data type -->

<encounter classCode="ENC" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Encounter Activity (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01"/>

<!-- Encounter Performed (V4) templateId-->

<templateId root="2.16.840.1.113883.10.20.24.3.23" extension="2017-08-01"/>

<id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>

<code code="4525004" displayName="Emergency Department visit" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<text>Encounter, Performed: Emergency Department Visit</text>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: admission datetime -->

<low value="20170301090000+0500"/>

<!-- QDM Attribute: discharge datetime -->

<high value="20170301130000+0500"/>

</effectiveTime>

<!-- QDM Attribute: Principal Dianosis -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.152" extension="2017-08-01"/>

<id root="92587992-6147-467e-8ce7-b080ef569df4"/>

<code code="8319008" codeSystem="2.16.840.1.113883.6.96"

displayName="Principal Diagnosis" codeSystemName="SNOMED"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="20170301"/>

</effectiveTime>

<value xsi:type="CD" code="8319008" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Acute atrial infarction (disorder)"/>

</observation>

</entryRelationship>

</encounter>

Encounter Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 (open)]

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Table 67: Encounter Diagnosis (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Activity (V3)](#E_Encounter_Activity_V3) (optional) | [Problem Observation (V3)](#E_Problem_Observation_V3) (required) |

This template wraps relevant problems or diagnoses at the close of a visit or that need to be followed after the visit. If the encounter is associated with a Hospital Discharge, the Hospital Discharge Diagnosis must be used. This entry requires at least one Problem Observation entry.

Table 68: Encounter Diagnosis (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-14889](#C_1198-14889) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1198-14890](#C_1198-14890) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-14895](#C_1198-14895) |  |
| @root | 1..1 | SHALL |  | [1198-14896](#C_1198-14896) | 2.16.840.1.113883.10.20.22.4.80 |
| @extension | 1..1 | SHALL |  | [1198-32542](#C_1198-32542) | 2015-08-01 |
| code | 1..1 | SHALL |  | [1198-19182](#C_1198-19182) |  |
| @code | 1..1 | SHALL |  | [1198-19183](#C_1198-19183) | 29308-4 |
| @codeSystem | 1..1 | SHALL |  | [1198-32160](#C_1198-32160) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entryRelationship | 1..\* | SHALL |  | [1198-14892](#C_1198-14892) |  |
| @typeCode | 1..1 | SHALL |  | [1198-14893](#C_1198-14893) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| observation | 1..1 | SHALL |  | [1198-14898](#C_1198-14898) | [Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01](#E_Problem_Observation_V3) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-14889).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-14890).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-14895) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.80" (CONF:1198-14896).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32542).
4. SHALL contain exactly one [1..1] code (CONF:1198-19182).
   1. This code SHALL contain exactly one [1..1] @code="29308-4" Diagnosis (CONF:1198-19183).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32160).
5. SHALL contain at least one [1..\*] entryRelationship (CONF:1198-14892) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-14893).
   2. SHALL contain exactly one [1..1] [Problem Observation (V3)](#E_Problem_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14898).

Figure 48: Encounter Diagnosis (V3) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.80" extension="2015-08-01" />

<code code="29308-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName=" DIAGNOSIS" />

<statusCode code="active" />

<effectiveTime>

<low value="20903003" />

</effectiveTime>

<entryRelationship typeCode="SUBJ">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

<!-- Problem Observation -->

...

</observation>

</entryRelationship>

</act>

Encounter Order Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01 (open)]

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Table 69: Encounter Order Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Encounter Order (V4)](#E_Encounter_Order_V4) (required) |

Table 70: Encounter Order Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28469](#C_3343-28469) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28470](#C_3343-28470) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28483](#C_3343-28483) |  |
| templateId | 1..1 | SHALL |  | [3343-28467](#C_3343-28467) |  |
| @root | 1..1 | SHALL |  | [3343-28471](#C_3343-28471) | 2.16.840.1.113883.10.20.24.3.132 |
| @extension | 1..1 | SHALL |  | [3343-28812](#C_3343-28812) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28810](#C_3343-28810) |  |
| @code | 1..1 | SHALL |  | [3343-28811](#C_3343-28811) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| entryRelationship | 1..1 | SHALL |  | [3343-28468](#C_3343-28468) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28473](#C_3343-28473) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| encounter | 1..1 | SHALL |  | [3343-28474](#C_3343-28474) | [Encounter Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01](#E_Encounter_Order_V4) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28469).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28470).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28483).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28467) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.132" (CONF:3343-28471).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28812).
5. SHALL contain exactly one [1..1] code (CONF:3343-28810).
   1. This code SHALL contain exactly one [1..1] @code="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28811).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28468) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28473).
   2. SHALL contain exactly one [1..1] [Encounter Order (V4)](#E_Encounter_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01) (CONF:3343-28474).

Figure 49: Encounter Order Act (V2) Example

<act classCode="ACT" moodCode="RQO">

<!-- Encounter Order Act (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.132" extension="2017-08-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<encounter classCode="ENC" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>

<!-- Encounter Order (V4) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.22" extension="2017-08-01"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>

<code code="185349003" displayName="encounter for check-up (procedure)" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

<text>Encounter for check-up (procedure)</text>

<statusCode code="active"/>

<author>

<!-- C-CDA R2 Author Participation -->

<templateId root="2.16.840.1.113883.10.20.22.4.119"/>

<time value="201704081130"/>

<assignedAuthor>

<id root="2.16.840.1.113883.4.6" extension="111111111"/>

</assignedAuthor>

</author>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<code code="31628002" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Hospital-based outpatient family medicine clinic (environment)"/>

<addr>

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:(555)555-1003"/>

<playingEntity classCode="PLC">

<name>Good Health Clinic</name>

</playingEntity>

</participantRole>

</participant>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<id root="aa348c15-ce6b-4988-b33b-7ae730c710e2"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="201704081130"/>

</effectiveTime>

<value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Injury of colon"/>

</observation>

</entryRelationship>

</encounter>

</entryRelationship>

</act>

Encounter Performed Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01 (open)]

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Table 71: Encounter Performed Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Encounter Performed (V4)](#E_Encounter_Performed_V4) (required) |

This template, along with its contained Encounter Performed (V4) template, represents the QDM datatype: Encounter, Performed.

The Encounter Performed (V4) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Performed (V4) template allows Encounter Performed to be negated.

Table 72: Encounter Performed Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28477](#C_3343-28477) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28478](#C_3343-28478) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28484](#C_3343-28484) |  |
| templateId | 1..1 | SHALL |  | [3343-28475](#C_3343-28475) |  |
| @root | 1..1 | SHALL |  | [3343-28479](#C_3343-28479) | 2.16.840.1.113883.10.20.24.3.133 |
| @extension | 1..1 | SHALL |  | [3343-28809](#C_3343-28809) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28807](#C_3343-28807) |  |
| @code | 1..1 | SHALL |  | [3343-28808](#C_3343-28808) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| entryRelationship | 1..1 | SHALL |  | [3343-28476](#C_3343-28476) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28481](#C_3343-28481) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| encounter | 1..1 | SHALL |  | [3343-28482](#C_3343-28482) | [Encounter Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01](#E_Encounter_Performed_V4) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28477).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28478).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28484).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28475) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.133" (CONF:3343-28479).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28809).
5. SHALL contain exactly one [1..1] code (CONF:3343-28807).
   1. This code SHALL contain exactly one [1..1] @code="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28808).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28476) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28481).
   2. SHALL contain exactly one [1..1] [Encounter Performed (V4)](#E_Encounter_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01) (CONF:3343-28482).

Figure 50: Encounter Performed Act (V2) Example

<act classCode="ACT" moodCode="EVN">

<!--Encounter performed Act (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.133" extension="2017-08-01"/>

<code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<encounter classCode="ENC" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Encounter Activity (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01"/>

<!-- Encounter Performed (V4) templateId-->

<templateId root="2.16.840.1.113883.10.20.24.3.23" extension="2017-08-01"/>

<id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>

<code code="4525004" displayName="Emergency Department visit" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<text>Encounter, Performed: Emergency Department Visit</text>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - admission datetime -->

<low value="20170301090000+0500"/>

<!-- QDM Attribute: Relevant Period - discharge datetime -->

<high value="20170301130000+0500"/>

</effectiveTime>

</encounter>

</entryRelationship>

</act>

Encounter Recommended Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01 (open)]

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Table 73: Encounter Recommended Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) (required) |

This template, along with its contained Encounter Recommended (V4) template, represents the QDM datatype: Encounter, Recommended.  
The Encounter Recommended (V4) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended (V4) template allows Encounter Recommended to be negated.

Table 74: Encounter Recommended Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28487](#C_3343-28487) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28488](#C_3343-28488) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28489](#C_3343-28489) |  |
| templateId | 1..1 | SHALL |  | [3343-28485](#C_3343-28485) |  |
| @root | 1..1 | SHALL |  | [3343-28490](#C_3343-28490) | 2.16.840.1.113883.10.20.24.3.134 |
| @extension | 1..1 | SHALL |  | [3343-28815](#C_3343-28815) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28677](#C_3343-28677) |  |
| @code | 1..1 | SHALL |  | [3343-28814](#C_3343-28814) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| entryRelationship | 1..1 | SHALL |  | [3343-28486](#C_3343-28486) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28492](#C_3343-28492) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| encounter | 1..1 | SHALL |  | [3343-28493](#C_3343-28493) | [Encounter Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01](#E_Encounter_Recommended_V4) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28487).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28488).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28489).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28485) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.134" (CONF:3343-28490).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28815).
5. SHALL contain exactly one [1..1] code (CONF:3343-28677).
   1. This code SHALL contain exactly one [1..1] @code="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28814).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28486) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28492).
   2. SHALL contain exactly one [1..1] [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01) (CONF:3343-28493).

Figure 51: Encounter Recommended Act (V2) Example

<act classCode="ACT" moodCode="INT">

<!--Encounter Recommended Act (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.134" extension="2017-08-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<encounter classCode="ENC" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>

<!-- Encounter Recommended (V4) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.24" extension="2017-08-01"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>

<code code="185349003" displayName="encounter for check-up (procedure)" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

<text>Encounter for check-up (procedure)</text>

<statusCode code="active"/>

<author>

<!-- C-CDA R2 Author Participation -->

<templateId root="2.16.840.1.113883.10.20.22.4.119"/>

<time value="201504081130"/>

<assignedAuthor>

<id root="2.16.840.1.113883.4.6" extension="111111111"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<id root="aa348c15-ce6b-4988-b33b-7ae730c710e2"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Injury of colon"/>

</observation>

</entryRelationship>

</encounter>

</entryRelationship>

</act>

Entry Reference

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.122 (open)]

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Table 75: Entry Reference Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Goal Observation](#E_Goal_Observation_U) (optional) |  |

This template represents the act of referencing another entry in the same CDA document instance. Its purpose is to remove the need to repeat the complete XML representation of the referred entry when relating one entry to another. This template can be used to reference many types of Act class derivations, such as encounters, observations, procedures etc., as it is often necessary when authoring CDA documents to repeatedly reference other Acts of these types. For example, in a Care Plan it is necessary to repeatedly relate Health Concerns, Goals, Interventions and Outcomes.

The id is required and must be the same id as the entry/id it is referencing. The id cannot be a null value. Act/Code is set to nullFlavor=“NP” (Not Present). This means the value is not present in the message (in act/Code).

Table 76: Entry Reference Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-31485](#C_1098-31485) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-31486](#C_1098-31486) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-31487](#C_1098-31487) |  |
| @root | 1..1 | SHALL |  | [1098-31488](#C_1098-31488) | 2.16.840.1.113883.10.20.22.4.122 |
| id | 1..\* | SHALL |  | [1098-31489](#C_1098-31489) |  |
| code | 1..1 | SHALL |  | [1098-31490](#C_1098-31490) |  |
| @nullFlavor | 1..1 | SHALL |  | [1098-31491](#C_1098-31491) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NP |
| statusCode | 1..1 | SHALL |  | [1098-31498](#C_1098-31498) |  |
| @code | 0..1 | MAY |  | [1098-31499](#C_1098-31499) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31485).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31486).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-31487) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.122" (CONF:1098-31488).

The ID must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. The ID cannot have Null value (e.g., nullFlavor is not allowed).

1. SHALL contain at least one [1..\*] id (CONF:1098-31489).
2. SHALL contain exactly one [1..1] code (CONF:1098-31490).
   1. This code SHALL contain exactly one [1..1] @nullFlavor="NP" Not Present (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-31491).
3. SHALL contain exactly one [1..1] statusCode (CONF:1098-31498).
   1. This statusCode MAY contain zero or one [0..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31499).

Figure 52: Entry Reference Example

<!--

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Health Concern section

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-->

<act classCode="ACT" moodCode="EVN">

<!-- Health Concern Act of a pneumonia diagnosis -->

<templateId root="2.16.840.1.113883.10.20.22.4.132" />

<id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />

<code code="75310-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Health Concern" />

<statusCode code="active" />

<effectiveTime value="20130616" />

<entryRelationship typeCode="REFR">

<!-- Problem Observation (V2) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2014-06-09" />

<id root="8dfacd73-1682-4cc4-9351-e54ccea83612" />

<code code="29308-4"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Diagnosis"/>

<statusCode code="completed" />

<effectiveTime>

<!-- Date of diagnosis -->

<low value="20130616" />

</effectiveTime>

<value xsi:type="CD" code="233604007"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"

displayName="Pneumonia" />

<!-- This Entry Reference refers to a goal, intervention, actual

outcome, or some other entry present in the Care Plan

that the Health Concern is related to-->

<entryRelationship typeCode="REFR">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.122" />

<!-- This ID equals the ID of the goal of a pulse

ox greater than 92% -->

<id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />

<!-- The code is nulled to "NP" Not Present" -->

<code nullFlavor="NP" />

<statusCode code="completed" />

</act>

</entryRelationship>

</observation>

</entryRelationship>

</act>

...

<!--

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Expected Outcomes/Goals section

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-->

...

<entry>

<!-- This is an observation about the expected outcome of a pulse ox reading

of 92 or greater. The Id is the same as the ID as the ID of the

pneumonia problem above -->

<observation classCode="OBS" moodCode="GOL">

<id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />

<code code="59408-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Oxygen saturation in Arterial blood by Pulse oximetry"/>

<statusCode code="active" />

<value xsi:type="IVL\_PQ">

<low value="92" unit="%" />

</value>

<!-- There could be another Entry Reference here referring to the

related health concern, actual outcome, or intervention -->

...

</observation>

</entry>

...

Figure 53: Diagnosis Reference Example

<!-- Show how an encounter can include a discharge diagnosis which references an

item on the problem list using the Entry Reference template -->

<!-- Problem Section -->

<observation>

<id root="1234567" />

<code code="123" codeSystem="1.2.3" displayName="asthma" />

</observation>

<!-- Encounter Section -->

<encounter>

<entryRelationship typeCode="COMP">

<act>

<code code="145" codeSystem="4.5.6" displayName="discharge diagnosis" />

<templateId root="2.16.840.1.113883.10.20.22.4.33" extension="2014-06-09" />

<!-- this is for illustrative purposes only. In this particular

case, the template requires a nested Problem

Observation (V2). In the Health Concern template,

we'd need a constraint that says it's allowable to

include the Entry Reference template. -->

<entryRelationship typeCode="SUBJ">

<act classCode="ACT" moodCode="XXX">

<templateId root="2.16.840.1.113883.10.20.22.4.122" />

<id root="1234567" />

<code nullFlavor="NP" />

</act>

</entryRelationship>

</act>

</entryRelationship>

</encounter>

External Document Reference

[externalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 (open)]

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Table 77: External Document Reference Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Goal Observation](#E_Goal_Observation_U) (optional) |  |

Where it is necessary to reference an external clinical document, the External Document Reference template can be used to reference this external document. However, if the containing document is replacing or appending to another document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

Table 78: External Document Reference Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| externalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-31931](#C_1098-31931) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOCCLIN |
| @moodCode | 1..1 | SHALL |  | [1098-31932](#C_1098-31932) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-32748](#C_1098-32748) |  |
| @root | 1..1 | SHALL |  | [1098-32750](#C_1098-32750) | 2.16.840.1.113883.10.20.22.4.115 |
| @extension | 1..1 | SHALL |  | [1098-32749](#C_1098-32749) | 2014-06-09 |
| id | 1..1 | SHALL |  | [1098-32751](#C_1098-32751) |  |
| code | 1..1 | SHALL |  | [1098-31933](#C_1098-31933) |  |
| setId | 0..1 | SHOULD |  | [1098-32752](#C_1098-32752) |  |
| versionNumber | 0..1 | SHOULD |  | [1098-32753](#C_1098-32753) |  |

1. SHALL contain exactly one [1..1] @classCode="DOCCLIN" Clinical Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31931).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31932).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-32748) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.115" (CONF:1098-32750).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32749).
4. SHALL contain exactly one [1..1] id (CONF:1098-32751).
5. SHALL contain exactly one [1..1] code (CONF:1098-31933).
6. SHOULD contain zero or one [0..1] setId (CONF:1098-32752).
7. SHOULD contain zero or one [0..1] versionNumber (CONF:1098-32753).

Figure 54: External Document Reference Example

<externalDocument classCode="DOCCLIN" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.115"

extension="2014-06-09" />

<id root="6f1bd58b-c58f-40b7-b314-caf1294ed98b" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="57133-1"

displayName="Referral Note" />

<setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />

<versionNumber value="1" />

</externalDocument>

Family History Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.47 (open)]

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Table 79: Family History Death Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Family History Observation (V3)](#E_Family_History_Observation_V3) (optional) |  |

This clinical statement records whether the family member is deceased.

Table 80: Family History Death Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-8621](#C_81-8621) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-8622](#C_81-8622) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-8623](#C_81-8623) |  |
| @root | 1..1 | SHALL |  | [81-10495](#C_81-10495) | 2.16.840.1.113883.10.20.22.4.47 |
| code | 1..1 | SHALL |  | [81-19141](#C_81-19141) |  |
| @code | 1..1 | SHALL |  | [81-19142](#C_81-19142) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [81-26504](#C_81-26504) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [81-8625](#C_81-8625) |  |
| @code | 1..1 | SHALL |  | [81-19097](#C_81-19097) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [81-8626](#C_81-8626) |  |
| @code | 1..1 | SHALL |  | [81-26470](#C_81-26470) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-8621).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-8622).
3. SHALL contain exactly one [1..1] templateId (CONF:81-8623) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.47" (CONF:81-10495).
4. SHALL contain exactly one [1..1] code (CONF:81-19141).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:81-19142).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:81-26504).
5. SHALL contain exactly one [1..1] statusCode (CONF:81-8625).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-19097).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:81-8626).
   1. This value SHALL contain exactly one [1..1] @code="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:81-26470).

Figure 55: Family History Death Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.47"/>

<id root="6898fae0-5c8a-11db-b0de-0800200c9a66"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="419099009"

codeSystem="2.16.840.1.113883.6.96"

displayName="Dead"/>

</observation>

Family History Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01 (open)]

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Table 81: Family History Observation (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Family History Organizer (V3)](#E_Family_History_Organizer_V3) (required) | [Age Observation](#E_Age_Observation) (optional)  [Family History Death Observation](#E_Family_History_Death_Observation) (optional) |

Family History Observations related to a particular family member are contained within a Family History Organizer. The effectiveTime in the Family History Observation is the biologically or clinically relevant time of the observation. The biologically or clinically relevant time is the time at which the observation holds (is effective) for the family member (the subject of the observation).

Table 82: Family History Observation (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-8586](#C_1198-8586) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1198-8587](#C_1198-8587) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-8599](#C_1198-8599) |  |
| @root | 1..1 | SHALL |  | [1198-10496](#C_1198-10496) | 2.16.840.1.113883.10.20.22.4.46 |
| @extension | 1..1 | SHALL |  | [1198-32605](#C_1198-32605) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-8592](#C_1198-8592) |  |
| code | 1..1 | SHALL |  | [1198-32427](#C_1198-32427) | urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2012-06-01 (Problem Type (SNOMED CT)) |
| translation | 1..\* | SHALL |  | [1198-32847](#C_1198-32847) | urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2014-09-02 (Problem Type (LOINC)) |
| statusCode | 1..1 | SHALL |  | [1198-8590](#C_1198-8590) |  |
| @code | 1..1 | SHALL |  | [1198-19098](#C_1198-19098) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [1198-8593](#C_1198-8593) |  |
| value | 1..1 | SHALL | CD | [1198-8591](#C_1198-8591) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |
| entryRelationship | 0..1 | MAY |  | [1198-8675](#C_1198-8675) |  |
| @typeCode | 1..1 | SHALL |  | [1198-8676](#C_1198-8676) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1198-8677](#C_1198-8677) | true |
| observation | 1..1 | SHALL |  | [1198-15526](#C_1198-15526) | [Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31](#E_Age_Observation) |
| entryRelationship | 0..1 | MAY |  | [1198-8678](#C_1198-8678) |  |
| @typeCode | 1..1 | SHALL |  | [1198-8679](#C_1198-8679) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CAUS |
| observation | 1..1 | SHALL |  | [1198-15527](#C_1198-15527) | [Family History Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47](#E_Family_History_Death_Observation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-8586).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-8587).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-8599) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.46" (CONF:1198-10496).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32605).
4. SHALL contain at least one [1..\*] id (CONF:1198-8592).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet Problem Type (SNOMED CT) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2012-06-01 STATIC 2012-06-01 (CONF:1198-32427).
   1. This code SHALL contain at least one [1..\*] translation, which SHOULD be selected from ValueSet Problem Type (LOINC) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2014-09-02 STATIC 2014-09-02 (CONF:1198-32847).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-8590).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19098).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1198-8593).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1198-8591).
9. MAY contain zero or one [0..1] entryRelationship (CONF:1198-8675) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1198-8676).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1198-8677).
   3. SHALL contain exactly one [1..1] [Age Observation](#E_Age_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15526).
10. MAY contain zero or one [0..1] entryRelationship (CONF:1198-8678) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" Causal or Contributory (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1198-8679).
    2. SHALL contain exactly one [1..1] [Family History Death Observation](#E_Family_History_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47) (CONF:1198-15527).

Figure 56: Family History Observation (V3) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />

<!-- Family History Observation template -->

<id root="d42ebf70-5c89-11db-b0de-0800200c9a66" />

<code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Condition">

<translation code="64572001" displayName="Condition"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"></translation>

</code>

<statusCode code="completed" />

<effectiveTime value="1967" />

<value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96" displayName="Myocardial infarction" />

<entryRelationship typeCode="CAUS">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.47" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.31" />

....

</observation>

</entryRelationship>

</observation>

Family History Observation QDM (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01 (open)]

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Table 83: Family History Observation QDM (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Family History Organizer QDM (V4)](#E_Family_History_Organizer_QDM_V4) (required) | [Author](#U_Author) (optional) |

This template (along with its containing organizer template Family History Organizer QDM (V3) represents the QDM datatype: Family History.  
This datatype represents a problem, condition, or diagnosis experienced by a patient's family member whether existing currently or in the past.

Table 84: Family History Observation QDM (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27685](#C_3343-27685) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-27686](#C_3343-27686) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28057](#C_3343-28057) |  |
| templateId | 1..1 | SHALL |  | [3343-27675](#C_3343-27675) |  |
| @root | 1..1 | SHALL |  | [3343-27681](#C_3343-27681) | 2.16.840.1.113883.10.20.24.3.112 |
| @extension | 1..1 | SHALL |  | [3343-27682](#C_3343-27682) | 2017-08-01 |
| value | 1..1 | SHALL | CD | [3343-27688](#C_3343-27688) |  |
| author | 0..1 | MAY |  | [3343-28571](#C_3343-28571) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |

1. Conforms to [Family History Observation (V3)](#E_Family_History_Observation_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27685).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-27686).
4. SHALL NOT contain [0..0] @negationInd (CONF:3343-28057).
5. SHALL contain exactly one [1..1] templateId (CONF:3343-27675) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.112" (CONF:3343-27681).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27682).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-27688).  
   Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28571).  
   Note: QDM Attribute: Author dateTime - the time the family history item is authored (i.e., entered into the record)
8. This template *SHALL* be contained by a Family History Organizer QDM (V4) (CONF:3343-28661).

Figure 57: Family History Observation QDM (V3) Example

<!-- Must be contained in the Family History Organizer (V4) QDM template to represent the Family History QDM data type -->

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Family History Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01"/>

<!-- Family History QDM (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.112" extension="2017-08-01"/>

<id root="d42ebf70-5c89-11db-b0de-0800200c9a66"/>

<code code="75323-6" displayName="Condition" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1">

<translation code="64572001" displayName="Condition" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

</code>

<statusCode code="completed"/>

<!-- Diagnosis/Condition/Problem -->

<value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96" displayName="Myocardial infarction"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017020101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

Family History Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01 (open)]

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Table 85: Family History Organizer (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Family History Observation (V3)](#E_Family_History_Observation_V3) (required) |

The Family History Organizer associates a set of observations with a family member. For example, the Family History Organizer can group a set of observations about the patient’s father.

Table 86: Family History Organizer (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-8600](#C_1198-8600) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [1198-8601](#C_1198-8601) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-8604](#C_1198-8604) |  |
| @root | 1..1 | SHALL |  | [1198-10497](#C_1198-10497) | 2.16.840.1.113883.10.20.22.4.45 |
| @extension | 1..1 | SHALL |  | [1198-32606](#C_1198-32606) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-32485](#C_1198-32485) |  |
| statusCode | 1..1 | SHALL |  | [1198-8602](#C_1198-8602) |  |
| @code | 1..1 | SHALL |  | [1198-19099](#C_1198-19099) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| subject | 1..1 | SHALL |  | [1198-8609](#C_1198-8609) |  |
| relatedSubject | 1..1 | SHALL |  | [1198-15244](#C_1198-15244) |  |
| @classCode | 1..1 | SHALL |  | [1198-15245](#C_1198-15245) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS |
| code | 1..1 | SHALL |  | [1198-15246](#C_1198-15246) | urn:oid:2.16.840.1.113883.1.11.19579 (Family Member Value Set) |
| subject | 0..1 | SHOULD |  | [1198-15248](#C_1198-15248) |  |
| administrativeGenderCode | 1..1 | SHALL |  | [1198-15974](#C_1198-15974) | urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3)) |
| birthTime | 0..1 | SHOULD |  | [1198-15976](#C_1198-15976) |  |
| component | 1..\* | SHALL |  | [1198-32428](#C_1198-32428) |  |
| observation | 1..1 | SHALL |  | [1198-32429](#C_1198-32429) | [Family History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01](#E_Family_History_Observation_V3) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-8600).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-8601).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-8604) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.45" (CONF:1198-10497).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32606).
4. SHALL contain at least one [1..\*] id (CONF:1198-32485).
5. SHALL contain exactly one [1..1] statusCode (CONF:1198-8602).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19099).
6. SHALL contain exactly one [1..1] subject (CONF:1198-8609).
   1. This subject SHALL contain exactly one [1..1] relatedSubject (CONF:1198-15244).
      1. This relatedSubject SHALL contain exactly one [1..1] @classCode="PRS" Person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:1198-15245).
      2. This relatedSubject SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet Family Member Value Set urn:oid:2.16.840.1.113883.1.11.19579 DYNAMIC (CONF:1198-15246).
      3. This relatedSubject SHOULD contain zero or one [0..1] subject (CONF:1198-15248).
         1. The subject, if present, SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:1198-15974).
         2. The subject, if present, SHOULD contain zero or one [0..1] birthTime (CONF:1198-15976).
         3. The subject SHOULD contain zero or more [0..\*] sdtc:id. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the id element (CONF:1198-15249).
         4. The subject MAY contain zero or one [0..1] *sdtc:deceasedInd*. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the deceasedInd element (CONF:1198-15981).
         5. The subject MAY contain zero or one [0..1] *sdtc:deceasedTime*. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the deceasedTime element (CONF:1198-15982).
         6. The age of a relative at the time of a family history observation SHOULD be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime (CONF:1198-15983).
7. SHALL contain at least one [1..\*] component (CONF:1198-32428).
   1. Such components SHALL contain exactly one [1..1] [Family History Observation (V3)](#E_Family_History_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01) (CONF:1198-32429).

Figure 58: Family History Organizer (V3) Example

<organizer moodCode="EVN" classCode="CLUSTER">

<templateId root="2.16.840.1.113883.10.20.22.4.45" extension="2015-08-01" />

<statusCode code="completed" />

<subject>

<relatedSubject classCode="PRS">

<code code="FTH" displayName="Father" codeSystemName="HL7 FamilyMember" codeSystem="2.16.840.1.113883.5.111">

<translation code="9947008" displayName="Natural father" codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96" />

</code>

<subject>

<sdtc:id root="2.16.840.1.113883.19.5.99999.2" extension="99999999" />

<id root="2.16.840.1.113883.19.5.99999.2" extension="1234" />

<administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" />

<birthTime value="1910" />

<!-- Example use of sdtc extensions :-->

<!-- <sdtc:deceasedInd value="true"/><sdtc:deceasedTime value="1967"/>

-->

</subject>

</relatedSubject>

</subject>

<component>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />

. . .

</observation>

</component>

</organizer>

Family History Organizer QDM (V4)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01 (open)]

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Table 87: Family History Organizer QDM (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Family History Observation QDM (V3)](#E_Family_History_Observation_QDM_V3) (required) |

This template (along with its contained template Family History Observation QDM (V3) represents the QDM datatype: Family History.  
This template is an organizer that contains the Family History Observation (V3) template and represents problems, conditions, and diagnoses experienced by a patient's family members, whether existing currently or in the past. This organizer groups the Family History Observation by family member as expressed in the subject.

Table 88: Family History Organizer QDM (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3343-14175](#C_3343-14175) |  |
| @root | 1..1 | SHALL |  | [3343-14176](#C_3343-14176) | 2.16.840.1.113883.10.20.24.3.12 |
| @extension | 1..1 | SHALL |  | [3343-26553](#C_3343-26553) | 2017-08-01 |
| component | 1..\* | SHALL |  | [3343-27715](#C_3343-27715) |  |
| observation | 1..1 | SHALL |  | [3343-27716](#C_3343-27716) | [Family History Observation QDM (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01](#E_Family_History_Observation_QDM_V3) |

1. Conforms to [Family History Organizer (V3)](#E_Family_History_Organizer_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01).
2. SHALL contain exactly one [1..1] templateId (CONF:3343-14175) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.12" (CONF:3343-14176).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-26553).
3. SHALL contain at least one [1..\*] component (CONF:3343-27715) such that it
   1. SHALL contain exactly one [1..1] [Family History Observation QDM (V3)](#E_Family_History_Observation_QDM_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01) (CONF:3343-27716).

Figure 59: Family History Organizer QDM (V4)

<organizer moodCode="EVN" classCode="CLUSTER">

<!-- C-CDA R2.1 Family History Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.45" extension="2015-08-01"/>

<!-- Family History Organizer QDM (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.12" extension="2017-08-01"/>

<id root="2cc2566e-4e7f-4820-817e-31912a61ea1a"/>

<statusCode code="completed"/>

<!-- Subject of the contained Diagnosis Family History template(s) -->

<subject>

<relatedSubject classCode="PRS">

<code code="FTH" displayName="Father" codeSystemName="HL7RoleCode" codeSystem="2.16.840.1.113883.5.111"/>

</relatedSubject>

</subject>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Family History Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01"/>

<!-- Family History QDM (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.112" extension="2017-08-01"/>

<id root="d42ebf70-5c89-11db-b0de-0800200c9a66"/>

<code code="75323-6" displayName="Condition" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1">

<translation code="64572001" displayName="Condition"

codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

</code>

<statusCode code="completed"/>

<!-- Diagnosis/Condition/Problem -->

<value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96" displayName="Myocardial infarction"/>

<author>

<time value="2017020101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

</component>

</organizer>

Goal Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.121 (open)]

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Table 89: Goal Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Goal Observation](#E_Goal_Observation_U) (optional) | [Goal Observation](#E_Goal_Observation_U) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Entry Reference](#E_Entry_Reference) (optional)  [External Document Reference](#E_External_Document_Reference) (optional) |

This template represents a patient health goal. A Goal Observation template may have related components that are acts, encounters, observations, procedures, substance administrations, or supplies.

A goal may be a patient or provider goal. If the author is set to the recordTarget (patient), this is a patient goal. If the author is set to a provider, this is a provider goal. If both patient and provider are set as authors, this is a negotiated goal.

A goal usually has a related health concern and/or risk.

A goal may have components consisting of other goals (milestones). These milestones are related to the overall goal through entryRelationships.

Table 90: Goal Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-30418](#C_1098-30418) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-30419](#C_1098-30419) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL |
| templateId | 1..1 | SHALL |  | [1098-8583](#C_1098-8583) |  |
| @root | 1..1 | SHALL |  | [1098-10512](#C_1098-10512) | 2.16.840.1.113883.10.20.22.4.121 |
| id | 1..\* | SHALL |  | [1098-32332](#C_1098-32332) |  |
| code | 1..1 | SHALL |  | [1098-30784](#C_1098-30784) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [1098-32333](#C_1098-32333) |  |
| @code | 1..1 | SHALL |  | [1098-32334](#C_1098-32334) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-32335](#C_1098-32335) |  |
| value | 0..1 | MAY |  | [1098-32743](#C_1098-32743) |  |
| author | 0..\* | SHOULD |  | [1098-30995](#C_1098-30995) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-30701](#C_1098-30701) |  |
| @typeCode | 1..1 | SHALL |  | [1098-30702](#C_1098-30702) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [1098-30703](#C_1098-30703) | [Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122](#E_Entry_Reference) |
| entryRelationship | 0..\* | MAY |  | [1098-30704](#C_1098-30704) |  |
| @typeCode | 1..1 | SHALL |  | [1098-30705](#C_1098-30705) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [1098-32879](#C_1098-32879) | [Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122](#E_Entry_Reference) |
| entryRelationship | 0..1 | SHOULD |  | [1098-30785](#C_1098-30785) |  |
| @typeCode | 1..1 | SHALL |  | [1098-30786](#C_1098-30786) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-30787](#C_1098-30787) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-31448](#C_1098-31448) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31449](#C_1098-31449) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1098-32880](#C_1098-32880) | [Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121](#E_Goal_Observation_U) |
| entryRelationship | 0..\* | MAY |  | [1098-31559](#C_1098-31559) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31560](#C_1098-31560) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [1098-31588](#C_1098-31588) | [Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122](#E_Entry_Reference) |
| reference | 0..\* | MAY |  | [1098-32754](#C_1098-32754) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32755](#C_1098-32755) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [1098-32756](#C_1098-32756) | [External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09](#E_External_Document_Reference) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30418).
2. SHALL contain exactly one [1..1] @moodCode="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30419).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-8583) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.121" (CONF:1098-10512).
4. SHALL contain at least one [1..\*] id (CONF:1098-32332).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-32333).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32334).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-32335).
8. MAY contain zero or one [0..1] value (CONF:1098-32743).

If the author is the recordTarget (patient), this is a patient goal. If the author is a provider, this is a provider goal. If both patient and provider are authors, this is a negotiated goal. If no author is present, it is assumed the document or section author(s) is the author of this goal.

1. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30995).

The following entryRelationship represents the relationship between a Goal Observation and a Health Concern Act (Goal Observation REFERS TO Health Concern Act). As Health Concern Act is already defined in Health Concerns Section, rather than clone the whole Health Concern Act template, an Entry Reference may be used in entryRelationship to refer the template.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-30701) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30702).
   2. SHALL contain exactly one [1..1] [Entry Reference](#E_Entry_Reference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-30703).

The following entryRelationship represents a planned component of the goal such as Planned Encounter (V2), Planned Observation (V2), Planned Procedure (V2), Planned Medication Activity (V2), Planned Supply (V2), Planned Act (V2) or Planned Immunization Activity. Because these entries are already described in the Interventions Section of the CDA document instance, rather than repeating the full content of the entries, the Entry Reference template may be used to reference the entries.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-30704) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30705).
   2. SHALL contain exactly one [1..1] [Entry Reference](#E_Entry_Reference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-32879).

The following entryRelationship represents the priority that the patient or a provider puts on the goal.

1. SHOULD contain zero or one [0..1] entryRelationship (CONF:1098-30785) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30786).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-30787).

The following entryRelationship represents the relationship between two Goal Observations where the target is a component of the source (Goal Observation HAS COMPONENT Goal Observation). The component goal (target) is a Milestone.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31448) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31449).
   2. SHALL contain exactly one [1..1] [Goal Observation](#E_Goal_Observation_U) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:1098-32880).

Where a Goal Observation needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31559) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31560).
   2. SHALL contain exactly one [1..1] [Entry Reference](#E_Entry_Reference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-31588).

Where it is necessary to reference an external clinical document such a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

1. MAY contain zero or more [0..\*] reference (CONF:1098-32754).
   1. The reference, if present, SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32755).
   2. The reference, if present, SHALL contain exactly one [1..1] [External Document Reference](#E_External_Document_Reference) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1098-32756).

Figure 60: Goal Observation Example

<observation classCode="OBS" moodCode="GOL">

<templateId root="2.16.840.1.113883.10.20.22.4.121" />

<id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />

<code code="59408-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />

<statusCode code="active" />

<effectiveTime value="20130902" />

<value xsi:type="IVL\_PQ">

<low value="92" unit="%" />

</value>

<!--

If the author is set to the recordTarget (patient), this is a patient goal.

If the author is set to a provider, this is a provider goal.

If both patient and provider are set as authors, this is a negotiated goal.

-->

<!-- Provider Author -->

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

...

</author>

<!-- Patient Author -->

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

...

</author>

<!-- This entryRelationship represents the relationship "Goal REFERS TO Health Concern" -->

<entryRelationship typeCode="REFR">

<!-- Entry Reference Concern Act -->

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.122" />

<!-- This id points to an already defined Health Concern in the Health Concerns Section -->

<id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />

...

</act>

</entryRelationship>

<!-- Priority Preference -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference - this is the preference that the patient

(specified by the Author Participation template)

places on the Goal -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

<!-- Priority Preference - this is the preference that the provider

(specified by the Author Participation template)

places on the Goal -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

</observation>

Care Goal (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 91: Care Goal (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Target Outcome (V2)](#E_Target_Outcome_V2) (optional)  [Related To](#SE_Related_To) (optional) |

This template represents the QDM datatype: Care Goal.  
A goal is a defined target or measure to be achieved in the process of patient care, that is, an expected outcome. A typical goal is expressed as a change in status expected at a defined future time. That change can be an observation represented by other QDM categories (diagnostic tests, laboratory tests, symptoms, etc.) scheduled for some time in the future and with a particular value. A goal can be found in the plan of care (care plan), the structure used by all stakeholders, including the patient, to define the management actions for the various conditions, problems, or issues identified for the target of the plan. This structure, through which the goals and care-planning actions and processes can be organized, planned, communicated, and checked for completion, is represented in the QDM categories as a Record Artifact. A time/date stamp is required. moodCode is constrained to “GOL” and actStatus is constrained to “active”.  
QDM Attribute: Related To. It is the problem, procedure or other class of information to which the Care Goal is related.  
QDM Attribute: Relevant Period addresses the time between the start of an action to the end of an action. Relevant PeriodstartTime is when the goal is recorded, and therefore should be considered effective. Relevant PeriodstopTime is when the target outcome is expected to be met.

Table 92: Care Goal (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11245](#C_3343-11245) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-11246](#C_3343-11246) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28040](#C_3343-28040) |  |
| templateId | 1..1 | SHALL |  | [3343-11247](#C_3343-11247) |  |
| @root | 1..1 | SHALL |  | [3343-11248](#C_3343-11248) | 2.16.840.1.113883.10.20.24.3.1 |
| @extension | 1..1 | SHALL |  | [3343-27067](#C_3343-27067) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27576](#C_3343-27576) |  |
| effectiveTime | 1..1 | SHALL |  | [3343-11255](#C_3343-11255) |  |
| low | 1..1 | SHALL |  | [3343-27557](#C_3343-27557) |  |
| high | 0..1 | MAY |  | [3343-27558](#C_3343-27558) |  |
| entryRelationship | 0..1 | MAY |  | [3343-28036](#C_3343-28036) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28037](#C_3343-28037) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-28038](#C_3343-28038) | [Target Outcome (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01](#E_Target_Outcome_V2) |
| sdtc:inFulfillmentOf1 | 0..\* | MAY |  | [3343-29115](#C_3343-29115) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01](#SE_Related_To) |

1. Conforms to [Goal Observation](#E_Goal_Observation_U) template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11245).
3. SHALL contain exactly one [1..1] @moodCode="GOL" goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11246).
4. SHALL NOT contain [0..0] @negationInd (CONF:3343-28040).
5. SHALL contain exactly one [1..1] templateId (CONF:3343-11247) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.1" (CONF:3343-11248).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27067).
6. SHALL contain exactly one [1..1] code (CONF:3343-27576).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-11255).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-27557).  
      Note: startTime - when the goal is recorded, and therefore should be considered effective
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-27558).  
      Note: Stop dateTime - when the target outcome is expected to be met
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28036) such that it  
   Note: QDM Attribute: Targeted Outcome
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28037).
   2. SHALL contain exactly one [1..1] [Target Outcome (V2)](#E_Target_Outcome_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01) (CONF:3343-28038).
9. MAY contain zero or more [0..\*] [Related To](#SE_Related_To) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:3343-29115).  
   Note: QDM Attribute: Related To

Figure 61: Care Goal (V4) Example

<observation classCode="OBS" moodCode="GOL">

<!-- Conforms to C-CDA R2.1 Goal Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.121"/>

<!-- Care Goal (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.1" extension="2017-08-01"/>

<id root="751aa255-0e10-4364-a56a-a4cf2aed0d01"/>

<code code="44616-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Pulse oximetry panel"/>

<text>Care Goal: Pulse Oximetry greater than 92%</text>

<statusCode code="active"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - Start dateTime -->

<low value="20170101"/>

</effectiveTime>

<value xsi:type="IVL\_PQ">

<low value="92" unit="%"/>

</value>

<!-- QDM Attribute: Target Outcome -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.119" extension="2017-08-01"/>

<id root="3a4aa411-78b9-484b-a0f1-33f1cf49b4ad"/>

<code code="29463-7" displayName="Body weight" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="PQ" unit="kg" value="65"/>

</observation>

</entryRelationship>

<!-- QDM Attribute: Related to -->

<sdtc:inFulfillmentOf1 typeCode="FLFS">

<sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>

<sdtc:actReference classCode="SPLY" moodCode="RQO">

<!-- For example, the id is the same as the id of another QDM element instance contained in the same QRDA I document being referenced -->

<sdtc:id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

</sdtc:actReference>

</sdtc:inFulfillmentOf1>

</observation>

Immunization Activity (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 93: Immunization Activity (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Drug Vehicle](#E_Drug_Vehicle) (optional)  [Immunization Refusal Reason](#E_Immunization_Refusal_Reason) (optional)  [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Substance Administered Act](#E_Substance_Administered_Act) (optional)  [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (required)  [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (optional) |

An Immunization Activity describes immunization substance administrations that have actually occurred or are intended to occur. Immunization Activities in "INT" mood are reflections of immunizations a clinician intends a patient to receive. Immunization Activities in "EVN" mood reflect immunizations actually received.  
An Immunization Activity is very similar to a Medication Activity with some key differentiators. The drug code system is constrained to CVX codes. Administration timing is less complex. Patient refusal reasons should be captured. All vaccines administered should be fully documented in the patient's permanent medical record. Healthcare providers who administer vaccines covered by the National Childhood Vaccine Injury Act are required to ensure that the permanent medical record of the recipient indicates:

1. Date of administration
2. Vaccine manufacturer
3. Vaccine lot number
4. Name and title of the person who administered the vaccine and the address of the clinic or facility where the permanent record will reside
5. Vaccine information statement (VIS)
6. Date printed on the VIS
7. Date VIS given to patient or parent/guardian.

This information should be included in an Immunization Activity when available. (Reference: [URL:http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/D/vacc\_admin.pdf])

Table 94: Immunization Activity (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8826](#C_1098-8826) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [1098-8827](#C_1098-8827) | urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvnInt) |
| @negationInd | 0..1 | MAY |  | [1098-8985](#C_1098-8985) |  |
| templateId | 1..1 | SHALL |  | [1098-8828](#C_1098-8828) |  |
| @root | 1..1 | SHALL |  | [1098-10498](#C_1098-10498) | 2.16.840.1.113883.10.20.22.4.52 |
| @extension | 1..1 | SHALL |  | [1098-32528](#C_1098-32528) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8829](#C_1098-8829) |  |
| code | 0..1 | MAY |  | [1098-8830](#C_1098-8830) |  |
| statusCode | 1..1 | SHALL |  | [1098-8833](#C_1098-8833) |  |
| @code | 1..1 | SHALL |  | [1098-32359](#C_1098-32359) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 1..1 | SHALL |  | [1098-8834](#C_1098-8834) |  |
| repeatNumber | 0..1 | MAY |  | [1098-8838](#C_1098-8838) |  |
| routeCode | 0..1 | MAY |  | [1098-8839](#C_1098-8839) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 (SPL Drug Route of Administration Terminology) |
| approachSiteCode | 0..1 | MAY | SET<CD> | [1098-8840](#C_1098-8840) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| doseQuantity | 0..1 | SHOULD |  | [1098-8841](#C_1098-8841) |  |
| @unit | 0..1 | SHOULD |  | [1098-8842](#C_1098-8842) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| administrationUnitCode | 0..1 | MAY |  | [1098-8846](#C_1098-8846) | urn:oid:2.16.840.1.113762.1.4.1021.30 (AdministrationUnitDoseForm) |
| consumable | 1..1 | SHALL |  | [1098-8847](#C_1098-8847) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-15546](#C_1098-15546) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| performer | 0..1 | SHOULD |  | [1098-8849](#C_1098-8849) |  |
| author | 0..\* | SHOULD |  | [1098-31151](#C_1098-31151) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-8850](#C_1098-8850) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8851](#C_1098-8851) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| participantRole | 1..1 | SHALL |  | [1098-15547](#C_1098-15547) | [Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24](#E_Drug_Vehicle) |
| entryRelationship | 0..\* | MAY |  | [1098-8853](#C_1098-8853) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8854](#C_1098-8854) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-15537](#C_1098-15537) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-8856](#C_1098-8856) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8857](#C_1098-8857) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-8858](#C_1098-8858) | true |
| act | 1..1 | SHALL |  | [1098-31392](#C_1098-31392) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-8860](#C_1098-8860) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8861](#C_1098-8861) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [1098-15539](#C_1098-15539) | [Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09](#E_Medication_Supply_Order_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-8863](#C_1098-8863) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8864](#C_1098-8864) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [1098-15540](#C_1098-15540) | [Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09](#E_Medication_Dispense_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-8866](#C_1098-8866) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8867](#C_1098-8867) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| observation | 1..1 | SHALL |  | [1098-15541](#C_1098-15541) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-8988](#C_1098-8988) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8989](#C_1098-8989) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-15542](#C_1098-15542) | [Immunization Refusal Reason (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53](#E_Immunization_Refusal_Reason) |
| entryRelationship | 0..\* | SHOULD |  | [1098-31510](#C_1098-31510) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31511](#C_1098-31511) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [1098-31512](#C_1098-31512) | true |
| sequenceNumber | 0..1 | MAY |  | [1098-31513](#C_1098-31513) |  |
| act | 1..1 | SHALL |  | [1098-31514](#C_1098-31514) | [Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118](#E_Substance_Administered_Act) |
| precondition | 0..\* | MAY |  | [1098-8869](#C_1098-8869) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8870](#C_1098-8870) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN |
| criterion | 1..1 | SHALL |  | [1098-15548](#C_1098-15548) | [Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09](#Precondition_for_Substance_Administrati) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8826).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 STATIC 2014-09-01 (CONF:1098-8827).
3. MAY contain zero or one [0..1] @negationInd (CONF:1098-8985).  
   Note: Use negationInd="true" to indicate that the immunization was not given.
4. SHALL contain exactly one [1..1] templateId (CONF:1098-8828) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.52" (CONF:1098-10498).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32528).
5. SHALL contain at least one [1..\*] id (CONF:1098-8829).
6. MAY contain zero or one [0..1] code (CONF:1098-8830).  
   Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used and there is no defined value set.
7. SHALL contain exactly one [1..1] statusCode (CONF:1098-8833).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ActStatus urn:oid:2.16.840.1.113883.1.11.15933 DYNAMIC (CONF:1098-32359).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-8834).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-8838).
2. MAY contain zero or one [0..1] routeCode, which SHALL be selected from ValueSet SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:1098-8839).
3. MAY contain zero or one [0..1] approachSiteCode, where the code SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-8840).
4. SHOULD contain zero or one [0..1] doseQuantity (CONF:1098-8841).
   1. The doseQuantity, if present, SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-8842).
5. MAY contain zero or one [0..1] administrationUnitCode, which SHALL be selected from ValueSet AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30 DYNAMIC (CONF:1098-8846).
6. SHALL contain exactly one [1..1] consumable (CONF:1098-8847).
   1. This consumable SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-15546).
7. SHOULD contain zero or one [0..1] performer (CONF:1098-8849).
8. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31151).
9. MAY contain zero or more [0..\*] participant (CONF:1098-8850) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-8851).
   2. SHALL contain exactly one [1..1] [Drug Vehicle](#E_Drug_Vehicle) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1098-15547).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8853) such that it
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8854).
    2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15537).
11. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8856) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8857).
    2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-8858).
    3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31392).
12. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8860) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8861).
    2. SHALL contain exactly one [1..1] [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-15539).
13. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8863) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8864).
    2. SHALL contain exactly one [1..1] [Medication Dispense (V2)](#E_Medication_Dispense_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1098-15540).
14. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8866) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8867).
    2. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-15541).
15. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8988) such that it
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8989).
    2. SHALL contain exactly one [1..1] [Immunization Refusal Reason](#E_Immunization_Refusal_Reason) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53) (CONF:1098-15542).

The following entryRelationship is used to indicate a given immunization's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

1. SHOULD contain zero or more [0..\*] entryRelationship (CONF:1098-31510) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31511).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:1098-31512).
   3. MAY contain zero or one [0..1] sequenceNumber (CONF:1098-31513).
   4. SHALL contain exactly one [1..1] [Substance Administered Act](#E_Substance_Administered_Act) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1098-31514).
2. MAY contain zero or more [0..\*] precondition (CONF:1098-8869) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PRCN" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8870).
   2. SHALL contain exactly one [1..1] [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-15548).

Figure 62: Immunization Activity (V2) Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- \*\* Immunization activity \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2014-06-09" />

<id root="e6f1ba43-c0ed-4b9b-9f12-f435d8ad8f92" />

<statusCode code="completed" />

<effectiveTime value="19981215" />

<routeCode code="C28161" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="National Cancer Institute (NCI) Thesaurus" displayName="Intramuscular injection" />

<doseQuantity value="50" unit="ug" />

<consumable>

<manufacturedProduct classCode="MANU">

<!-- \*\* Immunization medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />

<manufacturedMaterial>

<code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">

<translation code="854981" displayName="Pneumovax 23 (Pneumococcal vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM" codeSystem="2.16.840.1.113883.6.88" />

</code>

<lotNumberText>1</lotNumberText>

</manufacturedMaterial>

<manufacturerOrganization>

<name>Health LS - Immuno Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

</consumable>

<performer>

<assignedEntity>

<id root="2.16.840.1.113883.19.5.9999.456" extension="2981824" />

<addr>

<streetAddressLine>1007 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel: +(555)-555-1030" />

<assignedPerson>

<name>

<given>Harold</given>

<family>Hippocrates</family>

</name>

</assignedPerson>

<representedOrganization>

<id root="2.16.840.1.113883.19.5.9999.1394" />

<name>Good Health Clinic</name>

<telecom use="WP" value="tel: +(555)-555-1030" />

<addr>

<streetAddressLine>1007 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

</substanceAdministration>

Immunization Administered (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 95: Immunization Administered (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (required)  [Reason (V3)](#E_Reason_V3) (optional) |

This template represents the QDM datatypes: Immunization, Administered  
Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 96: Immunization Administered (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28588](#C_3343-28588) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [3343-28589](#C_3343-28589) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-28574](#C_3343-28574) |  |
| @root | 1..1 | SHALL |  | [3343-28581](#C_3343-28581) | 2.16.840.1.113883.10.20.24.3.140 |
| @extension | 1..1 | SHALL |  | [3343-28958](#C_3343-28958) | 2017-08-01 |
| statusCode | 1..1 | SHALL |  | [3343-28576](#C_3343-28576) |  |
| @code | 1..1 | SHALL |  | [3343-28585](#C_3343-28585) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-28578](#C_3343-28578) |  |
| @value | 1..1 | SHALL |  | [3343-28959](#C_3343-28959) |  |
| consumable | 1..1 | SHALL |  | [3343-28957](#C_3343-28957) |  |
| manufacturedProduct | 1..1 | SHALL |  | [3343-28960](#C_3343-28960) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| entryRelationship | 0..1 | MAY |  | [3343-28577](#C_3343-28577) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28586](#C_3343-28586) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-28587](#C_3343-28587) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Immunization Activity (V2)](#E_Immunization_Activity_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28588).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28589).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28574) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.140" (CONF:3343-28581).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28958).
5. SHALL contain exactly one [1..1] statusCode (CONF:3343-28576).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-28585).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28578).  
   Note: QDM Attribute: Author dateTime – the time the immunization is administered, i.e., a single point in time, or the time it is entered into the clinical software
   1. This effectiveTime SHALL contain exactly one [1..1] @value (CONF:3343-28959).
7. SHALL contain exactly one [1..1] consumable (CONF:3343-28957).
   1. This consumable SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:3343-28960).
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28577) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28586).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-28587).

Figure 63: Immunization Administered (V2) Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- C-CDA R2 Immunization Activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2014-06-09"/>

<!-- Immunization Administered -->

<templateId root="2.16.840.1.113883.10.20.24.3.140" extension="2017-08-01"/>

<id root="1ea77951-61f4-425f-bb69-dd396d63c44f"/>

<statusCode code="completed"/>

<effectiveTime value="20041215"/>

<!-- QDM Attribute: Dose -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- C-CDA R2.1 Immunization Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="33" codeSystem="2.16.840.1.113883.6.59"

displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">

</code>

<lotNumberText>1</lotNumberText>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Immunization Medication Information (V2)

[manufacturedProduct: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 97: Immunization Medication Information (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Immunization Activity (V2)](#E_Immunization_Activity_V2) (required)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (required)  [Immunization Administered (V2)](#E_Immunization_Administered_V2) (required) |  |

The Immunization Medication Information represents product information about the immunization substance. The vaccine manufacturer and vaccine lot number are typically recorded in the medical record and should be included if known.

Table 98: Immunization Medication Information (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-9002](#C_1098-9002) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [1098-9004](#C_1098-9004) |  |
| @root | 1..1 | SHALL |  | [1098-10499](#C_1098-10499) | 2.16.840.1.113883.10.20.22.4.54 |
| @extension | 1..1 | SHALL |  | [1098-32602](#C_1098-32602) | 2014-06-09 |
| id | 0..\* | MAY |  | [1098-9005](#C_1098-9005) |  |
| manufacturedMaterial | 1..1 | SHALL |  | [1098-9006](#C_1098-9006) |  |
| code | 1..1 | SHALL |  | [1098-9007](#C_1098-9007) | urn:oid:2.16.840.1.113762.1.4.1010.6 (CVX Vaccines Administered - Vaccine Set ) |
| translation | 0..\* | MAY |  | [1098-31543](#C_1098-31543) | urn:oid:2.16.840.1.113762.1.4.1010.8 (Vaccine Clinical Drug) |
| translation | 0..\* | MAY |  | [1098-31881](#C_1098-31881) |  |
| lotNumberText | 0..1 | SHOULD |  | [1098-9014](#C_1098-9014) |  |
| manufacturerOrganization | 0..1 | SHOULD |  | [1098-9012](#C_1098-9012) |  |

1. SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:1098-9002).
2. SHALL contain exactly one [1..1] templateId (CONF:1098-9004) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.54" (CONF:1098-10499).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32602).
3. MAY contain zero or more [0..\*] id (CONF:1098-9005).
4. SHALL contain exactly one [1..1] manufacturedMaterial (CONF:1098-9006).
   1. This manufacturedMaterial SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet CVX Vaccines Administered - Vaccine Set urn:oid:2.16.840.1.113762.1.4.1010.6 DYNAMIC (CONF:1098-9007).
      1. This code MAY contain zero or more [0..\*] translation, which MAY be selected from ValueSet Vaccine Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.8 DYNAMIC (CONF:1098-31543).
      2. This code MAY contain zero or more [0..\*] translation (CONF:1098-31881).

lotNumberText should be included if known. It may not be known for historical immunizations, planned immunizations, or refused/deferred immunizations.

* 1. This manufacturedMaterial SHOULD contain zero or one [0..1] lotNumberText (CONF:1098-9014).

1. SHOULD contain zero or one [0..1] manufacturerOrganization (CONF:1098-9012).

Figure 64: Immunization Medication Information (V2) Example

<manufacturedProduct classCode="MANU">

<!-- \*\* Immunization medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />

<manufacturedMaterial>

<code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">

<translation code="854981" displayName="Pneumovax 23 (Pneumococcal vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM" codeSystem="2.16.840.1.113883.6.88" />

</code>

<lotNumberText>1</lotNumberText>

</manufacturedMaterial>

<manufacturerOrganization>

<name>Health LS - Immuno Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

Immunization Refusal Reason

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.53 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 99: Immunization Refusal Reason Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional) |  |

The Immunization Refusal Reason documents the rationale for the patient declining an immunization.

Table 100: Immunization Refusal Reason Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-8991](#C_81-8991) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-8992](#C_81-8992) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-8993](#C_81-8993) |  |
| @root | 1..1 | SHALL |  | [81-10500](#C_81-10500) | 2.16.840.1.113883.10.20.22.4.53 |
| id | 1..\* | SHALL |  | [81-8994](#C_81-8994) |  |
| code | 1..1 | SHALL |  | [81-8995](#C_81-8995) | urn:oid:2.16.840.1.113883.1.11.19717 (No Immunization Reason Value Set) |
| statusCode | 1..1 | SHALL |  | [81-8996](#C_81-8996) |  |
| @code | 1..1 | SHALL |  | [81-19104](#C_81-19104) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-8991).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-8992).
3. SHALL contain exactly one [1..1] templateId (CONF:81-8993) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.53" (CONF:81-10500).
4. SHALL contain at least one [1..\*] id (CONF:81-8994).
5. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet No Immunization Reason Value Set urn:oid:2.16.840.1.113883.1.11.19717 DYNAMIC (CONF:81-8995).
6. SHALL contain exactly one [1..1] statusCode (CONF:81-8996).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-19104).

Figure 65: Immunization Refusal Reason Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.53"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4dd8"/>

<code displayName="Patient Objection" code="PATOBJ"

codeSystemName="HL7 ActNoImmunizationReason" codeSystem="2.16.840.1.113883.5.8"/>

<statusCode code="completed"/>

</observation>

Incision Datetime

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.24.3.89 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 101: Incision Datetime Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional) |  |

This template represents the QDM Attribute Incision Datetime, which indicates the time the incision was made.

Table 102: Incision Datetime Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-14559](#C_67-14559) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [67-11401](#C_67-11401) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-11402](#C_67-11402) |  |
| @root | 1..1 | SHALL |  | [67-11403](#C_67-11403) | 2.16.840.1.113883.10.20.24.3.89 |
| code | 1..1 | SHALL |  | [67-14562](#C_67-14562) |  |
| @code | 0..1 | MAY |  | [67-14563](#C_67-14563) | 34896006 |
| @codeSystem | 1..1 | SHALL |  | [67-27014](#C_67-27014) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 1..1 | SHALL |  | [67-14561](#C_67-14561) |  |

1. SHALL contain exactly one [1..1] @classCode="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-14559).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-11401).
3. SHALL contain exactly one [1..1] templateId (CONF:67-11402) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.89" (CONF:67-11403).
4. SHALL contain exactly one [1..1] code (CONF:67-14562).
   1. This code MAY contain zero or one [0..1] @code="34896006" incision (CONF:67-14563).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:67-27014).
5. SHALL contain exactly one [1..1] effectiveTime (CONF:67-14561).

Figure 66: Incision Datetime Example

<procedure classCode="PROC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.89" />

<code code="34896006"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="incision" />

<effectiveTime value="20120329091500+0500" />

</procedure>

Indication (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 (open)]

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Table 103: Indication (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Planned Act (V2)](#E_Planned_Act_V2) (optional)  [Planned Encounter (V2)](#E_Planned_Encounter_V2) (optional)  [Planned Procedure (V2)](#E_Planned_Procedure_V2) (optional)  [Planned Observation (V2)](#E_Planned_Observation_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (optional)  [Encounter Activity (V3)](#E_Encounter_Activity_V3) (optional) |  |

This template represents the rationale for an action such as an encounter, a medication administration, or a procedure. The id element can be used to reference a problem recorded elsewhere in the document, or can be used with a code and value to record the problem. Indications for treatment are not laboratory results; rather the problem associated with the laboratory result should be cited (e.g., hypokalemia instead of a laboratory result of Potassium 2.0 mEq/L). Use the Drug Monitoring Act [templateId 2.16.840.1.113883.10.20.22.4.123] to indicate if a particular drug needs special monitoring (e.g., anticoagulant therapy). Use Precondition for Substance Administration (V2) [templateId 2.16.840.1.113883.10.20.22.4.25.2] to represent that a medication is to be administered only when the associated criteria are met.

Table 104: Indication (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7480](#C_1098-7480) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-7481](#C_1098-7481) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-7482](#C_1098-7482) |  |
| @root | 1..1 | SHALL |  | [1098-10502](#C_1098-10502) | 2.16.840.1.113883.10.20.22.4.19 |
| @extension | 1..1 | SHALL |  | [1098-32570](#C_1098-32570) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7483](#C_1098-7483) |  |
| code | 1..1 | SHALL |  | [1098-31229](#C_1098-31229) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type) |
| statusCode | 1..1 | SHALL |  | [1098-7487](#C_1098-7487) |  |
| @code | 1..1 | SHALL |  | [1098-19105](#C_1098-19105) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [1098-7488](#C_1098-7488) |  |
| value | 0..1 | MAY | CD | [1098-7489](#C_1098-7489) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7480).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7481).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7482) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:1098-10502).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32570).
4. SHALL contain at least one [1..\*] id (CONF:1098-7483).  
   Note: If the id element is used to reference a problem recorded elsewhere in the document then this id must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. Its purpose is to obviate the need to repeat the complete XML representation of the referred to entry when relating one entry to another.
5. SHALL contain exactly one [1..1] code, which MAY be selected from ValueSet Problem Type urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2014-09-02 (CONF:1098-31229).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-7487).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1098-19105).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7488).
8. MAY contain zero or one [0..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1098-7489).

Figure 67: Indication (V2) Example

<entry typeCode="DRIV">

<substanceAdministration classCode="SBADM" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />

<!-- \*\* MEDICATION ACTIVITY -->

<id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />

<text>

<reference value="#Med1" /> 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN wheezing

</text>

...

<!-- Indication snippet inside a Medication Activity -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

<!-- Note that this id equals the problem observation/id -->

<id root="db734647-fc99-424c-a864-7e3cda82e703" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD" code="32398004" displayName="Bronchitis" codeSystem="2.16.840.1.113883.6.96" />

</observation>

</entryRelationship>

...

</substanceAdministration>

</entry>

<!-- Points to a problem on the problem list -->

<!-- Problem observation template

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

Note that this id equals the Indication observation/id

<id root="db734647-fc99-424c-a864-7e3cda82e703"/> -->

Instruction (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 (open)]

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Table 105: Instruction (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Planned Act (V2)](#E_Planned_Act_V2) (optional)  [Planned Procedure (V2)](#E_Planned_Procedure_V2) (optional)  [Planned Observation (V2)](#E_Planned_Observation_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (optional)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (optional) |  |

The Instruction template can be used in several ways, such as to record patient instructions within a Medication Activity or to record fill instructions within a supply order. The template's moodCode can only be INT. If an instruction was already given, the Procedure Activity Act template (instead of this template) should be used to represent the already occurred instruction. The act/code defines the type of instruction. Though not defined in this template, a Vaccine Information Statement (VIS) document could be referenced through act/reference/externalDocument, and patient awareness of the instructions can be represented with the generic participant and the participant/awarenessCode.

Table 106: Instruction (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7391](#C_1098-7391) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-7392](#C_1098-7392) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [1098-7393](#C_1098-7393) |  |
| @root | 1..1 | SHALL |  | [1098-10503](#C_1098-10503) | 2.16.840.1.113883.10.20.22.4.20 |
| @extension | 1..1 | SHALL |  | [1098-32598](#C_1098-32598) | 2014-06-09 |
| code | 1..1 | SHALL |  | [1098-16884](#C_1098-16884) | urn:oid:2.16.840.1.113883.11.20.9.34 (Patient Education) |
| statusCode | 1..1 | SHALL |  | [1098-7396](#C_1098-7396) |  |
| @code | 1..1 | SHALL |  | [1098-19106](#C_1098-19106) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7391).
2. SHALL contain exactly one [1..1] @moodCode="INT" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7392).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7393) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.20" (CONF:1098-10503).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32598).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet Patient Education urn:oid:2.16.840.1.113883.11.20.9.34 DYNAMIC (CONF:1098-16884).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-7396).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1098-19106).

Figure 68: Instruction (V2) Example

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

<code code="171044003" codeSystem="2.16.840.1.113883.6.96" displayName="immunization education" />

<text>

<reference value="#immunSect" />

Possible flu-like symptoms for three days.

</text>

<statusCode code="completed" />

</act>

Laboratory Test Performed (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 107: Laboratory Test Performed (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Status](#E_Status) (optional)  [Result Observation (V3)](#E_Result_Observation_V3) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Component](#E_Component) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Laboratory Test, Performed.

The Laboratory Test Performed template represents the medical procedure of obtaining a sample of blood, urine, or other substance from the body. This template can also describe the result of a study in the clinical laboratory (traditionally chemistry, hematology, microbiology, serology, urinalysis, blood bank). A time/date stamp is required.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V2) template. Although Reason (V2) is not explicitly contained in every template, it is available for use in any template.

Table 108: Laboratory Test Performed (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11705](#C_3343-11705) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-11706](#C_3343-11706) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28077](#C_3343-28077) |  |
| templateId | 1..1 | SHALL |  | [3343-11721](#C_3343-11721) |  |
| @root | 1..1 | SHALL |  | [3343-11722](#C_3343-11722) | 2.16.840.1.113883.10.20.24.3.38 |
| @extension | 1..1 | SHALL |  | [3343-27021](#C_3343-27021) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-11707](#C_3343-11707) |  |
| code | 1..1 | SHALL |  | [3343-27637](#C_3343-27637) |  |
| statusCode | 1..1 | SHALL |  | [3343-11709](#C_3343-11709) |  |
| @code | 1..1 | SHALL |  | [3343-11710](#C_3343-11710) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-11711](#C_3343-11711) |  |
| low | 1..1 | SHALL |  | [3343-11712](#C_3343-11712) |  |
| high | 1..1 | SHALL |  | [3343-11713](#C_3343-11713) |  |
| value | 0..0 | SHALL NOT |  | [3343-29134](#C_3343-29134) |  |
| author | 0..1 | MAY |  | [3343-29120](#C_3343-29120) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-11727](#C_3343-11727) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11728](#C_3343-11728) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27161](#C_3343-27161) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..1 | MAY |  | [3343-29122](#C_3343-29122) |  |
| @typeCode | 1..1 | SHALL |  | [3343-29127](#C_3343-29127) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-29128](#C_3343-29128) | [Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01](#E_Result_Observation_V3) |
| entryRelationship | 0..1 | MAY |  | [3343-27748](#C_3343-27748) |  |
| @typeCode | 1..1 | SHALL |  | [3343-27749](#C_3343-27749) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-27750](#C_3343-27750) | [Status (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93](#E_Status) |
| entryRelationship | 0..\* | MAY |  | [3343-29131](#C_3343-29131) |  |
| @typeCode | 1..1 | SHALL |  | [3343-29132](#C_3343-29132) | REFR |
| observation | 1..1 | SHALL |  | [3343-29133](#C_3343-29133) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01](#E_Component) |
| referenceRange | 0..1 | MAY |  | [3343-29123](#C_3343-29123) |  |
| observationRange | 1..1 | SHALL |  | [3343-29124](#C_3343-29124) |  |
| code | 0..0 | SHALL NOT |  | [3343-29129](#C_3343-29129) |  |
| value | 1..1 | SHALL | IVL\_PQ | [3343-29130](#C_3343-29130) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11705).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11706).
3. MAY contain zero or one [0..1] @negationInd (CONF:3343-28077).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11721) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.38" (CONF:3343-11722).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27021).
5. SHALL contain at least one [1..\*] id (CONF:3343-11707).
6. SHALL contain exactly one [1..1] code (CONF:3343-27637).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-11709).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-11710).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-11711) such that it  
   Note: QDM Attribute: Relevant Period
   1. SHALL contain exactly one [1..1] low (CONF:3343-11712).  
      Note: startTime - the time the laboratory test is initiated (i.e., the time the specimen collection begins)
   2. SHALL contain exactly one [1..1] high (CONF:3343-11713).  
      Note: stopTime - the time the laboratory test is initiated (i.e., the time the specimen collection ends)
9. SHALL NOT contain [0..0] value (CONF:3343-29134).  
   Note: Use Result Observation (V3) to represent Result and/or Result dateTime
10. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-29120).  
    Note: QDM Attribute: Author dateTime
11. MAY contain zero or one [0..1] entryRelationship (CONF:3343-11727) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-11728).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27161).
12. MAY contain zero or one [0..1] entryRelationship (CONF:3343-29122) such that it  
    Note: QDM Attribute: Result, QDM Attribute: Result dateTime
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-29127).
    2. SHALL contain exactly one [1..1] [Result Observation (V3)](#E_Result_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:3343-29128).
13. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27748) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-27749).
    2. SHALL contain exactly one [1..1] [Status](#E_Status) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93) (CONF:3343-27750).
14. MAY contain zero or more [0..\*] entryRelationship (CONF:3343-29131) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CONF:3343-29132).
    2. SHALL contain exactly one [1..1] [Component](#E_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:3343-29133).
15. MAY contain zero or one [0..1] referenceRange (CONF:3343-29123).  
    Note: QDM Attribute: Reference Range Low, QDM Attribute: Reference Range High
    1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:3343-29124).
       1. This observationRange SHALL NOT contain [0..0] code (CONF:3343-29129).
       2. This observationRange SHALL contain exactly one [1..1] value with @xsi:type="IVL\_PQ" (CONF:3343-29130).

Figure 69: Laboratory Test Performed (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Laboratory Test Performed (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.38" extension="2017-08-01" />

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6" />

<!-- Laboratory Test -->

<code code="4544-3" displayName="Hematocrit [Volume Fraction] of Blood by Automated count" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<text>Laboratory Test, Hematocrit</text>

<statusCode code="completed" />

<effectiveTime>

<!-- QDM Attribute: Start Datetime -->

<low value="20150329090000+0500" />

<!-- QDM Attribute: Stop Datetime -->

<high value="20150329103000+0500" />

</effectiveTime>

<!-- QDM Attribute: Status -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Status -->

<templateId root="2.16.840.1.113883.10.20.24.3.93" />

...

</observation>

</entryRelationship>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2014-12-01" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Conforms to C-CDA R2.1 Result Observation (V3) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01"/>

<code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="PQ" value="35.3" unit="%"/>

</observation>

</entryRelationship>

</observation>

Measure Reference

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.24.3.98 (open)]

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Table 109: Measure Reference Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Measure Section](#S_Measure_Section) (required) |  |

This template defines the way that a Measure should be referenced. Measures are referenced through externalAct reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure.

Table 110: Measure Reference Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-12979](#C_67-12979) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [67-12980](#C_67-12980) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-19532](#C_67-19532) |  |
| @root | 1..1 | SHALL |  | [67-19533](#C_67-19533) | 2.16.840.1.113883.10.20.24.3.98 |
| id | 1..\* | SHALL |  | [67-26992](#C_67-26992) |  |
| statusCode | 1..1 | SHALL |  | [67-12981](#C_67-12981) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [67-27020](#C_67-27020) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| reference | 1..1 | SHALL |  | [67-12982](#C_67-12982) |  |
| @typeCode | 1..1 | SHALL |  | [67-12983](#C_67-12983) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [67-12984](#C_67-12984) |  |
| @classCode | 1..1 | SHALL |  | [67-19534](#C_67-19534) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..\* | SHALL |  | [67-12985](#C_67-12985) |  |
| @root | 1..1 | SHALL |  | [67-12986](#C_67-12986) |  |
| @extension | 0..1 | MAY |  | [67-27007](#C_67-27007) |  |
| text | 0..1 | SHOULD |  | [67-12997](#C_67-12997) |  |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-12979).
2. SHALL contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-12980).
3. SHALL contain exactly one [1..1] templateId (CONF:67-19532) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.98" (CONF:67-19533).
4. SHALL contain at least one [1..\*] id (CONF:67-26992).
5. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-12981).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-27020).
6. SHALL contain exactly one [1..1] reference (CONF:67-12982) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:67-12983).
   2. SHALL contain exactly one [1..1] externalDocument (CONF:67-12984).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-19534).
      2. This externalDocument SHALL contain at least one [1..\*] id (CONF:67-12985) such that it
         1. SHALL contain exactly one [1..1] @root (CONF:67-12986).
         2. MAY contain zero or one [0..1] @extension (CONF:67-27007).
         3. This ID references an ID of the Quality Measure (CONF:67-27008).
      3. This externalDocument SHOULD contain zero or one [0..1] text (CONF:67-12997).
         1. This text is the title of the Quality Measure (CONF:67-12998).

Figure 70: Measure Reference Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Measure reference -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<externalDocument classCode="DOC" moodCode="EVN">

<!-- This is the eCQM version specific id for an eCQM -->

<id root="40280382-6240-b6b9-0162-4e22168a0727"/>

<!-- SHOULD This is the title of the eCQM-->

<text>Median Time from ED Arrival to ED Departure for Discharged ED Patients </text>

</externalDocument>

</reference>

</organizer>

eMeasure Reference QDM

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.24.3.97 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 111: eMeasure Reference QDM Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Measure Section QDM](#S_Measure_Section_QDM) (required) |  |

This template defines the way that a QDM eMeasure should be referenced in a QDM-Based QRDA. An eMeasure is referenced through externalAct reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure. The eMeasure Reference QDM template must contain a reference to the version specific identifier for each eMeasure: the QualityMeasureDocument/id.  
In addition to referencing an eMeasure, this template allows one to assert whether or not the included patient data is believed by the sender to satisfy the various population criteria of the referenced eMeasure. For each population defined in a referenced eMeasure, the sender can assert “true” (set negationInd="false") or “false” (set negationInd="true"), that the criteria are met by the included data. For outcome measures, the sender can also assert the predicted probability that the patient would meet particular population criteria. For instance, based on an outcome measure’s risk model, one might calculate that the patient has a 27% probability of meeting the numerator criteria.

Table 112: eMeasure Reference QDM Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-12805](#C_67-12805) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [67-12806](#C_67-12806) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-27018](#C_67-27018) |  |
| @root | 1..1 | SHALL |  | [67-27019](#C_67-27019) | 2.16.840.1.113883.10.20.24.3.97 |
| statusCode | 1..1 | SHALL |  | [67-12807](#C_67-12807) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| reference | 1..1 | SHALL |  | [67-12808](#C_67-12808) |  |
| @typeCode | 1..1 | SHALL |  | [67-12809](#C_67-12809) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [67-12810](#C_67-12810) |  |
| @classCode | 1..1 | SHALL |  | [67-27017](#C_67-27017) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC |
| id | 1..1 | SHALL |  | [67-12811](#C_67-12811) |  |
| @root | 1..1 | SHALL |  | [67-12812](#C_67-12812) | 2.16.840.1.113883.4.738 |
| @extension | 1..1 | SHALL |  | [67-12813](#C_67-12813) |  |
| code | 0..1 | SHOULD |  | [67-12864](#C_67-12864) |  |
| @code | 0..1 | SHOULD |  | [67-27015](#C_67-27015) | 57024-2 |
| @codeSystem | 0..1 | SHOULD |  | [67-27016](#C_67-27016) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| text | 0..1 | SHOULD |  | [67-12865](#C_67-12865) |  |
| setId | 0..1 | SHOULD |  | [67-12867](#C_67-12867) |  |
| versionNumber | 0..1 | SHOULD |  | [67-12869](#C_67-12869) |  |
| component | 0..\* | MAY |  | [67-16678](#C_67-16678) |  |
| observation | 1..1 | SHALL |  | [67-16679](#C_67-16679) |  |
| @negationInd | 1..1 | SHALL |  | [67-16680](#C_67-16680) |  |
| code | 1..1 | SHALL |  | [67-16681](#C_67-16681) |  |
| @code | 1..1 | SHALL |  | [67-16682](#C_67-16682) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [67-27010](#C_67-27010) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [67-16683](#C_67-16683) |  |
| reference | 1..1 | SHALL |  | [67-16684](#C_67-16684) |  |
| @typeCode | 1..1 | SHALL |  | [67-16685](#C_67-16685) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalObservation | 1..1 | SHALL |  | [67-16686](#C_67-16686) |  |
| @classCode | 1..1 | SHALL |  | [67-16693](#C_67-16693) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [67-16694](#C_67-16694) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [67-16687](#C_67-16687) |  |
| referenceRange | 0..1 | MAY |  | [67-16689](#C_67-16689) |  |
| observationRange | 1..1 | SHALL |  | [67-16690](#C_67-16690) |  |
| value | 1..1 | SHALL | REAL | [67-16691](#C_67-16691) |  |

1. Conforms to [Measure Reference](#E_Measure_Reference) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-12805).
3. SHALL contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-12806).
4. SHALL contain exactly one [1..1] templateId (CONF:67-27018) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.97" (CONF:67-27019).
5. SHALL contain exactly one [1..1] statusCode="completed" completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:67-12807).
6. SHALL contain exactly one [1..1] reference (CONF:67-12808) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:67-12809).
   2. SHALL contain exactly one [1..1] externalDocument (CONF:67-12810).
      1. This externalDocument SHALL contain exactly one [1..1] @classCode="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-27017).
      2. This externalDocument SHALL contain exactly one [1..1] id (CONF:67-12811) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.738" (CONF:67-12812).  
            Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure.
         2. SHALL contain exactly one [1..1] @extension (CONF:67-12813).  
            Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e., QualityMeasureDocument/id)
      3. This externalDocument SHOULD contain zero or one [0..1] code (CONF:67-12864).
         1. The code, if present, SHOULD contain zero or one [0..1] @code="57024-2" Health Quality Measure Document (CONF:67-27015).
         2. The code, if present, SHOULD contain zero or one [0..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27016).
      4. This externalDocument SHOULD contain zero or one [0..1] text (CONF:67-12865).
         1. This text SHALL equal the title of the eMeasure (CONF:67-12866).
      5. This externalDocument SHOULD contain zero or one [0..1] setId (CONF:67-12867).
         1. This setId SHALL equal the QualityMeasureDocument/setId which is the eMeasure version neutral id (CONF:67-12868).
      6. This externalDocument SHOULD contain zero or one [0..1] versionNumber (CONF:67-12869).

There is a known data type mismatch issue between the CDA R2 and HQMF for the versionNumber attribute. This guide is based on CDA R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the versionNumber attribute is specified as INT data type. HQMF, however, is derived from HL7 RIM, Version 2.44, where versionNumber is specified as ST data type. Since 2015, the MAT tool assigns a string value such as 4.0.000 as the version number for eMeasures that are authored by the MAT. If versionNumber=”4.0.000” were sent in a QRDA Category I file, it will fail the CDA\_SDTC.xsd schema validation.  
To avoid this problem, since versionNumber is an optional data element (CONF:67-12869), this guide recommends eMeasure version number not be submitted in a QRDA Category I report. Version specific identifier for an eMeasure can be used to uniquely identify an eMeasure and it is a required data element for QRDA I.

* + - 1. The version number SHALL equal the sequential eMeasure Version number (CONF:67-12870).

1. MAY contain zero or more [0..\*] component (CONF:67-16678).
   1. The component, if present, SHALL contain exactly one [1..1] observation (CONF:67-16679).

Set negationInd="false" to assert true (that the criteria are met by the included data). Set negationInd="true" to assert false (that the criteria are not met by the included data).

* + 1. This observation SHALL contain exactly one [1..1] @negationInd (CONF:67-16680).
    2. This observation SHALL contain exactly one [1..1] code (CONF:67-16681).
       1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:67-16682).
       2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:67-27010).
    3. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:67-16683).
    4. This observation SHALL contain exactly one [1..1] reference (CONF:67-16684).
       1. This reference SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:67-16685).
       2. This reference SHALL contain exactly one [1..1] externalObservation (CONF:67-16686).
          1. This externalObservation SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-16693).
          2. This externalObservation SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-16694).
          3. This externalObservation SHALL contain exactly one [1..1] id (CONF:67-16687).

This identifier SHALL be equal to a population criterion identifier in the referenced eMeasure. (This is necessary because a referenced eMeasure can have multiple numerator populations) (CONF:67-16688).

* + 1. This observation MAY contain zero or one [0..1] referenceRange (CONF:67-16689).
       1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:67-16690).
          1. This observationRange SHALL contain exactly one [1..1] value with @xsi:type="REAL" (CONF:67-16691).
       2. The referenceRange is used to indicate the probability that the patient would meet the corresponding population criteria. It is relevant for outcome measures, where predictive models allow for calculating the probability that a patient would meet the criteria of a given population (CONF:67-16692).

Figure 71: eMeasure Reference QDM Example

<!-- 1..\* Organizers, each containing a reference to an eMeasure -->

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- This is the templateId for Measure Reference -->

<templateId root="2.16.840.1.113883.10.20.24.3.98"/>

<!-- This is the templateId for eMeasure Reference QDM -->

<templateId root="2.16.840.1.113883.10.20.24.3.97"/>

<id root="77acf01e-c554-4b23-9224-b9a47442ad88"/>

<statusCode code="completed"/>

<reference typeCode="REFR">

<externalDocument classCode="DOC" moodCode="EVN">

<!-- SHALL: This is the version specific identifier for eMeasure:

QualityMeasureDocument/id - the OID in the @root indicates that

the @extension (which is a GUID) contains the version specific identifier for eMeasure -->

<id root="2.16.840.1.113883.4.738" extension="8a4d92b2-373f-82e2-0137-7b9e21cc5c8f"/>

<!-- SHOULD: This is the NQF Number, root is an NQF OID and for

eMeasure Number and extension is the eMeasure's NQF number -->

<id root="2.16.840.1.113883.3.560.1" extension="0143"/>

<!-- SHOULD: eMeasure Measure Authoring Tool Identifier (not the real

root yet-->

<id root="2.16.840.1.113883.3.560.101.2" extension="93"/>

<!-- SHOULD This is the title of the eMeasure -->

<text>Children's Asthma Care (CAC-1) Relievers for Inpatient

Asthma</text>

<!-- SHOULD: setId is the eMeasure version neutral id -->

<setId root="dc78ee5d-1487-4d79-84c3-1dfdaff0781c"/>

</externalDocument>

</reference>

<component>

<!-- assert whether the patient did/didn't meet the criteria -->

<!-- Set negationInd="false" to assert true (that the criteria are

met by the included data).

Set negationInd="true" to assert false (that the criteria are not

met by the included data). -->

<observation classCode="OBS" moodCode="EVN" negationInd="true|false">

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<value xsi:type="CD"

code="DENEXCEP"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"

displayName="Denominator Exception"/>

<!-- Explicit reference to the eMeasure population (because some

eMeasures have multiple Numerators, etc. -->

<reference typeCode="REFR">

<externalObservation classCode="OBS" moodCode="EVN">

<id root="0C13A447-B884-4C09-8374-09D2E4264034"/>

</externalObservation>

</reference>

<!-- predicted probability that patient would meet the criteria -->

<referenceRange>

<observationRange>

<value xsi:type="REAL" value="0.27"/>

</observationRange>

</referenceRange>

</observation>

</component>

</organizer>

</entry>

Medication Activity (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 113: Medication Activity (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Discharge Medication (V4)](#E_Discharge_Medication_V4) (required) | [Drug Vehicle](#E_Drug_Vehicle) (optional)  [Drug Monitoring Act](#E_Drug_Monitoring_Act) (optional)  [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Medication Information (V2)](#E_Medication_Information_V2) (required)  [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Substance Administered Act](#E_Substance_Administered_Act) (optional)  [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (optional)  [Medication Free Text Sig](#E_Medication_Free_Text_Sig) (optional) |

A Medication Activity describes substance administrations that have actually occurred (e.g., pills ingested or injections given) or are intended to occur (e.g., "take 2 tablets twice a day for the next 10 days"). Medication activities in "INT" mood are reflections of what a clinician intends a patient to be taking. For example, a clinician may intend that a patient be administered Lisinopril 20 mg PO for blood pressure control. If what was actually administered was Lisinopril 10 mg., then the Medication activities in the "EVN" mood would reflect actual use.

A moodCode of INT is allowed, but it is recommended that the Planned Medication Activity (V2) template be used for moodCodes other than EVN if the document type contains a section that includes Planned Medication Activity (V2) (for example a Care Plan document with Plan of Treatment, Intervention, or Goal sections).  
At a minimum, a Medication Activity shall include an effectiveTime indicating the duration of the administration (or single-administration timestamp). Ambulatory medication lists generally provide a summary of use for a given medication over time - a medication activity in event mood with the duration reflecting when the medication started and stopped. Ongoing medications will not have a stop date (or will have a stop date with a suitable NULL value). Ambulatory medication lists will generally also have a frequency (e.g., a medication is being taken twice a day). Inpatient medications generally record each administration as a separate act.

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable and the interval of administration. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

Table 114: Medication Activity (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7496](#C_1098-7496) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [1098-7497](#C_1098-7497) | urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvnInt) |
| templateId | 1..1 | SHALL |  | [1098-7499](#C_1098-7499) |  |
| @root | 1..1 | SHALL |  | [1098-10504](#C_1098-10504) | 2.16.840.1.113883.10.20.22.4.16 |
| @extension | 1..1 | SHALL |  | [1098-32498](#C_1098-32498) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7500](#C_1098-7500) |  |
| code | 0..1 | MAY |  | [1098-7506](#C_1098-7506) |  |
| statusCode | 1..1 | SHALL |  | [1098-7507](#C_1098-7507) |  |
| @code | 1..1 | SHALL |  | [1098-32360](#C_1098-32360) | urn:oid:2.16.840.1.113762.1.4.1099.11 (Medication Status) |
| effectiveTime | 1..1 | SHALL |  | [1098-7508](#C_1098-7508) |  |
| @value | 0..1 | SHOULD |  | [1098-32775](#C_1098-32775) |  |
| low | 0..1 | SHOULD |  | [1098-32776](#C_1098-32776) |  |
| high | 0..1 | MAY |  | [1098-32777](#C_1098-32777) |  |
| effectiveTime | 0..1 | SHOULD |  | [1098-7513](#C_1098-7513) |  |
| @operator | 1..1 | SHALL |  | [1098-9106](#C_1098-9106) | A |
| repeatNumber | 0..1 | MAY |  | [1098-7555](#C_1098-7555) |  |
| routeCode | 0..1 | SHOULD |  | [1098-7514](#C_1098-7514) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 (SPL Drug Route of Administration Terminology) |
| translation | 0..\* | SHOULD |  | [1098-32950](#C_1098-32950) | urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route) |
| approachSiteCode | 0..1 | MAY | SET<CD> | [1098-7515](#C_1098-7515) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| doseQuantity | 1..1 | SHALL |  | [1098-7516](#C_1098-7516) |  |
| @unit | 0..1 | SHOULD |  | [1098-7526](#C_1098-7526) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| rateQuantity | 0..1 | MAY |  | [1098-7517](#C_1098-7517) |  |
| @unit | 1..1 | SHALL |  | [1098-7525](#C_1098-7525) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| maxDoseQuantity | 0..1 | MAY | RTO<PQ, PQ> | [1098-7518](#C_1098-7518) |  |
| administrationUnitCode | 0..1 | MAY |  | [1098-7519](#C_1098-7519) | urn:oid:2.16.840.1.113762.1.4.1021.30 (AdministrationUnitDoseForm) |
| consumable | 1..1 | SHALL |  | [1098-7520](#C_1098-7520) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-16085](#C_1098-16085) | [Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09](#E_Medication_Information_V2) |
| performer | 0..1 | MAY |  | [1098-7522](#C_1098-7522) |  |
| author | 0..\* | SHOULD |  | [1098-31150](#C_1098-31150) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-7523](#C_1098-7523) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7524](#C_1098-7524) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| participantRole | 1..1 | SHALL |  | [1098-16086](#C_1098-16086) | [Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24](#E_Drug_Vehicle) |
| entryRelationship | 0..\* | MAY |  | [1098-7536](#C_1098-7536) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7537](#C_1098-7537) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-16087](#C_1098-16087) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-7539](#C_1098-7539) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7540](#C_1098-7540) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-7542](#C_1098-7542) | true |
| act | 1..1 | SHALL |  | [1098-31387](#C_1098-31387) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-7543](#C_1098-7543) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7547](#C_1098-7547) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [1098-16089](#C_1098-16089) | [Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09](#E_Medication_Supply_Order_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-7549](#C_1098-7549) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7553](#C_1098-7553) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [1098-16090](#C_1098-16090) | [Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09](#E_Medication_Dispense_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-7552](#C_1098-7552) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7544](#C_1098-7544) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| observation | 1..1 | SHALL |  | [1098-16091](#C_1098-16091) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-30820](#C_1098-30820) |  |
| @typeCode | 1..1 | SHALL |  | [1098-30821](#C_1098-30821) | COMP |
| act | 1..1 | SHALL |  | [1098-30822](#C_1098-30822) | [Drug Monitoring Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123](#E_Drug_Monitoring_Act) |
| entryRelationship | 0..\* | MAY |  | [1098-31515](#C_1098-31515) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31516](#C_1098-31516) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [1098-31517](#C_1098-31517) | true |
| sequenceNumber | 0..1 | MAY |  | [1098-31518](#C_1098-31518) |  |
| act | 1..1 | SHALL |  | [1098-31519](#C_1098-31519) | [Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118](#E_Substance_Administered_Act) |
| entryRelationship | 0..\* | MAY |  | [1098-32907](#C_1098-32907) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32908](#C_1098-32908) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [1098-32909](#C_1098-32909) | [Medication Free Text Sig (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147](#E_Medication_Free_Text_Sig) |
| precondition | 0..\* | MAY |  | [1098-31520](#C_1098-31520) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31882](#C_1098-31882) | PRCN |
| criterion | 1..1 | SHALL |  | [1098-31883](#C_1098-31883) | [Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09](#Precondition_for_Substance_Administrati) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7496).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 STATIC 2011-04-03 (CONF:1098-7497).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7499) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1098-10504).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32498).
4. SHALL contain at least one [1..\*] id (CONF:1098-7500).
5. MAY contain zero or one [0..1] code (CONF:1098-7506).  
   Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used, and there is no defined value set.
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-7507).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Medication Status urn:oid:2.16.840.1.113762.1.4.1099.11 DYNAMIC (CONF:1098-32360).

The substance administration effectiveTime field can repeat, in order to represent varying levels of complex dosing. effectiveTime can be used to represent the duration of administration (e.g., "10 days"), the frequency of administration (e.g., "every 8 hours"), and more. Here, we require that there SHALL be an effectiveTime documentation of the duration (or single-administration timestamp), and that there SHOULD be an effectiveTime documentation of the frequency. Other timing nuances, supported by the base CDA R2 standard, may also be included.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-7508) such that it  
   Note: This effectiveTime represents either the medication duration (i.e., the time the medication was started and stopped) or the single-administration timestamp.
   1. SHOULD contain zero or one [0..1] @value (CONF:1098-32775).  
      Note: indicates a single-administration timestamp
   2. SHOULD contain zero or one [0..1] low (CONF:1098-32776).  
      Note: indicates when medication started
   3. MAY contain zero or one [0..1] high (CONF:1098-32777).  
      Note: indicates when medication stopped
   4. This effectiveTime SHALL contain either a low or a @value but not both (CONF:1098-32890).
2. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7513) such that it  
   Note: This effectiveTime represents the medication frequency (e.g., administration times per day).
   1. SHALL contain exactly one [1..1] @operator="A" (CONF:1098-9106).
   2. SHALL contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:1098-28499).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-7555).
2. SHOULD contain zero or one [0..1] routeCode, which SHALL be selected from ValueSet SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:1098-7514).
   1. The routeCode, if present, SHOULD contain zero or more [0..\*] translation, which SHALL be selected from ValueSet Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12 DYNAMIC (CONF:1098-32950).
3. MAY contain zero or one [0..1] approachSiteCode, where the code SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-7515).
4. SHALL contain exactly one [1..1] doseQuantity (CONF:1098-7516).
   1. This doseQuantity SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-7526).
   2. Pre-coordinated consumable: If the consumable code is a pre-coordinated unit dose (e.g., "metoprolol 25mg tablet") then doseQuantity is a unitless number that indicates the number of products given per administration (e.g., "2", meaning 2 x "metoprolol 25mg tablet" per administration) (CONF:1098-16878).
   3. Not pre-coordinated consumable: If the consumable code is not pre-coordinated (e.g., is simply "metoprolol"), then doseQuantity must represent a physical quantity with @unit, e.g., "25" and "mg", specifying the amount of product given per administration (CONF:1098-16879).
5. MAY contain zero or one [0..1] rateQuantity (CONF:1098-7517).
   1. The rateQuantity, if present, SHALL contain exactly one [1..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-7525).
6. MAY contain zero or one [0..1] maxDoseQuantity (CONF:1098-7518).

administrationUnitCode@code describes the units of medication administration for an item using a code that is pre-coordinated to include a physical unit form (ointment, powder, solution, etc.) which differs from the units used in administering the consumable (capful, spray, drop, etc.). For example when recording medication administrations, “metric drop (C48491)” would be appropriate to accompany the RxNorm code of 198283 (Timolol 0.25% Ophthalmic Solution) where the number of drops would be specified in doseQuantity@value.

1. MAY contain zero or one [0..1] administrationUnitCode, which SHALL be selected from ValueSet AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30 DYNAMIC (CONF:1098-7519).
2. SHALL contain exactly one [1..1] consumable (CONF:1098-7520).
   1. This consumable SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16085).
3. MAY contain zero or one [0..1] performer (CONF:1098-7522).
4. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31150).
5. MAY contain zero or more [0..\*] participant (CONF:1098-7523) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-7524).
   2. SHALL contain exactly one [1..1] [Drug Vehicle](#E_Drug_Vehicle) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1098-16086).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7536) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7537).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-16087).
7. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7539) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7540).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7542).
   3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31387).
8. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7543) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7547).
   2. SHALL contain exactly one [1..1] [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-16089).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7549) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7553).
   2. SHALL contain exactly one [1..1] [Medication Dispense (V2)](#E_Medication_Dispense_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1098-16090).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7552) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7544).
    2. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16091).
11. MAY contain zero or one [0..1] entryRelationship (CONF:1098-30820) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-30821).
    2. SHALL contain exactly one [1..1] [Drug Monitoring Act](#E_Drug_Monitoring_Act) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123) (CONF:1098-30822).

The following entryRelationship is used to indicate a given medication's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31515) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31516).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:1098-31517).
   3. MAY contain zero or one [0..1] sequenceNumber (CONF:1098-31518).
   4. SHALL contain exactly one [1..1] [Substance Administered Act](#E_Substance_Administered_Act) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1098-31519).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32907) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32908).
   2. SHALL contain exactly one [1..1] [Medication Free Text Sig](#E_Medication_Free_Text_Sig) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147) (CONF:1098-32909).
3. MAY contain zero or more [0..\*] precondition (CONF:1098-31520).
   1. The precondition, if present, SHALL contain exactly one [1..1] @typeCode="PRCN" (CONF:1098-31882).
   2. The precondition, if present, SHALL contain exactly one [1..1] [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-31883).
4. Medication Activity SHOULD include doseQuantity **OR** rateQuantity (CONF:1098-30800).

Figure 72: Medication Activity (V2) Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- \*\* Medication Activity (V2) \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"

extension="2014-06-09"/>

<id root="6c844c75-aa34-411c-b7bd-5e4a9f206e29"/>

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="20120318"/>

</effectiveTime>

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="12" unit="h"/>

</effectiveTime>

<routeCode code="C38288"

codeSystem="2.16.840.1.113883.3.26.1.1"

codeSystemName="NCI Thesaurus"

displayName="ORAL"/>

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- \*\* Medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.23"

extension="2014-06-09"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee8"/>

<manufacturedMaterial>

<code code="197380"

displayName="Atenolol 25 MG Oral Tablet"

codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<!-- \*\* Indication \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"

extension="2014-06-09"/>

<id root="e63166c7-6482-4a44-83a1-37ccdbde725b"/>

<code code="75321-0"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Clinical finding"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="38341003"

displayName="Hypertension"

codeSystem="2.16.840.1.113883.6.96"/>

</observation>

</entryRelationship>

</substanceAdministration>

Figure 73: No Known Medications Example

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="true">

<!-- \*\* Medication activity \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />

<id root="072f00fc-4f9d-4516-8d6f-ed00ed523fe0" />

<statusCode code="active" />

<effectiveTime xsi:type="IVL\_TS">

<low value="20110103" />

</effectiveTime>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- \*\* Medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

<manufacturedMaterial>

<code nullFlavor="OTH" codeSystem="2.16.840.1.113883.6.88">

<translation code="410942007" displayName="drug or medication" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />

</code>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Medication Active (V4)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01 (open)]

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Table 115: Medication Active (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) |  |

This template represents the QDM datatype: Medication, Active.  
Data elements that meet criteria using this datatype should document that the medication indicated by the QDM category and its corresponding value set is being taken by the patient. Keep in mind that when this datatype is used with timing relationships, the criterion is looking for a medication being taken for the time frame indicated by the timing relationships (which could be in the past).

This datatype represents a period of time when a medication is considered active for an individual. This may be medications that the patient has taken in the past and is no longer taking or medications that the patient is currently taking. For medications that a patient has taken in the past the effectiveTime will represent the period of time over which the patient was actively taking the medication. A time/date stamp is required. For currently active medications the effectiveTime will contain a low value which equates to the time the patient started taking medication and a nullFlavored high value. ActStatus is constrained to “active” and moodCode is constrained to “EVN”.  
Quality measures are sometimes interested in the total time a patient has been on a medication over time (for example, how many total years a patient has been on birth control hormones in the past 5 years). This cumulative medication duration would be represented as separate substance administration and the cumulative duration calculated. For example, the sum of the number of medication dispensed days x number of medication refills over a set period of time, excluding any gaps during which a medication was not dispensed. For example, if a medication was prescribed for 30 days with three refills, followed by a gap of three months, then prescribed again for 60 days with two refills, the cumulative medication duration for would be (30 x 3) + (60 x 2) = 210 days over the 10-month period.

Table 116: Medication Active (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01) | | | | | |
| @moodCode | 1..1 | SHALL |  | [3343-28861](#C_3343-28861) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28079](#C_3343-28079) |  |
| templateId | 1..1 | SHALL |  | [3343-28858](#C_3343-28858) |  |
| @root | 1..1 | SHALL |  | [3343-28860](#C_3343-28860) | 2.16.840.1.113883.10.20.24.3.41 |
| @extension | 1..1 | SHALL |  | [3343-28654](#C_3343-28654) | 2017-08-01 |
| statusCode | 1..1 | SHALL |  | [3343-28859](#C_3343-28859) |  |
| @code | 1..1 | SHALL |  | [3343-28655](#C_3343-28655) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |

1. Conforms to [Medication Activity (V2)](#Medication_Activity_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28861).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28079).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28858) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.41" (CONF:3343-28860).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28654).
5. SHALL contain exactly one [1..1] statusCode (CONF:3343-28859).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-28655).

Figure 74: Medication Active (V4) Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- Conforms to C-CDA R2 Medication Activity (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09"/>

<!-- Medication Active (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.41" extension="2017-08-01"/>

<id root="c0ea7bf3-50e7-4e7a-83a3-e5a9ccbb8541"/>

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS">

<!-- QDM Attribute: Relevant Period startTime -->

<low value="20170301"/>

</effectiveTime>

<!-- QDM Attribute: Frequency -->

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="6" unit="h"/>

</effectiveTime>

<!-- QDM Attribute: Route -->

<routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus" displayName="ORAL"/>

<!-- QDM Attribute: Dose -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="105152" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Medication Administered (V4)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01 (open)]

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Table 117: Medication Administered (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional) |

This template represents both QDM data types: Medication Administered and Substance Administered.  
It represents substance administrations that have actually occurred (e.g., pills ingested or injections given)  
QDM Attribute: Relevant Period. The startTime of relevant period corresponds to when a single medication administration event starts (e.g., the initiation of an intravenous infusion, or administering a pill or IM injection to a patient). The stopTime of relevant period corresponds to when a single medication administration event ends (e.g., the end time of the intravenous infusion, or the administration of a pill or IM injection is completed - for pills and IM injections, the start and stop times are the same)  
Quality measures are sometimes interested in the total time a patient has been on a medication over time (for example, how many total years a patient has been on birth control hormones in the past 5 years). This cumulative medication duration would be represented as separate contained substance administrations and the cumulative duration calculated. For example, the sum of the number of medication dispensed days x number of medication refills over a set period of time, excluding any gaps during which a medication was not dispensed. For example, if a medication was prescribed for 30 days with three refills, followed by a gap of three months, then prescribed again for 60 days with two refills, the cumulative medication duration for would be (30 x 3) + (60 x 2) = 210 days over the 10-month period.  
QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 118: Medication Administered (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-12444](#C_3343-12444) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [3343-12445](#C_3343-12445) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28080](#C_3343-28080) |  |
| templateId | 1..1 | SHALL |  | [3343-12446](#C_3343-12446) |  |
| @root | 1..1 | SHALL |  | [3343-12447](#C_3343-12447) | 2.16.840.1.113883.10.20.24.3.42 |
| @extension | 1..1 | SHALL |  | [3343-27023](#C_3343-27023) | 2017-08-01 |
| statusCode | 1..1 | SHALL |  | [3343-12452](#C_3343-12452) |  |
| @code | 1..1 | SHALL |  | [3343-13241](#C_3343-13241) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| entryRelationship | 0..1 | MAY |  | [3343-27022](#C_3343-27022) |  |
| @typeCode | 1..1 | SHALL |  | [3343-27024](#C_3343-27024) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27162](#C_3343-27162) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Medication Activity (V2)](#Medication_Activity_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-12444).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12445).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28080).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-12446) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.42" (CONF:3343-12447).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27023).
6. SHALL contain exactly one [1..1] statusCode (CONF:3343-12452).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-13241).
7. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27022) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-27024).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27162).

Figure 75: Medication Administered (V4) Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- C-CDA R2.1 Medication Activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09"/>

<!-- Medication Administered (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.42" extension="2017-08-01"/>

<id root="9069c123-80ad-47c8-a633-9dc02018ae56"/>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="20170301150000+0500"/>

<high value="20170301150000+0500"/>

</effectiveTime>

<!-- QDM Attribute: Frequency -->

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="6" unit="h"/>

</effectiveTime>

<!-- QDM Attribute: Route -->

<routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus" displayName="ORAL"/>

<!-- QDM Attribute: Dosage -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="105152" codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Medication Dispense (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 (open)]

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Table 119: Medication Dispense (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional) | [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (optional)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Medication Information (V2)](#E_Medication_Information_V2) (optional)  [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (optional) |

This template records the act of supplying medications (i.e., dispensing).

Table 120: Medication Dispense (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7451](#C_1098-7451) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [1098-7452](#C_1098-7452) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-7453](#C_1098-7453) |  |
| @root | 1..1 | SHALL |  | [1098-10505](#C_1098-10505) | 2.16.840.1.113883.10.20.22.4.18 |
| @extension | 1..1 | SHALL |  | [1098-32580](#C_1098-32580) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7454](#C_1098-7454) |  |
| statusCode | 1..1 | SHALL |  | [1098-7455](#C_1098-7455) |  |
| @code | 1..1 | SHALL |  | [1098-32361](#C_1098-32361) | urn:oid:2.16.840.1.113883.3.88.12.80.64 (Medication Fill Status) |
| effectiveTime | 0..1 | SHOULD |  | [1098-7456](#C_1098-7456) |  |
| repeatNumber | 0..1 | SHOULD |  | [1098-7457](#C_1098-7457) |  |
| quantity | 0..1 | SHOULD |  | [1098-7458](#C_1098-7458) |  |
| product | 0..1 | MAY |  | [1098-7459](#C_1098-7459) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-15607](#C_1098-15607) | [Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09](#E_Medication_Information_V2) |
| product | 0..1 | MAY |  | [1098-9331](#C_1098-9331) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-31696](#C_1098-31696) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| performer | 0..1 | MAY |  | [1098-7461](#C_1098-7461) |  |
| assignedEntity | 1..1 | SHALL |  | [1098-7467](#C_1098-7467) |  |
| addr | 0..1 | SHOULD |  | [1098-7468](#C_1098-7468) | [US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2](#U_US_Realm_Address_ADUSFIELDED) |
| entryRelationship | 0..1 | MAY |  | [1098-7473](#C_1098-7473) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7474](#C_1098-7474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [1098-15606](#C_1098-15606) | [Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09](#E_Medication_Supply_Order_V2) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7451).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7452).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7453) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.18" (CONF:1098-10505).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32580).
4. SHALL contain at least one [1..\*] id (CONF:1098-7454).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-7455).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Medication Fill Status urn:oid:2.16.840.1.113883.3.88.12.80.64 STATIC 2014-04-23 (CONF:1098-32361).
6. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7456).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

1. SHOULD contain zero or one [0..1] repeatNumber (CONF:1098-7457).
2. SHOULD contain zero or one [0..1] quantity (CONF:1098-7458).
3. MAY contain zero or one [0..1] product (CONF:1098-7459) such that it
   1. SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-15607).
4. MAY contain zero or one [0..1] product (CONF:1098-9331) such that it
   1. SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31696).
5. MAY contain zero or one [0..1] performer (CONF:1098-7461).
   1. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1098-7467).
      1. This assignedEntity SHOULD contain zero or one [0..1] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1098-7468).
         1. The content of addr SHALL be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:1098-10565).
6. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7473) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7474).
   2. SHALL contain exactly one [1..1] [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-15606).
7. A supply act SHALL contain one product/Medication Information *OR* one product/Immunization Medication Information template (CONF:1098-9333).

Figure 76: Medication Dispense (V2) Example

<supply classCode="SPLY" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09" />

<id root="1.2.3.4.56789.1" extension="cb734647-fc99-424c-a864-7e3cda82e704" />

<statusCode code="completed" />

<effectiveTime value="201208151450-0800" />

<repeatNumber value="1" />

<quantity value="75" />

<product>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

. . .

</manufacturedProduct>

</product>

<performer>

<assignedEntity>

. . .

</assignedEntity>

</performer>

</supply>

Medication Dispensed (V5)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01 (open)]

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Table 121: Medication Dispensed (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Dispensed Act (V3)](#E_Medication_Dispensed_Act_V3) (required) | [Author](#U_Author) (required)  [Days Supplied](#E_Days_Supplied_) (optional) |

Together with the Medication Dispensed Act (V3) template, this template represents the QDM datatype: Medication, Dispensed. This template must be contained within the Medication Dispensed Act (V3) template.  
This datatype represents that a medication prescription has been filled by a pharmacy and the medication has been provided to the patient or patient proxy. In the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, dispensed is the closest health provider documentation of medication compliance. In settings where patients attest to taking medications in electronic format (perhaps a Personal Health Record), patient attestation of “medication taken” may be available.  
Timing: The time the medication dispensing event occurs; the Author dateTime.  
Timing: The Relevant Period addresses: startTime is when the first administration of the medication is expected. If not specified. the startTime defaults to the Author dateTime (the time the medication dispensing event occurs). stopTime is when the medication supply provided by the dispensing event is expected to be completed.

Table 122: Medication Dispensed (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-27528](#C_4388-27528) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [4388-27529](#C_4388-27529) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4388-13851](#C_4388-13851) |  |
| @root | 1..1 | SHALL |  | [4388-13852](#C_4388-13852) | 2.16.840.1.113883.10.20.24.3.45 |
| @extension | 1..1 | SHALL |  | [4388-26555](#C_4388-26555) | 2018-10-01 |
| statusCode | 1..1 | SHALL |  | [4388-19440](#C_4388-19440) |  |
| @code | 1..1 | SHALL |  | [4388-19441](#C_4388-19441) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4388-29215](#C_4388-29215) |  |
| low | 1..1 | SHALL |  | [4388-29216](#C_4388-29216) |  |
| high | 1..1 | SHALL |  | [4388-29217](#C_4388-29217) |  |
| author | 1..1 | SHALL |  | [4388-28910](#C_4388-28910) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [4388-29218](#C_4388-29218) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29222](#C_4388-29222) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF |
| participantRole | 1..1 | SHALL |  | [4388-29219](#C_4388-29219) |  |
| id | 1..\* | SHALL |  | [4388-29223](#C_4388-29223) |  |
| entryRelationship | 0..1 | MAY |  | [4388-28022](#C_4388-28022) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28023](#C_4388-28023) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| substanceAdministration | 1..1 | SHALL |  | [4388-28224](#C_4388-28224) |  |
| @classCode | 1..1 | SHALL |  | [4388-28226](#C_4388-28226) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [4388-28227](#C_4388-28227) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| effectiveTime | 0..1 | MAY |  | [4388-28909](#C_4388-28909) |  |
| @operator | 1..1 | SHALL |  | [4388-28911](#C_4388-28911) | A |
| routeCode | 0..1 | MAY |  | [4388-28225](#C_4388-28225) |  |
| doseQuantity | 0..1 | MAY |  | [4388-28913](#C_4388-28913) |  |
| consumable | 1..1 | SHALL |  | [4388-28229](#C_4388-28229) |  |
| manufacturedProduct | 1..1 | SHALL |  | [4388-28230](#C_4388-28230) |  |
| manufacturedMaterial | 1..1 | SHALL |  | [4388-28231](#C_4388-28231) |  |
| @nullFlavor | 1..1 | SHALL |  | [4388-28232](#C_4388-28232) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| entryRelationship | 0..1 | MAY |  | [4388-29220](#C_4388-29220) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29224](#C_4388-29224) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [4388-29221](#C_4388-29221) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01](#E_Days_Supplied_) |

1. Conforms to [Medication Dispense (V2)](#E_Medication_Dispense_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-27528).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-27529).
4. SHALL contain exactly one [1..1] templateId (CONF:4388-13851) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.45" (CONF:4388-13852).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-26555).
5. SHALL contain exactly one [1..1] statusCode (CONF:4388-19440).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4388-19441).
6. MAY contain zero or one [0..1] effectiveTime (CONF:4388-29215).  
   Note: QDM Attribute: Relevant Period
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:4388-29216).  
      Note: startTime = when the first administration of the medication is expected. If not specified. the startTime defaults to the Author dateTime (the time the medication dispensing event occurs).
   2. The effectiveTime, if present, SHALL contain exactly one [1..1] high (CONF:4388-29217).  
      Note: stopTime = when the medication supply provided by the dispensing event is expected to be completed.
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-28910).  
   Note: QDM Attribute: Author dateTime – the time the medication dispensing event occurs; QDM Attribute: dispenserId – author/assignedAuthor/id
8. MAY contain zero or one [0..1] participant (CONF:4388-29218) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4388-29222).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4388-29219).
      1. This participantRole SHALL contain at least one [1..\*] id (CONF:4388-29223).  
         Note: QDM Attribute: prescriberId
9. MAY contain zero or one [0..1] entryRelationship (CONF:4388-28022) such that it  
   Note: QDM Attribute: Dosage, Frequency, Route
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28023).
   2. SHALL contain exactly one [1..1] substanceAdministration (CONF:4388-28224).
      1. This substanceAdministration SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-28226).
      2. This substanceAdministration SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-28227).
      3. This substanceAdministration MAY contain zero or one [0..1] effectiveTime (CONF:4388-28909) such that it  
         Note: QDM Attribute: Frequency - (e.g., administration times per day).
         1. SHALL contain exactly one [1..1] @operator="A" (CONF:4388-28911).
         2. *SHALL* contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:1098-28499) (CONF:4388-28912).
      4. This substanceAdministration MAY contain zero or one [0..1] routeCode (CONF:4388-28225).  
         Note: QDM Attribute: Route
      5. This substanceAdministration MAY contain zero or one [0..1] doseQuantity (CONF:4388-28913).  
         Note: QDM Attribute: Dosage
      6. This substanceAdministration SHALL contain exactly one [1..1] consumable (CONF:4388-28229).
         1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:4388-28230).
            1. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:4388-28231).

This manufacturedMaterial SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4388-28232).

1. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29220) such that it  
   Note: QDM Attribute: Days Supplied
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29224).
   2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4388-29221).
2. This template *SHALL* be contained by a Medication Dispensed Act (V3) (CONF:4388-28908).

Figure 77: Medication Dispensed (V5) Example

<!-- Must be contained in the Medication Dispensed Act (V3) template to represent the Medication, Dispensed QDM data type -->

<supply classCode="SPLY" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Medication Dispense (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09"/>

<!-- Medication Dispensed (V5) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.45" extension="2018-10-01"/>

<id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>

<statusCode code="completed"/>

<author>

<time value="2018050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Refills -->

<repeatNumber value="4"/>

<product>

<manufacturedProduct classCode="MANU">

<!-- C-CDA R2 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="329498" codeSystem="2.16.840.1.113883.6.88"

displayName="Albuterol 0.09 MG/ACTUAT inhalant solution" codeSystemName="RxNorm"/>

</manufacturedMaterial>

</manufacturedProduct>

</product>

<entryRelationship typeCode="REFR">

<substanceAdministration classCode="SBADM" moodCode="EVN">

<!-- QDM Attribute: Frequency -->

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="6" unit="h"/>

</effectiveTime>

<!-- QDM Attribute: Route -->

<routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1"

codeSystemName="NCI Thesaurus" displayName="ORAL"/>

<!-- QDM Attribute: Dosage -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct>

<manufacturedMaterial nullFlavor="NA"/>

</manufacturedProduct>

</consumable>

</substanceAdministration>

</entryRelationship>

</supply>

Medication Dispensed Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01 (open)]

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Table 123: Medication Dispensed Act (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) (required) |

Table 124: Medication Dispensed Act (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-28562](#C_4388-28562) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4388-28563](#C_4388-28563) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [4388-28565](#C_4388-28565) |  |
| templateId | 1..1 | SHALL |  | [4388-28558](#C_4388-28558) |  |
| @root | 1..1 | SHALL |  | [4388-28560](#C_4388-28560) | 2.16.840.1.113883.10.20.24.3.139 |
| @extension | 1..1 | SHALL |  | [4388-28907](#C_4388-28907) | 2018-10-01 |
| id | 1..\* | SHALL |  | [4388-28564](#C_4388-28564) |  |
| code | 1..1 | SHALL |  | [4388-28567](#C_4388-28567) |  |
| @code | 1..1 | SHALL |  | [4388-28568](#C_4388-28568) | SPLY |
| @codeSystem | 1..1 | SHALL |  | [4388-28569](#C_4388-28569) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6 |
| entryRelationship | 1..1 | SHALL |  | [4388-28557](#C_4388-28557) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28561](#C_4388-28561) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| supply | 1..1 | SHALL |  | [4388-28566](#C_4388-28566) | [Medication Dispensed (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01](#E_Medication_Dispensed_V5) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-28562).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-28563).
3. MAY contain zero or one [0..1] @negationInd (CONF:4388-28565).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4388-28558) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.139" (CONF:4388-28560).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-28907).
5. SHALL contain at least one [1..\*] id (CONF:4388-28564).
6. SHALL contain exactly one [1..1] code (CONF:4388-28567).
   1. This code SHALL contain exactly one [1..1] @code="SPLY" supply (CONF:4388-28568).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-28569).
7. SHALL contain exactly one [1..1] entryRelationship (CONF:4388-28557) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-28561).
   2. SHALL contain exactly one [1..1] [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01) (CONF:4388-28566).

Figure 78: Medication Dispensed Act (V3) Example

<act classCode="ACT" moodCode="EVN">

<!-- Medication Dispensed Act (V3)-->

<templateId root="2.16.840.1.113883.10.20.24.3.139" extension="2018-10-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="supply" codeSystemName="ActClass"/>

<entryRelationship typeCode="SUBJ">

<supply classCode="SPLY" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Medication Dispense (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09"/>

<!-- Medication Dispensed (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.45" extension="2018-10-01"/>

<id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>

<statusCode code="completed"/>

<!-- QDM Attribute: Refills -->

<repeatNumber value="4"/>

<product>

<manufacturedProduct classCode="MANU">

<!-- C-CDA R2 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="329498" codeSystem="2.16.840.1.113883.6.88"

displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"

codeSystemName="RxNorm"/>

</manufacturedMaterial>

</manufacturedProduct>

</product>

...

</supply>

</entryRelationship>

</act>

Medication Free Text Sig

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.147 (closed)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 125: Medication Free Text Sig Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional) |  |

The template is available to explicitly identify the free text Sig within each medication.

An example free text sig: Thyroxin 150 ug, take one tab by mouth every morning.

Table 126: Medication Free Text Sig Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-32770](#C_81-32770) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [81-32771](#C_81-32771) | urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvnInt) |
| templateId | 1..1 | SHALL |  | [81-32753](#C_81-32753) |  |
| @root | 1..1 | SHALL |  | [81-32772](#C_81-32772) | 2.16.840.1.113883.10.20.22.4.147 |
| code | 1..1 | SHALL |  | [81-32775](#C_81-32775) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| @code | 1..1 | SHALL |  | [81-32780](#C_81-32780) | 76662-6 |
| @codeSystem | 1..1 | SHALL |  | [81-32781](#C_81-32781) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| text | 1..1 | SHALL |  | [81-32754](#C_81-32754) |  |
| reference | 1..1 | SHALL |  | [81-32755](#C_81-32755) |  |
| @value | 0..1 | SHOULD |  | [81-32756](#C_81-32756) |  |
| consumable | 1..1 | SHALL |  | [81-32776](#C_81-32776) |  |
| manufacturedProduct | 1..1 | SHALL |  | [81-32777](#C_81-32777) |  |
| manufacturedLabeledDrug | 1..1 | SHALL |  | [81-32778](#C_81-32778) |  |
| @nullFlavor | 1..1 | SHALL |  | [81-32779](#C_81-32779) | NA |

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-32770).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 STATIC 2011-04-03 (CONF:81-32771).  
   Note: moodCode must match the parent substanceAdministration EVN or INT
3. SHALL contain exactly one [1..1] templateId (CONF:81-32753) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.147" (CONF:81-32772).
4. SHALL contain exactly one [1..1] code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32775).
   1. This code SHALL contain exactly one [1..1] @code="76662-6" Instructions Medication (CONF:81-32780).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:81-32781).
5. SHALL contain exactly one [1..1] text (CONF:81-32754).

Reference into the section/text to a tag that only contains free text sig.

* 1. This text SHALL contain exactly one [1..1] reference (CONF:81-32755).
     1. This reference SHOULD contain zero or one [0..1] @value (CONF:81-32756).
        1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-32774).

1. SHALL contain exactly one [1..1] consumable (CONF:81-32776).
   1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:81-32777).
      1. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedLabeledDrug (CONF:81-32778).
         1. This manufacturedLabeledDrug SHALL contain exactly one [1..1] @nullFlavor="NA" Not Applicable (CONF:81-32779).

Figure 79: Medication Free Text Sig Example

<!-- moodCode matches the parent substanceAdministration EVN or INT -->

<substanceAdministration classCode=”SBADM” moodCode=”EVN”>

<templateId root=”2.16.840.1.113883.10.20.22.4.147”/>

<code code="76662-6"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Medication Instructions"/>

<text>

<!-- Reference into the section.text to a tag that ONLY contains free text SIG -->

<reference value="#AD1"/>

</text>

<consumable>

<manufacturedProduct>

<manufacturedLabeledDrug nullFlavor=”NA”/>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Medication Information (V2)

[manufacturedProduct: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 127: Medication Information (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (required)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (required)  [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) (optional)  [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional) |  |

A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

Table 128: Medication Information (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7408](#C_1098-7408) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [1098-7409](#C_1098-7409) |  |
| @root | 1..1 | SHALL |  | [1098-10506](#C_1098-10506) | 2.16.840.1.113883.10.20.22.4.23 |
| @extension | 1..1 | SHALL |  | [1098-32579](#C_1098-32579) | 2014-06-09 |
| id | 0..\* | MAY |  | [1098-7410](#C_1098-7410) |  |
| manufacturedMaterial | 1..1 | SHALL |  | [1098-7411](#C_1098-7411) |  |
| code | 1..1 | SHALL |  | [1098-7412](#C_1098-7412) | urn:oid:2.16.840.1.113762.1.4.1010.4 (Medication Clinical Drug) |
| translation | 0..\* | MAY |  | [1098-31884](#C_1098-31884) | urn:oid:2.16.840.1.113762.1.4.1010.2 (Clinical Substance) |
| manufacturerOrganization | 0..1 | MAY |  | [1098-7416](#C_1098-7416) |  |

1. SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:1098-7408).
2. SHALL contain exactly one [1..1] templateId (CONF:1098-7409) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:1098-10506).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32579).
3. MAY contain zero or more [0..\*] id (CONF:1098-7410).
4. SHALL contain exactly one [1..1] manufacturedMaterial (CONF:1098-7411).  
   Note: A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).
   1. This manufacturedMaterial SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4 DYNAMIC (CONF:1098-7412).
      1. This code MAY contain zero or more [0..\*] translation, which MAY be selected from ValueSet Clinical Substance urn:oid:2.16.840.1.113762.1.4.1010.2 DYNAMIC (CONF:1098-31884).
5. MAY contain zero or one [0..1] manufacturerOrganization (CONF:1098-7416).

Figure 80: Medication Information (V2) Example

<manufacturedProduct classCode="MANU">

<!-- \*\* Medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />

<manufacturedMaterial>

<code code="745679" displayName="200 ACTUAT Albuterol 0.09 MG/ACTUAT Metered Dose Inhaler" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />

</manufacturedMaterial>

<manufacturerOrganization>

<name>Medication Factory Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

Medication Supply Order (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 129: Medication Supply Order (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional) | [Medication Information (V2)](#E_Medication_Information_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (optional) |

This template records the intent to supply a patient with medications.

Table 130: Medication Supply Order (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7427](#C_1098-7427) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [1098-7428](#C_1098-7428) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [1098-7429](#C_1098-7429) |  |
| @root | 1..1 | SHALL |  | [1098-10507](#C_1098-10507) | 2.16.840.1.113883.10.20.22.4.17 |
| @extension | 1..1 | SHALL |  | [1098-32578](#C_1098-32578) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7430](#C_1098-7430) |  |
| statusCode | 1..1 | SHALL |  | [1098-7432](#C_1098-7432) |  |
| @code | 1..1 | SHALL |  | [1098-32362](#C_1098-32362) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 0..1 | SHOULD | IVL\_TS | [1098-15143](#C_1098-15143) |  |
| high | 1..1 | SHALL |  | [1098-15144](#C_1098-15144) |  |
| repeatNumber | 0..1 | SHOULD |  | [1098-7434](#C_1098-7434) |  |
| quantity | 0..1 | SHOULD |  | [1098-7436](#C_1098-7436) |  |
| product | 0..1 | MAY |  | [1098-7439](#C_1098-7439) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-16093](#C_1098-16093) | [Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09](#E_Medication_Information_V2) |
| product | 0..1 | MAY |  | [1098-9334](#C_1098-9334) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-31695](#C_1098-31695) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| author | 0..1 | MAY |  | [1098-7438](#C_1098-7438) |  |
| entryRelationship | 0..1 | MAY |  | [1098-7442](#C_1098-7442) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7444](#C_1098-7444) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-7445](#C_1098-7445) | true |
| act | 1..1 | SHALL |  | [1098-31391](#C_1098-31391) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7427).
2. SHALL contain exactly one [1..1] @moodCode="INT" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7428).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7429) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.17" (CONF:1098-10507).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32578).
4. SHALL contain at least one [1..\*] id (CONF:1098-7430).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-7432).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ActStatus urn:oid:2.16.840.1.113883.1.11.15933 DYNAMIC (CONF:1098-32362).
6. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-15143) such that it
   1. SHALL contain exactly one [1..1] high (CONF:1098-15144).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

1. SHOULD contain zero or one [0..1] repeatNumber (CONF:1098-7434).
2. SHOULD contain zero or one [0..1] quantity (CONF:1098-7436).
3. MAY contain zero or one [0..1] product (CONF:1098-7439) such that it
   1. SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16093).
4. MAY contain zero or one [0..1] product (CONF:1098-9334) such that it
   1. SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31695).
      1. A supply act SHALL contain one product/Medication Information *OR* one product/Immunization Medication Information template (CONF:1098-16870).
5. MAY contain zero or one [0..1] author (CONF:1098-7438).
6. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7442).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7444).
   2. The entryRelationship, if present, SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7445).
   3. The entryRelationship, if present, SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31391).

Figure 81: Medication Supply Order (V2) Example

<supply classCode="SPLY" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.17" extension="2014-06-09" />

<id root="aba2fc75-1a43-435f-8309-d24e4be5f1cd" />

<statusCode code="completed" />

<effectiveTime xsi:type="IVL\_TS">

<low value="20070103" />

<high nullFlavor="UNK" />

</effectiveTime>

<repeatNumber value="1" />

<quantity value="75" />

<product>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

. . .

</manufacturedProduct>

</product>

<author>

. . .

</author>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

. . .

</act>

</entryRelationship>

</supply>

Patient Care Experience (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 131: Patient Care Experience (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Author](#U_Author) (required) |

This template represents the QDM Datatype: Patient Care Experience.  
Patient Care Experience describes information collected from patients about their perceptions of the care they received. It is usually measured with a validated survey tool. The most common tool is the Consumer Assessment of Healthcare Providers and Systems.  
QDM Attribute: Author dateTime is the time that the care experience is recorded.

Table 132: Patient Care Experience (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-12464](#C_3343-12464) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12465](#C_3343-12465) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28085](#C_3343-28085) |  |
| templateId | 1..1 | SHALL |  | [3343-12466](#C_3343-12466) |  |
| @root | 1..1 | SHALL |  | [3343-12467](#C_3343-12467) | 2.16.840.1.113883.10.20.24.3.48 |
| @extension | 1..1 | SHALL |  | [3343-27290](#C_3343-27290) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-12469](#C_3343-12469) |  |
| code | 1..1 | SHALL |  | [3343-12470](#C_3343-12470) |  |
| @code | 1..1 | SHALL |  | [3343-13037](#C_3343-13037) | 77218-6 |
| @codeSystem | 1..1 | SHALL |  | [3343-27555](#C_3343-27555) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3343-12471](#C_3343-12471) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3343-13038](#C_3343-13038) |  |
| author | 1..1 | SHALL |  | [3343-28932](#C_3343-28932) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |

1. SHALL contain exactly one [1..1] @classCode="OBS" observation, which SHALL be selected from CodeSystem HL7ActClass (urn:oid:2.16.840.1.113883.5.6) (CONF:3343-12464).
2. SHALL contain exactly one [1..1] @moodCode="EVN" event, which SHALL be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12465).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28085).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-12466) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.48" (CONF:3343-12467).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27290).
5. SHALL contain at least one [1..\*] id (CONF:3343-12469).
6. SHALL contain exactly one [1..1] code (CONF:3343-12470).
   1. This code SHALL contain exactly one [1..1] @code="77218-6" Patient satisfaction with healthcare delivery (CONF:3343-13037).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-27555).
7. SHALL contain exactly one [1..1] statusCode="completed", which SHALL be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:3343-12471).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-13038).
9. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28932).  
   Note: QDM Attribute: Author dateTime - the time that the care experience is recorded

Figure 82: Patient Care Experience (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Care Experience (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.48" extension="2017-08-01"/>

<id root="ee6d068d-f209-4913-b999-9efa74358914"/>

<code code="77218-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient satisfaction with healthcare delivery"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="185481008" displayName="Dissatisfied with doctor (finding)" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

Patient Characteristic Clinical Trial Participant (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 133: Patient Characteristic Clinical Trial Participant (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional) |

This template represents the QDM datatype: Patient Characteristic, Clinical Trial Participant.  
This datatype indicates that the patient is a clinical trial participant. MoodCode is constrained to “EVN” and statusCode is constrained to “active”.

Table 134: Patient Characteristic Clinical Trial Participant (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-16711](#C_3343-16711) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12526](#C_3343-12526) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28086](#C_3343-28086) |  |
| templateId | 1..1 | SHALL |  | [3343-12537](#C_3343-12537) |  |
| @root | 1..1 | SHALL |  | [3343-12538](#C_3343-12538) | 2.16.840.1.113883.10.20.24.3.51 |
| @extension | 1..1 | SHALL |  | [3343-27026](#C_3343-27026) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-26996](#C_3343-26996) |  |
| code | 1..1 | SHALL |  | [3343-13041](#C_3343-13041) |  |
| @code | 1..1 | SHALL |  | [3343-28130](#C_3343-28130) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28131](#C_3343-28131) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3343-13042](#C_3343-13042) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 1..1 | SHALL |  | [3343-12536](#C_3343-12536) |  |
| low | 1..1 | SHALL |  | [3343-27668](#C_3343-27668) |  |
| high | 0..1 | MAY |  | [3343-27669](#C_3343-27669) |  |
| value | 1..1 | SHALL | CD | [3343-16712](#C_3343-16712) |  |
| entryRelationship | 0..1 | MAY |  | [3343-12531](#C_3343-12531) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12532](#C_3343-12532) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-12533](#C_3343-12533) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-16711).
2. SHALL contain exactly one [1..1] @moodCode="EVN" event, which SHALL be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12526).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28086).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-12537) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.51" (CONF:3343-12538).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27026).
5. SHALL contain at least one [1..\*] id (CONF:3343-26996).
6. SHALL contain exactly one [1..1] code (CONF:3343-13041).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3343-28130).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28131).
7. SHALL contain exactly one [1..1] statusCode="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-13042).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-12536).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-27668).  
      Note: startTime - the time the clinical trial started
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-27669).  
      Note: stopTime – the time the clinical trial ended
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-16712).
10. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12531) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" has reason, which SHALL be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12532).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-12533).

Figure 83: Patient Characteristic Clinical Trial Participant (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Characteristic Clinical Trial Participant (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.51" extension="2017-08-01"/>

<id root="b42132cb-9ea4-4d84-93ce-4b5cd2d2ac3d"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="active"/>

<effectiveTime>

<low value="201706151030"/>

</effectiveTime>

<value xsi:type="CD" code="428024001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="clinical trial participant"/>

</observation>

Patient Characteristic Observation Assertion (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 135: Patient Characteristic Observation Assertion (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) |  |

This template represents the QDM datatype: Patient Characteristic.  
Patient Characteristic represents specific factors about a patient. Included are demographics, behavioral factors, social or cultural factors, available resources, and preferences. Behaviors reference responses or actions that affect (either positively or negatively) health or healthcare. Included in this category are mental health issues, adherence issues unrelated to other factors or resources, coping ability, grief issues, and substance use/abuse. Social/cultural factors are characteristics of an individual related to family/caregiver support, education, and literacy (including health literacy), primary language, cultural beliefs (including health beliefs), persistent life stressors, spiritual and religious beliefs, immigration status, and history of abuse or neglect. Resources are means available to a patient to meet health and healthcare needs, which might include caregiver support, insurance coverage, financial resources, and community resources to which the patient is already connected and from which the patient is receiving benefit. Preferences are choices made by patients and their caregivers relative to options for care or treatment (including scheduling, care experience, and meeting of personal health goals) and the sharing and disclosure of their health information.  
This is a pattern that can be used for any simple assertion observation of a patient characteristic that is not represented by one of the specific Patient Characteristics (Birth Date, Clinical Trial Participant, Ethnicity, Expired, Payer, Race or Sex).  
This template is to be used to represent the retired QDM Datatypes, Patient Characteristic, Gestational Age, Patient Characteristic Estimated Date of Conception, Patient Characteristic, ECOG Performance Status Poor and Patient Characteristic, Tobacco User and Non-User.

Table 136: Patient Characteristic Observation Assertion (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-16536](#C_3343-16536) | OBS |
| @moodCode | 1..1 | SHALL |  | [3343-16537](#C_3343-16537) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28623](#C_3343-28623) |  |
| templateId | 1..1 | SHALL |  | [3343-26962](#C_3343-26962) |  |
| @root | 1..1 | SHALL |  | [3343-26963](#C_3343-26963) | 2.16.840.1.113883.10.20.24.3.103 |
| @extension | 1..1 | SHALL |  | [3343-27781](#C_3343-27781) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-16538](#C_3343-16538) |  |
| code | 1..1 | SHALL |  | [3343-16544](#C_3343-16544) |  |
| @code | 1..1 | SHALL |  | [3343-16545](#C_3343-16545) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28135](#C_3343-28135) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3343-16539](#C_3343-16539) | completed |
| effectiveTime | 1..1 | SHALL |  | [3343-16540](#C_3343-16540) |  |
| low | 1..1 | SHALL |  | [3343-27670](#C_3343-27670) |  |
| high | 0..1 | MAY |  | [3343-27671](#C_3343-27671) |  |
| value | 1..1 | SHALL | CD | [3343-16541](#C_3343-16541) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-16536).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-16537).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28623).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-26962) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.103" (CONF:3343-26963).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27781).
5. SHALL contain at least one [1..\*] id (CONF:3343-16538).
6. SHALL contain exactly one [1..1] code (CONF:3343-16544).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:3343-16545).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28135).
7. SHALL contain exactly one [1..1] statusCode="completed" Completed (CONF:3343-16539).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-16540).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-27670).
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-27671).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-16541).

Figure 84: Patient Characteristic Observation Assertion (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Characteristic Observation Assertion (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.103" extension="2017-08-01"/>

<id root="94de1700-9629-40b4-b56d-a4eac5f48726"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="201506151030"/>

</effectiveTime>

<!-- Patient Characteristic -->

<value xsi:type="CD" code="422894000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"

displayName="Eastern Cooperative Oncology Group performance status - grade 2 (finding)"/>

</observation>

Patient Characteristic Payer

[observation: identifier urn:oid:2.16.840.1.113883.10.20.24.3.55 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 137: Patient Characteristic Payer Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional)  [Patient Data Section QDM (V6) - CMS](#S_Patient_Data_Section_QDM_V6_CMS) (required) |  |

This template represents the QDM Datatype: Patient Characteristic, Payer. This datatype represents the policy or program providing the coverage for the patient.

Table 138: Patient Characteristic Payer Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-14213](#C_67-14213) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [67-14214](#C_67-14214) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-12561](#C_67-12561) |  |
| @root | 1..1 | SHALL |  | [67-12562](#C_67-12562) | 2.16.840.1.113883.10.20.24.3.55 |
| id | 1..\* | SHALL |  | [67-12564](#C_67-12564) |  |
| code | 1..1 | SHALL |  | [67-12565](#C_67-12565) |  |
| @code | 1..1 | SHALL |  | [67-14029](#C_67-14029) | 48768-6 |
| @codeSystem | 1..1 | SHALL |  | [67-27009](#C_67-27009) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| effectiveTime | 1..1 | SHALL |  | [67-26933](#C_67-26933) |  |
| low | 1..1 | SHALL |  | [67-26934](#C_67-26934) |  |
| high | 0..1 | SHOULD |  | [67-26935](#C_67-26935) |  |
| value | 1..1 | SHALL | CD | [67-16710](#C_67-16710) | urn:oid:2.16.840.1.114222.4.11.3591 (Payer) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-14213).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-14214).
3. SHALL contain exactly one [1..1] templateId (CONF:67-12561) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.55" (CONF:67-12562).
4. SHALL contain at least one [1..\*] id (CONF:67-12564).
5. SHALL contain exactly one [1..1] code (CONF:67-12565).
   1. This code SHALL contain exactly one [1..1] @code="48768-6" Payment source (CONF:67-14029).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27009).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:67-26933).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:67-26934).  
      Note: startTime – The first day of insurance coverage with the referenced payer
   2. This effectiveTime SHOULD contain zero or one [0..1] high (CONF:67-26935).  
      Note: stopTime – The last day of insurance coverage with the referenced payer
7. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Payer urn:oid:2.16.840.1.114222.4.11.3591 DYNAMIC (CONF:67-16710).

Figure 85: Patient Characteristic Payer Example

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Characteristic Payer -->

<templateId root="2.16.840.1.113883.10.20.24.3.55" />

<id root="4ddf1cc3-e325-472e-ad76-b2c66a5ee164" />

<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"

displayName="Payment source" />

<statusCode code="completed" />

<effectiveTime>

<!-- QDM Attribute: Start Datetime -->

<low value="20110303" />

<!-- QDM Attribute: Stop Datetime -->

<high value="20160303" />

</effectiveTime>

<!-- Payer -->

<value xsi:type="CD" code="1" codeSystem="2.16.840.1.113883.3.221.5"

codeSystemName="Source of Payment Typology" displayName="Medicare" />

</observation>

Planned Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 139: Planned Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Indication (V2)](#Indication_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional) |

This template represents planned acts that are not classified as an observation or a procedure according to the HL7 RIM. Examples of these acts are a dressing change, the teaching or feeding of a patient or the providing of comfort measures.  
The priority of the activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the activity is intended to take place.

Table 140: Planned Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8538](#C_1098-8538) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-8539](#C_1098-8539) | urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure)) |
| templateId | 1..1 | SHALL |  | [1098-30430](#C_1098-30430) |  |
| @root | 1..1 | SHALL |  | [1098-30431](#C_1098-30431) | 2.16.840.1.113883.10.20.22.4.39 |
| @extension | 1..1 | SHALL |  | [1098-32552](#C_1098-32552) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8546](#C_1098-8546) |  |
| code | 1..1 | SHALL |  | [1098-31687](#C_1098-31687) |  |
| statusCode | 1..1 | SHALL |  | [1098-30432](#C_1098-30432) |  |
| @code | 1..1 | SHALL |  | [1098-32019](#C_1098-32019) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-30433](#C_1098-30433) |  |
| performer | 0..\* | MAY |  | [1098-30435](#C_1098-30435) |  |
| author | 0..1 | SHOULD |  | [1098-32020](#C_1098-32020) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-31067](#C_1098-31067) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31068](#C_1098-31068) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31069](#C_1098-31069) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-32021](#C_1098-32021) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32022](#C_1098-32022) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-32023](#C_1098-32023) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32024](#C_1098-32024) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32025](#C_1098-32025) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| act | 1..1 | SHALL |  | [1098-32026](#C_1098-32026) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8538).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2014-09-01 (CONF:1098-8539).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30430) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.39" (CONF:1098-30431).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32552).
4. SHALL contain at least one [1..\*] id (CONF:1098-8546).
5. SHALL contain exactly one [1..1] code (CONF:1098-31687).
   1. This code in a Planned Act SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) *OR* SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1098-32030).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-30432).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32019).

The effectiveTime in a planned act represents the time that the act should occur.

1. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-30433).

The clinician who is expected to carry out the act could be identified using act/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-30435).

The author in a planned act represents the clinician who is requesting or planning the act.

1. SHOULD contain zero or one [0..1] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32020).

The following entryRelationship represents the priority that a patient or a provider places on the activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31067) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31068).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31069).

The following entryRelationship represents the indication for the act.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32021) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32022).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32023).

The following entryRelationship captures any instructions associated with the planned act.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32024) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32025).
   2. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32026).

Figure 86: Planned Act (V2) Example

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09" />

<id root="7658963e-54da-496f-bf18-dea1dddaa3b0" />

<code code="423171007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Elevate head of bed" />

<statusCode code="active" />

<effectiveTime value="20130902" />

<author typeCode="AUT">

<!-- Author Participation -->

</author>

<entryRelationship typeCode="RSON">

<!-- Patient Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Provider Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Indication (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<!-- Instruction (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Planned Coverage -->

...

</entryRelationship>

</act>

Intervention Order (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 141: Intervention Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Intervention, Order.  
An intervention order is a request by a physician or appropriately licensed care provider to an appropriate provider or facility to perform a service and/or other type of action necessary for care. An example of this is an order for smoking cessation counseling or physical therapy.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 142: Intervention Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27353](#C_3343-27353) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-13742](#C_3343-13742) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28071](#C_3343-28071) |  |
| templateId | 1..1 | SHALL |  | [3343-13743](#C_3343-13743) |  |
| @root | 1..1 | SHALL |  | [3343-13744](#C_3343-13744) | 2.16.840.1.113883.10.20.24.3.31 |
| @extension | 1..1 | SHALL |  | [3343-26556](#C_3343-26556) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-13746](#C_3343-13746) |  |
| author | 1..1 | SHALL |  | [3343-27343](#C_3343-27343) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-13756](#C_3343-13756) |  |
| @typeCode | 1..1 | SHALL |  | [3343-13757](#C_3343-13757) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27159](#C_3343-27159) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Act (V2)](#E_Planned_Act_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27353).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13742).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28071).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13743) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.31" (CONF:3343-13744).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-26556).
6. SHALL contain exactly one [1..1] code (CONF:3343-13746).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27343).  
   Note: QDM Attribute: Author dateTime – the time the intervention order was signed
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-13756) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-13757).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27159).

Figure 87: Intervention Order (V4) Example

<act classCode="ACT" moodCode="RQO">

<!-- Conforms to C-CDA R2 Planned Act (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09"/>

<!-- Intervention Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.31" extension="2017-08-01"/>

<id root="db734647-fc99-424c-a864-7e3cda82e703"/>

<!-- Intervention -->

<code code="419553002" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD" displayName="diet education"/>

<statusCode code="active"/>

<author>

<!-- QDM Attribute: Author dateTime – the time the intervention order was signed -->

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>

</observation>

</entryRelationship>

</act>

Intervention Recommended (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2017-08-01 (open)]

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Table 143: Intervention Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Intervention, Recommended.  
An intervention recommendation is a recommendation for an influencing force or act to modify a given state of affairs. An intervention is any action carried out (by a healthcare provider or a consumer) to improve or maintain the health of a subject of care with the expectation of producing an outcome. An example of this is a recommendation for smoking cessation counseling.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the recommendation was signed, which is a single point in time. The time the activity is recommended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 144: Intervention Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27355](#C_3343-27355) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-13763](#C_3343-13763) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28073](#C_3343-28073) |  |
| templateId | 1..1 | SHALL |  | [3343-13764](#C_3343-13764) |  |
| @root | 1..1 | SHALL |  | [3343-13765](#C_3343-13765) | 2.16.840.1.113883.10.20.24.3.33 |
| @extension | 1..1 | SHALL |  | [3343-26557](#C_3343-26557) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-13767](#C_3343-13767) |  |
| author | 1..1 | SHALL |  | [3343-27349](#C_3343-27349) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-13777](#C_3343-13777) |  |
| @typeCode | 1..1 | SHALL |  | [3343-13778](#C_3343-13778) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27160](#C_3343-27160) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Act (V2)](#E_Planned_Act_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27355).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13763).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28073).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13764) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.33" (CONF:3343-13765).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-26557).
6. SHALL contain exactly one [1..1] code (CONF:3343-13767).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27349).  
   Note: QDM Attribute: Author dateTime – the time the recommendation was authored (i.e., provided to the patient)
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-13777) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-13778).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27160).

Figure 88: Intervention Recommended (V4) Example

<act classCode="ACT" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Act (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09"/>

<!-- Intervention Recommended (V4) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.33" extension="2017-08-01"/>

<id root="db734647-fc99-424c-a864-7e3cda82e703"/>

<!-- Intervention -->

<code code="225323000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD" displayName="Smoking cessation education (procedure)"/>

<statusCode code="active"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="160605003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Heavy cigarette smoker (20-39 cigs/day) (finding)"/>

</observation>

</entryRelationship>

</act>

Planned Coverage

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open)]

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Table 145: Planned Coverage Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Planned Procedure (V2)](#E_Planned_Procedure_V2) (optional)  [Planned Observation (V2)](#E_Planned_Observation_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional) | [Author Participation](#U_Author_Participation) (optional) |

This template represents the insurance coverage intended to cover an act or procedure.

Table 146: Planned Coverage Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-31945](#C_1098-31945) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-31946](#C_1098-31946) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [1098-31947](#C_1098-31947) |  |
| @root | 1..1 | SHALL |  | [1098-31948](#C_1098-31948) | 2.16.840.1.113883.10.20.22.4.129 |
| id | 1..\* | SHALL |  | [1098-31950](#C_1098-31950) |  |
| code | 1..1 | SHALL |  | [1098-31951](#C_1098-31951) |  |
| @code | 1..1 | SHALL |  | [1098-31952](#C_1098-31952) | 48768-6 |
| @codeSystem | 1..1 | SHALL |  | [1098-31953](#C_1098-31953) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [1098-31954](#C_1098-31954) |  |
| @code | 1..1 | SHALL |  | [1098-31955](#C_1098-31955) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active |
| author | 0..\* | MAY |  | [1098-32178](#C_1098-32178) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 1..1 | SHALL |  | [1098-31967](#C_1098-31967) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31968](#C_1098-31968) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [1098-31969](#C_1098-31969) |  |
| @classCode | 1..1 | SHALL |  | [1098-31970](#C_1098-31970) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-31971](#C_1098-31971) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| id | 1..\* | SHALL |  | [1098-31972](#C_1098-31972) |  |
| code | 1..1 | SHALL |  | [1098-31973](#C_1098-31973) | urn:oid:2.16.840.1.114222.4.11.3591 (Payer) |
| statusCode | 1..1 | SHALL |  | [1098-31974](#C_1098-31974) |  |
| @code | 1..1 | SHALL |  | [1098-31975](#C_1098-31975) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |

1. SHALL contain exactly one [1..1] @classCode="ACT" act (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31945).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31946).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-31947) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.129" (CONF:1098-31948).
4. SHALL contain at least one [1..\*] id (CONF:1098-31950).
5. SHALL contain exactly one [1..1] code (CONF:1098-31951).
   1. This code SHALL contain exactly one [1..1] @code="48768-6" Payment Sources (CONF:1098-31952).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31953).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-31954).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31955).
7. MAY contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32178).
8. SHALL contain exactly one [1..1] entryRelationship (CONF:1098-31967) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31968).
   2. SHALL contain exactly one [1..1] act (CONF:1098-31969).
      1. This act SHALL contain exactly one [1..1] @classCode="ACT" ACT (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31970).
      2. This act SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31971).

These act/identifiers are unique identifiers for the policy or program providing the coverage.

* + 1. This act SHALL contain at least one [1..\*] id (CONF:1098-31972).
    2. This act SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet Payer urn:oid:2.16.840.1.114222.4.11.3591 DYNAMIC (CONF:1098-31973).
    3. This act SHALL contain exactly one [1..1] statusCode (CONF:1098-31974).
       1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31975).

Figure 89: Planned Coverage Example

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.129" />

<id root="03f5e10b-7e79-4610-9626-d2984ff10cc1" />

<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Payment Sources" />

<statusCode code="active" />

<entryRelationship typeCode="COMP">

<act classCode="ACT" moodCode="INT">

<!-- These act/identifiers are unique identifiers

for the policy or program providing the coverage. -->

<id root="4c9a3be1-5f09-46dd-88e7-14c8ec612e4c" />

<code code="111" displayName="Medicare HMO"

codeSystemName="Source of Payment Typology (PHDSC)"

codeSystem="2.16.840.1.113883.3.221.5" />

<statusCode code="active" />

</act>

</entryRelationship>

</act>

Planned Encounter (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 147: Planned Encounter (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Service Delivery Location](#E_Service_Delivery_Location) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Author Participation](#U_Author_Participation) (optional) |

This template represents a planned or ordered encounter. The type of encounter (e.g., comprehensive outpatient visit) is represented. Clinicians participating in the encounter and the location of the planned encounter may be captured. The priority that the patient and providers place on the encounter may be represented.

Table 148: Planned Encounter (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8564](#C_1098-8564) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1098-8565](#C_1098-8565) | urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure)) |
| templateId | 1..1 | SHALL |  | [1098-30437](#C_1098-30437) |  |
| @root | 1..1 | SHALL |  | [1098-30438](#C_1098-30438) | 2.16.840.1.113883.10.20.22.4.40 |
| @extension | 1..1 | SHALL |  | [1098-32553](#C_1098-32553) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8567](#C_1098-8567) |  |
| code | 0..1 | SHOULD |  | [1098-31032](#C_1098-31032) | urn:oid:2.16.840.1.113883.11.20.9.52 (Encounter Planned) |
| statusCode | 1..1 | SHALL |  | [1098-30439](#C_1098-30439) |  |
| @code | 1..1 | SHALL |  | [1098-31880](#C_1098-31880) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-30440](#C_1098-30440) |  |
| performer | 0..\* | MAY |  | [1098-30442](#C_1098-30442) |  |
| assignedEntity | 1..1 | SHALL |  | [1098-31874](#C_1098-31874) |  |
| author | 0..\* | SHOULD |  | [1098-32045](#C_1098-32045) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-30443](#C_1098-30443) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31875](#C_1098-31875) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1098-31876](#C_1098-31876) | [Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32](#E_Service_Delivery_Location) |
| entryRelationship | 0..1 | MAY |  | [1098-31033](#C_1098-31033) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31034](#C_1098-31034) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31035](#C_1098-31035) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-31877](#C_1098-31877) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31878](#C_1098-31878) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-31879](#C_1098-31879) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |

1. SHALL contain exactly one [1..1] @classCode="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8564).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2014-09-01 (CONF:1098-8565).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30437) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.40" (CONF:1098-30438).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32553).
4. SHALL contain at least one [1..\*] id (CONF:1098-8567).

Records the type of encounter ordered or recommended.

1. SHOULD contain zero or one [0..1] code, which SHOULD be selected from ValueSet Encounter Planned urn:oid:2.16.840.1.113883.11.20.9.52 DYNAMIC (CONF:1098-31032).
2. SHALL contain exactly one [1..1] statusCode (CONF:1098-30439).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31880).
3. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-30440).

Performers represent clinicians who are responsible for assessing and treating the patient.

1. MAY contain zero or more [0..\*] performer (CONF:1098-30442) such that it
   1. SHALL contain exactly one [1..1] assignedEntity (CONF:1098-31874).

The author in a planned encounter represents the clinician who is requesting or planning the encounter.

1. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32045).

This location participation captures where the planned or ordered encounter may take place.

1. MAY contain zero or more [0..\*] participant (CONF:1098-30443) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1098-31875).
   2. SHALL contain exactly one [1..1] [Service Delivery Location](#E_Service_Delivery_Location) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-31876).

The following entryRelationship represents the priority that a patient or a provider places on the encounter.

1. MAY contain zero or one [0..1] entryRelationship (CONF:1098-31033) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31034).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31035).

The following entryRelationship captures the reason for the planned or ordered encounter

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31877) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31878).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31879).

Figure 90: Planned Encounter (V2) Example

<entry>

<encounter moodCode="INT" classCode="ENC">

<templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09" />

<!-- Planned Encounter V2 template -->

<id root="9a6d1bac-17d3-4195-89a4-1121bc809b4d" />

<code code="185349003" displayName="encounter for check-up (procedure)" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"> </code>

<statusCode code="active" />

<effectiveTime value="20130615" />

<performer>

<assignedEntity>

...

</assignedEntity>

</performer>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Priority Preference-->

<templateId root="2.16.840.1.113883.10.20.22.4.142" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Priority Preference-->

...

</observation>

</entryRelationship>

</encounter>

</entry>

Encounter Order (V4)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01 (open)]

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Table 149: Encounter Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Order Act (V2)](#E_Encounter_Order_Act_V2) (required) | [Facility Location (V2)](#SE_Facility_Location_V2) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template, along with Encounter Order Act (V2) template, represents the QDM datatype: Encounter, Order. This template must be contained in an Encounter Order Act (V2) template.  
This datatype describes an order for an encounter. This clinical statement describes the ordered interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.

Table 150: Encounter Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27534](#C_3343-27534) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [3343-11932](#C_3343-11932) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| templateId | 1..1 | SHALL |  | [3343-11933](#C_3343-11933) |  |
| @root | 1..1 | SHALL |  | [3343-11934](#C_3343-11934) | 2.16.840.1.113883.10.20.24.3.22 |
| @extension | 1..1 | SHALL |  | [3343-27064](#C_3343-27064) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-11936](#C_3343-11936) |  |
| author | 1..1 | SHALL |  | [3343-27341](#C_3343-27341) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [3343-29136](#C_3343-29136) | [Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01](#SE_Facility_Location_V2) |
| entryRelationship | 0..1 | MAY |  | [3343-11950](#C_3343-11950) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11951](#C_3343-11951) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-11952](#C_3343-11952) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Encounter (V2)](#E_Planned_Encounter_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27534).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11932).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11933) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.22" (CONF:3343-11934).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27064).
5. SHALL contain exactly one [1..1] code (CONF:3343-11936).  
   Note: QDM Attribute: Code
6. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27341).  
   Note: QDM Attribute: Author dateTime - the time the order was signed
7. MAY contain zero or one [0..1] [Facility Location (V2)](#SE_Facility_Location_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:3343-29136).  
   Note: QDM Attribute: Facility Locations
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-11950) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-11951).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-11952).
9. This template *SHALL* be contained by an Encounter Order Act (V2) (CONF:3343-28668).

Figure 91: Encounter Order (V4) Example

<!-- Must be contained in the Encounter Order Act (V2) template to represent the Encounter, Order QDM data type -->

<encounter classCode="ENC" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>

<!-- Encounter Order (V4) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.22" extension="2017-08-01"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>

<code code="185349003" displayName="encounter for check-up (procedure)"

codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

<text>Encounter for check-up (procedure)</text>

<statusCode code="active"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704281130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

...

</encounter>

Encounter Recommended (V4)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 151: Encounter Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Recommended Act (V2)](#E_Encounter_Recommended_Act_V2) (required) | [Facility Location (V2)](#SE_Facility_Location_V2) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template, along with the Encounter Recommended Act (V2) template, represents the QDM datatype: Encounter, Recommended. This template must be contained in an Encounter Recommended Act (V2) template.  
The Encounter Recommended template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended template allows Encounter Recommended to be negated.  
This datatype describes a recommendation for an encounter. This clinical statement describes the recommended interaction between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM Attribute: attributes: Start Datetime and Stop Datetime are represented by author/time (a single point in time) and Author dateTime corresponds to when the recommendation was signedauthored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.  
QDM Attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.  
QDM Attribute: Author dateTime corresponds to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.  
QDM Attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.

Table 152: Encounter Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27549](#C_3343-27549) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [3343-11911](#C_3343-11911) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [3343-11912](#C_3343-11912) |  |
| @root | 1..1 | SHALL |  | [3343-11913](#C_3343-11913) | 2.16.840.1.113883.10.20.24.3.24 |
| @extension | 1..1 | SHALL |  | [3343-27066](#C_3343-27066) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-11915](#C_3343-11915) |  |
| author | 1..1 | SHALL |  | [3343-27347](#C_3343-27347) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [3343-29137](#C_3343-29137) | [Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01](#SE_Facility_Location_V2) |
| entryRelationship | 0..1 | MAY |  | [3343-11929](#C_3343-11929) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11930](#C_3343-11930) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27065](#C_3343-27065) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Encounter (V2)](#E_Planned_Encounter_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27549).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11911).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-11912) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.24" (CONF:3343-11913).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27066).
5. SHALL contain exactly one [1..1] code (CONF:3343-11915).
6. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27347).  
   Note: QDM Attribute: Author dateTime - the time the recommendation is authored (i.e., provided to the patient)
7. MAY contain zero or one [0..1] [Facility Location (V2)](#SE_Facility_Location_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:3343-29137).  
   Note: QDM Attribute: Facility Locations
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-11929) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-11930).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27065).
9. This template *SHALL* be contained by an Encounter Recommended Act (V2) (CONF:3343-28813).

Figure 92: Encounter Recommended (V4) Example

<!-- Must be contained in the Encounter Recommended Act (V2) to represent Encounter, Recommended QDM data type -->

<encounter classCode="ENC" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>

<!-- Encounter Recommended (V4) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.24" extension="2017-08-01"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>

<code code="185349003" displayName="encounter for check-up (procedure)" codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>

<text>Encounter for check-up (procedure)</text>

<statusCode code="active"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201504081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

...

</encounter>

Planned Immunization Activity

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.120 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 153: Planned Immunization Activity Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Indication (V2)](#Indication_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (required)  [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (optional) |

This template represents planned immunizations. Planned Immunization Activity is very similar to Planned Medication Activity with some key differences, for example, the drug code system is constrained to CVX codes.  
The priority of the immunization activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the immunization activity is intended to take place and authorTime indicates when the documentation of the plan occurred.

Table 154: Planned Immunization Activity Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-32091](#C_1098-32091) | SBADM |
| @moodCode | 1..1 | SHALL |  | [1098-32097](#C_1098-32097) | urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply)) |
| templateId | 1..1 | SHALL |  | [1098-32098](#C_1098-32098) |  |
| @root | 1..1 | SHALL |  | [1098-32099](#C_1098-32099) | 2.16.840.1.113883.10.20.22.4.120 |
| id | 1..\* | SHALL |  | [1098-32100](#C_1098-32100) |  |
| statusCode | 1..1 | SHALL |  | [1098-32101](#C_1098-32101) |  |
| @code | 1..1 | SHALL |  | [1098-32102](#C_1098-32102) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 1..1 | SHALL |  | [1098-32103](#C_1098-32103) |  |
| repeatNumber | 0..1 | MAY |  | [1098-32126](#C_1098-32126) |  |
| routeCode | 0..1 | MAY |  | [1098-32127](#C_1098-32127) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 (SPL Drug Route of Administration Terminology) |
| translation | 0..\* | SHOULD |  | [1098-32951](#C_1098-32951) | urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route) |
| approachSiteCode | 0..\* | MAY |  | [1098-32128](#C_1098-32128) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| doseQuantity | 0..1 | MAY |  | [1098-32129](#C_1098-32129) |  |
| @unit | 0..1 | SHOULD |  | [1098-32130](#C_1098-32130) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| consumable | 1..1 | SHALL |  | [1098-32131](#C_1098-32131) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-32132](#C_1098-32132) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| performer | 0..\* | MAY |  | [1098-32104](#C_1098-32104) |  |
| author | 0..\* | MAY |  | [1098-32105](#C_1098-32105) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-32108](#C_1098-32108) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32109](#C_1098-32109) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-32110](#C_1098-32110) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-32114](#C_1098-32114) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32115](#C_1098-32115) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-32116](#C_1098-32116) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32117](#C_1098-32117) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32118](#C_1098-32118) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| act | 1..1 | SHALL |  | [1098-32119](#C_1098-32119) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| precondition | 0..\* | MAY |  | [1098-32123](#C_1098-32123) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32124](#C_1098-32124) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN |
| criterion | 1..1 | SHALL |  | [1098-32125](#C_1098-32125) | [Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09](#Precondition_for_Substance_Administrati) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CONF:1098-32091).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) urn:oid:2.16.840.1.113883.11.20.9.24 STATIC 2014-09-01 (CONF:1098-32097).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-32098) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.120" (CONF:1098-32099).
4. SHALL contain at least one [1..\*] id (CONF:1098-32100).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-32101).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32102).

The effectiveTime in a planned immunization activity represents the time that the immunization activity should occur.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-32103).

In a Planned Immunization Activity, repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-32126).
2. MAY contain zero or one [0..1] routeCode, which SHALL be selected from ValueSet SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:1098-32127).
   1. The routeCode, if present, SHOULD contain zero or more [0..\*] translation, which SHALL be selected from ValueSet Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12 DYNAMIC (CONF:1098-32951).
3. MAY contain zero or more [0..\*] approachSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-32128).
4. MAY contain zero or one [0..1] doseQuantity (CONF:1098-32129).
   1. The doseQuantity, if present, SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-32130).
5. SHALL contain exactly one [1..1] consumable (CONF:1098-32131).
   1. This consumable SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32132).

The clinician who is expected to perform the planned immunization activity could be identified using substanceAdministration/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-32104).

The author in a planned immunization activity represents the clinician who is requesting or planning the immunization activity.

1. MAY contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32105).

The following entryRelationship represents the priority that a patient or a provider places on the immunization activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32108) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32109).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-32110).

The following entryRelationship represents the indication for the immunization activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32114) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32115).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32116).

The following entryRelationship captures any instructions associated with the planned immunization activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32117) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32118).
   2. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32119).
2. MAY contain zero or more [0..\*] precondition (CONF:1098-32123) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PRCN" Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32124).
   2. SHALL contain exactly one [1..1] [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32125).

Figure 93: Planned Immunization Activity

<substanceAdministration classCode="SBADM" moodCode="INT">

<!-- Planned Immunization Activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.120" />

<id root="81505d5e-2305-42b3-9273-f579d622000d" />

<statusCode code="active" />

<effectiveTime xsi:type="IVL\_TS" value="20131115" />

<repeatNumber value="1" />

<routeCode code="IM" codeSystem="2.16.840.1.113883.5.112" codeSystemName="RouteOfAdministration" displayName="Intramuscular injection" />

<consumable>

<!-- Immunization Medication Information (V2) -->

</consumable>

<performer>

...

</performer>

<author>

<!-- Author Participation -->

</author>

<entryRelationship typeCode="REFR">

<!-- Patient Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Provider Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Indication (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<!-- Instruction (V2) -->

...

</entryRelationship>

<precondition typeCode="PRCN">

<!-- Precondition for Substance Administration (V2) -->

...

</precondition>

</substanceAdministration>

Immunization Order (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 155: Immunization Order (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatypes: Immunization, Order.  
This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide immunization to a patient.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed.  
QDM Attribute: Active dateTime is the date and time at which an order becomes active (intended to take place), this is represented by effectiveTime. In most cases, this is the same as the author (signed) dateTime, but with advance orders it may be after the signed dateTime. This is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V2) is not explicitly contained in every template, it is available for use in any template.

Table 156: Immunization Order (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28645](#C_3343-28645) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [3343-28644](#C_3343-28644) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28647](#C_3343-28647) |  |
| templateId | 1..1 | SHALL |  | [3343-28627](#C_3343-28627) |  |
| @root | 1..1 | SHALL |  | [3343-28634](#C_3343-28634) | 2.16.840.1.113883.10.20.24.3.143 |
| @extension | 1..1 | SHALL |  | [3343-28923](#C_3343-28923) | 2017-08-01 |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [3343-28924](#C_3343-28924) |  |
| low | 1..1 | SHALL |  | [3343-28925](#C_3343-28925) |  |
| routeCode | 0..1 | MAY |  | [3343-28628](#C_3343-28628) |  |
| author | 1..1 | SHALL |  | [3343-28646](#C_3343-28646) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-28626](#C_3343-28626) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28641](#C_3343-28641) | RSON |
| observation | 1..1 | SHALL |  | [3343-28633](#C_3343-28633) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Immunization Activity](#E_Planned_Immunization_Activity) template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120).
2. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28645).
3. SHALL contain exactly one [1..1] @moodCode="RQO" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28644).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28647).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-28627) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.143" (CONF:3343-28634).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28923).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28924).  
   Note: QDM Attribute: Active dateTime - the date and time at which an order becomes active
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-28925).
7. MAY contain zero or one [0..1] routeCode (CONF:3343-28628).  
   Note: QDM Attribute: Route
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28646).  
   Note: QDM Attribute: Author dateTime – the time the order was signed
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28626) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CONF:3343-28641).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-28633).

Figure 94: Immunization Order (V2) Example

<substanceAdministration classCode="SBADM" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Immunization Activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.120"/>

<!-- Immunization Order (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.143" extension="2017-08-01"/>

<id root="9a5f4d94-ccad-4d57-80ea-27737545c7bb"/>

<statusCode code="active"/>

<!-- Active dateTime: the date and time at which an order becomes active (intended to take place)-->

<effectiveTime xsi:type="IVL\_TS">

<low value="20170708"/>

</effectiveTime>

<!-- QDM Attribute: Route -->

<routeCode code="IM" codeSystem="2.16.840.1.113883.5.112" codeSystemName="RouteOfAdministration" displayName="Intramuscular injection"/>

<!-- QDM Attribute: Dose -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2.1 Immunization Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX"/>

<lotNumberText>1</lotNumberText>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201504081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</substanceAdministration>

Planned Medication Activity (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09 (open)]

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Table 157: Planned Medication Activity (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Indication (V2)](#Indication_V2) (optional)  [Medication Information (V2)](#E_Medication_Information_V2) (required)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (optional) |

This template represents planned medication activities. The priority of the medication activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the medication activity is intended to take place. The authorTime indicates when the documentation of the plan occurred.

Table 158: Planned Medication Activity (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8572](#C_1098-8572) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [1098-8573](#C_1098-8573) | urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply)) |
| templateId | 1..1 | SHALL |  | [1098-30465](#C_1098-30465) |  |
| @root | 1..1 | SHALL |  | [1098-30466](#C_1098-30466) | 2.16.840.1.113883.10.20.22.4.42 |
| @extension | 1..1 | SHALL |  | [1098-32557](#C_1098-32557) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8575](#C_1098-8575) |  |
| statusCode | 1..1 | SHALL |  | [1098-32087](#C_1098-32087) |  |
| @code | 1..1 | SHALL |  | [1098-32088](#C_1098-32088) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [1098-30468](#C_1098-30468) |  |
| @value | 0..1 | SHOULD |  | [1098-32944](#C_1098-32944) |  |
| low | 0..1 | SHOULD |  | [1098-32948](#C_1098-32948) |  |
| high | 0..1 | MAY |  | [1098-32949](#C_1098-32949) |  |
| effectiveTime | 1..1 | SHOULD |  | [1098-32943](#C_1098-32943) |  |
| @operator | 1..1 | SHALL |  | [1098-32945](#C_1098-32945) | A |
| repeatNumber | 0..1 | MAY |  | [1098-32066](#C_1098-32066) |  |
| routeCode | 0..1 | MAY |  | [1098-32067](#C_1098-32067) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 (SPL Drug Route of Administration Terminology) |
| translation | 0..\* | SHOULD |  | [1098-32952](#C_1098-32952) | urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route) |
| approachSiteCode | 0..\* | MAY |  | [1098-32078](#C_1098-32078) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| doseQuantity | 0..1 | MAY |  | [1098-32068](#C_1098-32068) |  |
| @unit | 0..1 | SHOULD |  | [1098-32133](#C_1098-32133) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| rateQuantity | 0..1 | MAY |  | [1098-32079](#C_1098-32079) |  |
| @unit | 0..1 | SHOULD |  | [1098-32134](#C_1098-32134) | urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive) |
| maxDoseQuantity | 0..1 | MAY |  | [1098-32080](#C_1098-32080) |  |
| administrationUnitCode | 0..1 | MAY |  | [1098-32081](#C_1098-32081) | urn:oid:2.16.840.1.113762.1.4.1021.30 (AdministrationUnitDoseForm) |
| consumable | 1..1 | SHALL |  | [1098-32082](#C_1098-32082) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-32083](#C_1098-32083) | [Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09](#E_Medication_Information_V2) |
| performer | 0..\* | MAY |  | [1098-30470](#C_1098-30470) |  |
| author | 0..1 | SHOULD |  | [1098-32046](#C_1098-32046) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-31104](#C_1098-31104) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31105](#C_1098-31105) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31106](#C_1098-31106) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-32069](#C_1098-32069) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32070](#C_1098-32070) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-32071](#C_1098-32071) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32072](#C_1098-32072) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32073](#C_1098-32073) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| act | 1..1 | SHALL |  | [1098-32074](#C_1098-32074) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| precondition | 0..\* | MAY |  | [1098-32084](#C_1098-32084) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32085](#C_1098-32085) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN |
| criterion | 1..1 | SHALL |  | [1098-32086](#C_1098-32086) | [Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09](#Precondition_for_Substance_Administrati) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8572).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) urn:oid:2.16.840.1.113883.11.20.9.24 STATIC 2011-09-30 (CONF:1098-8573).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30465) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.42" (CONF:1098-30466).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32557).
4. SHALL contain at least one [1..\*] id (CONF:1098-8575).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-32087).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32088).

The effectiveTime in a planned medication activity represents the time that the medication activity should occur.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-30468) such that it  
   Note: This effectiveTime represents either the medication duration (i.e., the time the medication should be started and stopped) or the timestamp when the single-administration should occur.
   1. SHOULD contain zero or one [0..1] @value (CONF:1098-32944).  
      Note: indicates a single-administration timestamp
   2. SHOULD contain zero or one [0..1] low (CONF:1098-32948).  
      Note: indicates when medication started
   3. MAY contain zero or one [0..1] high (CONF:1098-32949).  
      Note: indicates when medication stopped
   4. This effectiveTime SHALL contain either a low or a @value but not both (CONF:1098-32947).

The effectiveTime in a planned medication activity represents the time that the medication activity should occur.

1. SHOULD contain exactly one [1..1] effectiveTime (CONF:1098-32943) such that it
   1. SHALL contain exactly one [1..1] @operator="A" (CONF:1098-32945).
   2. SHALL contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:1098-32946).

In a Planned Medication Activity, repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-32066).
2. MAY contain zero or one [0..1] routeCode, which SHALL be selected from ValueSet SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:1098-32067).
   1. The routeCode, if present, SHOULD contain zero or more [0..\*] translation, which SHALL be selected from ValueSet Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12 DYNAMIC (CONF:1098-32952).
3. MAY contain zero or more [0..\*] approachSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-32078).
4. MAY contain zero or one [0..1] doseQuantity (CONF:1098-32068).
   1. The doseQuantity, if present, SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-32133).
5. MAY contain zero or one [0..1] rateQuantity (CONF:1098-32079).
   1. The rateQuantity, if present, SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-32134).
6. MAY contain zero or one [0..1] maxDoseQuantity (CONF:1098-32080).
7. MAY contain zero or one [0..1] administrationUnitCode, which SHALL be selected from ValueSet AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30 DYNAMIC (CONF:1098-32081).
8. SHALL contain exactly one [1..1] consumable (CONF:1098-32082).
   1. This consumable SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32083).

The clinician who is expected to perform the medication activity could be identified using substanceAdministration/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-30470).

The author in a planned medication activity represents the clinician who is requesting or planning the medication activity.

1. SHOULD contain zero or one [0..1] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32046).

The following entryRelationship represents the priority that a patient or a provider places on the planned medication activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31104) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31105).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31106).

The following entryRelationship represents the indication for the planned medication activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32069) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32070).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32071).

The following entryRelationship captures any instructions associated with the planned medication activity.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32072) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32073).
   2. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32074).
2. MAY contain zero or more [0..\*] precondition (CONF:1098-32084).
   1. The precondition, if present, SHALL contain exactly one [1..1] @typeCode="PRCN" Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32085).
   2. The precondition, if present, SHALL contain exactly one [1..1] [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32086).

Figure 95: Planned Medication Activity (V2) Example

<substanceAdministration moodCode="INT" classCode="SBADM">

<templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09" />

<!-- Planned Medication Activity (V2)-->

<id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />

<text>Heparin 0.25 ml Prefilled Syringe</text>

<statusCode code="active" />

<!-- The effectiveTime in a planned medication activity

represents the time that the medication activity should occur. -->

<effectiveTime value="20130905" />

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Medication Information (V2) -->

...

</manufacturedProduct>

</consumable>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Priority Preference-->

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Priority Preference-->

...

</observation>

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Indication (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<!-- Instruction (V2) -->

...

</entryRelationship>

</substanceAdministration>

Medication Order (V5)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 159: Medication Order (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Medication Supply Request (V2)](#E_Medication_Supply_Request_V2) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required)  [Days Supplied](#E_Days_Supplied_) (optional) |

This template represents the QDM datatypes: Medication, Order and Substance, Order.  
This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide medication to a patient. The request is in the form of prescriptions or other medication orders with detail adequate for correct filling and administration. This template is broader than a pharmacy supply order and may include a supply order.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed.

QDM Attribute: Relevant Period. Relevant Period startTime is when the first administration of the medication is expected. The first administration may be expected at the time of the order or at a specified future date (i.e., the active time for the order); such information should be identified in the medication order. If the startTime is not specified in the order, the startTime defaults to the Author dateTime (the time the order is signed). The stopTime is when the medication supply provided by the medication order is expected to be completed, including all fulfillments covered by the number of refills.

QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 160: Medication Order (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-27377](#C_4388-27377) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [4388-12639](#C_4388-12639) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [4388-28084](#C_4388-28084) |  |
| templateId | 1..1 | SHALL |  | [4388-12585](#C_4388-12585) |  |
| @root | 1..1 | SHALL |  | [4388-12586](#C_4388-12586) | 2.16.840.1.113883.10.20.24.3.47 |
| @extension | 1..1 | SHALL |  | [4388-27089](#C_4388-27089) | 2018-10-01 |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [4388-27740](#C_4388-27740) |  |
| low | 1..1 | SHALL |  | [4388-27742](#C_4388-27742) |  |
| high | 1..1 | SHALL |  | [4388-29225](#C_4388-29225) |  |
| effectiveTime | 0..1 | MAY |  | [4388-27741](#C_4388-27741) |  |
| @operator | 1..1 | SHALL |  | [4388-28914](#C_4388-28914) | A |
| author | 1..1 | SHALL |  | [4388-27745](#C_4388-27745) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [4388-29226](#C_4388-29226) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29232](#C_4388-29232) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4388-29227](#C_4388-29227) |  |
| code | 1..1 | SHALL |  | [4388-29233](#C_4388-29233) |  |
| entryRelationship | 0..1 | MAY |  | [4388-28008](#C_4388-28008) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28009](#C_4388-28009) | RSON |
| observation | 1..1 | SHALL |  | [4388-28010](#C_4388-28010) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..1 | MAY |  | [4388-29228](#C_4388-29228) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29234](#C_4388-29234) | REFR |
| supply | 1..1 | SHALL |  | [4388-29229](#C_4388-29229) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01](#E_Days_Supplied_) |
| entryRelationship | 0..1 | MAY |  | [4388-29230](#C_4388-29230) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29235](#C_4388-29235) | COMP |
| supply | 1..1 | SHALL |  | [4388-29231](#C_4388-29231) | [Medication Supply Request (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05](#E_Medication_Supply_Request_V2) |

1. Conforms to [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-27377).
3. SHALL contain exactly one [1..1] @moodCode="RQO" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-12639).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-28084).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-12585) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.47" (CONF:4388-12586).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-27089).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4388-27740) such that it  
   Note: QDM Attribute: Relevant Period
   1. SHALL contain exactly one [1..1] low (CONF:4388-27742).  
      Note: startTime = when the first administration of the medication is expected. The first administration may be expected at the time of the order or at a specified future date (i.e., the active time for the order); such information should be identified in the medication order. If the startTime is not specified in the order, the startTime defaults to the Author dateTime (the time the order is signed).
   2. SHALL contain exactly one [1..1] high (CONF:4388-29225).  
      Note: stopTime = when the medication supply provided by the medication order is expected to be completed, including all fulfillments covered by the number of refills.
7. MAY contain zero or one [0..1] effectiveTime (CONF:4388-27741) such that it  
   Note: QDM Attribute: Frequency - e.g., administration times per day
   1. SHALL contain exactly one [1..1] @operator="A" (CONF:4388-28914).
   2. *SHALL* contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:4388-28915).
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-27745).  
   Note: QDM Attribute: Author dateTime – the time the order was signed; QDM Attribute: prescriberId is represented using author/assignedAuthor/id
9. MAY contain zero or one [0..1] participant (CONF:4388-29226) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4388-29232).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4388-29227).
      1. This participantRole SHALL contain exactly one [1..1] code (CONF:4388-29233).  
         Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered.
10. MAY contain zero or one [0..1] entryRelationship (CONF:4388-28008) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CONF:4388-28009).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-28010).
11. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29228) such that it  
    Note: QDM Attribute: Days Supplied
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CONF:4388-29234).
    2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4388-29229).
12. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29230) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Component of  (CONF:4388-29235).
    2. SHALL contain exactly one [1..1] [Medication Supply Request (V2)](#E_Medication_Supply_Request_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05) (CONF:4388-29231).

Figure 96: Medication Order (V5) Example

<substanceAdministration classCode="SBADM" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Medication Activity (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09"/>

<!-- Medication Order (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.47" extension="2018-10-01"/>

<id root="9a5f4d94-ccad-4d57-80ea-27737545c7bb"/>

<text>Medication active: 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN

wheezing</text>

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS>

<low value="201804081130"/>

<high value="201804081130"/>

</effectiveTime>

<!-- QDM Attribute: Frequency -->

<effectiveTime xsi:type="PIVL\_TS" institutionSpecified="true" operator="A">

<period value="6" unit="h"/>

</effectiveTime>

<!-- QDM Attribute: Refill -->

<repeatNumber value="2"/>

<!-- QDM Attribute: Route -->

<routeCode code="C38216" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI Thesaurus" displayName="RESPIRATORY (INHALATION)"/>

<!-- QDM Attribute: Dose -->

<doseQuantity value="1"/>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2.1 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>

<manufacturedMaterial>

<code code="329498" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</substanceAdministration>

Substance Recommended (V4)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 161: Substance Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Substance, Recommended.  
This Substance Recommended template represents a material or consumable that is not considered a clinical drug, such as infant formula, breast milk, other enteral feeding, or a non-prescription lotion or ointment.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.  
QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 162: Substance Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27495](#C_3343-27495) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [3343-13784](#C_3343-13784) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28112](#C_3343-28112) |  |
| templateId | 1..1 | SHALL |  | [3343-13785](#C_3343-13785) |  |
| @root | 1..1 | SHALL |  | [3343-13786](#C_3343-13786) | 2.16.840.1.113883.10.20.24.3.75 |
| @extension | 1..1 | SHALL |  | [3343-27152](#C_3343-27152) | 2017-08-01 |
| effectiveTime | 0..1 | MAY |  | [3343-28942](#C_3343-28942) |  |
| @operator | 1..1 | SHALL |  | [3343-29145](#C_3343-29145) | A |
| consumable | 1..1 | SHALL |  | [3343-27988](#C_3343-27988) |  |
| manufacturedProduct | 1..1 | SHALL |  | [3343-27989](#C_3343-27989) |  |
| manufacturedMaterial | 1..1 | SHALL |  | [3343-27990](#C_3343-27990) |  |
| code | 1..1 | SHALL |  | [3343-27991](#C_3343-27991) |  |
| author | 1..1 | SHALL |  | [3343-27720](#C_3343-27720) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-13867](#C_3343-13867) |  |
| @typeCode | 1..1 | SHALL |  | [3343-13868](#C_3343-13868) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-13869](#C_3343-13869) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27495).
3. SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13784).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28112).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13785) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.75" (CONF:3343-13786).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27152).
6. MAY contain zero or one [0..1] effectiveTime (CONF:3343-28942) such that it  
   Note: QDM Attribute: Frequency - e.g., administration times per day
   1. SHALL contain exactly one [1..1] @operator="A" (CONF:3343-29145).
   2. *SHALL* contain exactly one 1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:3343-28944).
7. SHALL contain exactly one [1..1] consumable (CONF:3343-27988).
   1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:3343-27989).
      1. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:3343-27990).
         1. This manufacturedMaterial SHALL contain exactly one [1..1] code (CONF:3343-27991).  
            Note: QDM Attribute: Code
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27720).  
   Note: QDM Attribute: Author dateTime - the time the recommendation was authored
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-13867) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-13868).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-13869).

Figure 97: Substance Recommended (V4) Example

<substanceAdministration classCode="SBADM" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Medication Activity (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09"/>

<!-- Substance Recommended (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.75" extension="2017-08-01"/>

<id root="df154906-9aaa-4651-a244-412cef74b8d5"/>

<text>Substance Recommended: Dietary fiber</text>

<statusCode code="active"/>

<effectiveTime xsi:type="PIVL\_TS" operator="A">

<period value="8" unit="h"/>

</effectiveTime>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2.1 Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>

<id root="39e2bc57-295f-4c81-82dd-38ede1463830"/>

<manufacturedMaterial>

<code code="116272000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED" displayName="Dietary Fiber" />

</manufacturedMaterial>

<manufacturerOrganization>

<name>Medication Factory Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

</consumable>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

...

</observation>

</entryRelationship>

</substanceAdministration>

Planned Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 163: Planned Observation (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Indication (V2)](#Indication_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Planned Coverage](#E_Planned_Coverage) (optional) |

This template represents planned observations that result in new information about the patient which cannot be classified as a procedure according to the HL7 RIM, i.e., procedures alter the patient's body. Examples of these observations are laboratory tests, diagnostic imaging tests, EEGs, and EKGs.

The importance of the planned observation to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the observation is intended to take place and authorTime indicates when the documentation of the plan occurred.  
The Planned Observation template may also indicate the potential insurance coverage for the observation.

Table 164: Planned Observation (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8581](#C_1098-8581) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-8582](#C_1098-8582) | urn:oid:2.16.840.1.113883.11.20.9.25 (Planned moodCode (Observation)) |
| templateId | 1..1 | SHALL |  | [1098-30451](#C_1098-30451) |  |
| @root | 1..1 | SHALL |  | [1098-30452](#C_1098-30452) | 2.16.840.1.113883.10.20.22.4.44 |
| @extension | 1..1 | SHALL |  | [1098-32555](#C_1098-32555) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8584](#C_1098-8584) |  |
| code | 1..1 | SHALL |  | [1098-31030](#C_1098-31030) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [1098-30453](#C_1098-30453) |  |
| @code | 1..1 | SHALL |  | [1098-32032](#C_1098-32032) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-30454](#C_1098-30454) |  |
| value | 0..1 | MAY |  | [1098-31031](#C_1098-31031) |  |
| methodCode | 0..1 | MAY |  | [1098-32043](#C_1098-32043) |  |
| targetSiteCode | 0..\* | SHOULD |  | [1098-32044](#C_1098-32044) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| performer | 0..\* | MAY |  | [1098-30456](#C_1098-30456) |  |
| author | 0..\* | SHOULD |  | [1098-32033](#C_1098-32033) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-31073](#C_1098-31073) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31074](#C_1098-31074) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31075](#C_1098-31075) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-32034](#C_1098-32034) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32035](#C_1098-32035) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-32036](#C_1098-32036) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32037](#C_1098-32037) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32038](#C_1098-32038) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| act | 1..1 | SHALL |  | [1098-32039](#C_1098-32039) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32040](#C_1098-32040) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32041](#C_1098-32041) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [1098-32042](#C_1098-32042) | [Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129](#E_Planned_Coverage) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8581).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (Observation) urn:oid:2.16.840.1.113883.11.20.9.25 STATIC 2011-09-30 (CONF:1098-8582).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30451) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.44" (CONF:1098-30452).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32555).
4. SHALL contain at least one [1..\*] id (CONF:1098-8584).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31030).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-30453).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32032).

The effectiveTime in a planned observation represents the time that the observation should occur.

1. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-30454).
2. MAY contain zero or one [0..1] value (CONF:1098-31031).

In a planned observation the provider may suggest that an observation should be performed using a particular method.

1. MAY contain zero or one [0..1] methodCode (CONF:1098-32043).

The targetSiteCode is used to identify the part of the body of concern for the planned observation.

1. SHOULD contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-32044).

The clinician who is expected to perform the observation could be identified using procedure/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-30456).

The author in a planned observation represents the clinician who is requesting or planning the observation.

1. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32033).

The following entryRelationship represents the priority that a patient or a provider places on the observation.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31073) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31074).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31075).

The following entryRelationship represents the indication for the observation.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32034) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32035).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32036).

The following entryRelationship captures any instructions associated with the planned observation.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32037) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32038).
   2. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32039).

The following entryRelationship represents the insurance coverage the patient may have for the observation.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32040) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32041).
   2. SHALL contain exactly one [1..1] [Planned Coverage](#E_Planned_Coverage) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32042).

Figure 98: Planned Observation (V2) Example

<observation classCode="OBS" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.44"

extension="2014-06-09" />

<id root="b52bee94-c34b-4e2c-8c15-5ad9d6def205" />

<code code="59408-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />

<statusCode code="active" />

<effectiveTime value="20130903" />

<author typeCode="AUT">

<!-- Author Participation -->

</author>

<entryRelationship typeCode="REFR">

<!-- Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Indication (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<!-- Instruction (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Planned Coverage -->

...

</entryRelationship>

</observation>

Assessment Order

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 165: Assessment Order Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Assessment, Order.  
Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions.  
Data elements that meet these criteria using the Assessment, Order data type should document an order by a clinician or appropriately licensed care provider to a patient or an appropriate provider or organization to perform an assessment indicated by the Assessment category and its corresponding value set.  
Timing: The time the recommendation is authored (i.e., provided to the patient).  
QDM attribute: Author dateTime is represented by author/time and correspond to when the order was authored (i.e., provided to the patient). Orders address the time that the order is authored, a single point in time. Some assessment orders will be addressed as components of a care plan which incorporates the period (or timing) when the order is to be carried out.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 166: Assessment Order Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-29249](#C_4388-29249) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4388-29248](#C_4388-29248) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [4388-29250](#C_4388-29250) |  |
| templateId | 1..1 | SHALL |  | [4388-29241](#C_4388-29241) |  |
| @root | 1..1 | SHALL |  | [4388-29244](#C_4388-29244) | 2.16.840.1.113883.10.20.24.3.158 |
| @extension | 1..1 | SHALL |  | [4388-29245](#C_4388-29245) | 2018-10-01 |
| code | 1..1 | SHALL |  | [4388-29246](#C_4388-29246) |  |
| author | 1..1 | SHALL |  | [4388-29242](#C_4388-29242) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [4388-29239](#C_4388-29239) |  |
| @typeCode | 1..1 | SHALL |  | [4388-29243](#C_4388-29243) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-29240](#C_4388-29240) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-29249).
3. SHALL contain exactly one [1..1] @moodCode="RQO" request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-29248).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-29250).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-29241) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.158" (CONF:4388-29244).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-29245).
6. SHALL contain exactly one [1..1] code (CONF:4388-29246).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-29242).  
   Note: QDM Attribute: Author dateTime - the time the order is authored (i.e., provided to the patient)
8. MAY contain zero or one [0..1] entryRelationship (CONF:4388-29239) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-29243).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-29240).

Figure 99: Assessment Order Example

<observation classCode="OBS" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09" />

<!-- Assessment Order -->

<templateId root="2.16.840.1.113883.10.20.24.3.158" extension="2018-10-01"/>

<id root="f07d6d5e-cbb3-4306-b572-5d79069ec165" />

<code code="72195-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical limitation score [KCCQ]" />

<text>Assessment Order: Physical limitation score [KCCQ]</text>

<statusCode code="active" />

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201804081130" />

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

Assessment Recommended (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 167: Assessment Recommended (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Assessment, Recommended.  
Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM attribute: Author dateTime is represented by author/time and correspond to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 168: Assessment Recommended (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28682](#C_3343-28682) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28681](#C_3343-28681) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28683](#C_3343-28683) |  |
| templateId | 1..1 | SHALL |  | [3343-28673](#C_3343-28673) |  |
| @root | 1..1 | SHALL |  | [3343-28676](#C_3343-28676) | 2.16.840.1.113883.10.20.24.3.145 |
| @extension | 1..1 | SHALL |  | [3343-28702](#C_3343-28702) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28674](#C_3343-28674) |  |
| methodCode | 0..1 | MAY |  | [3343-28699](#C_3343-28699) |  |
| author | 1..1 | SHALL |  | [3343-28680](#C_3343-28680) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-28672](#C_3343-28672) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28678](#C_3343-28678) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-28675](#C_3343-28675) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28682).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28681).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28683).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-28673) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.145" (CONF:3343-28676).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28702).
6. SHALL contain exactly one [1..1] code (CONF:3343-28674).  
   Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] methodCode (CONF:3343-28699).  
   Note: QDM Attribute: Method
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28680).  
   Note: QDM Attribute: Author dateTime - the time the recommendation is authored (i.e., provided to the patient)
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28672) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28678).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-28675).

Figure 100: Assessment Recommended (V2) Example

<observation classCode="OBS" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09" />

<!-- Assessment Recommended (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.145" extension="2017-08-01"/>

<id root="41c3513a-a3eb-468d-b537-9b9bebe11807" />

<code code="72195-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical limitation score [KCCQ]" />

<text>Assessment Recommended: Physical limitation score [KCCQ]</text>

<statusCode code="active" />

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130" />

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01" />

...

</observation>

</entryRelationship>

</observation>

Diagnostic Study Order (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01 (open)]

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Table 169: Diagnostic Study Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Diagnostic Study, Order.  
This datatype represents that a diagnostic study has been ordered. Diagnostic studies are those that are not performed in the clinical laboratory. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 170: Diagnostic Study Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27408](#C_3343-27408) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-13411](#C_3343-13411) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28062](#C_3343-28062) |  |
| templateId | 1..1 | SHALL |  | [3343-13412](#C_3343-13412) |  |
| @root | 1..1 | SHALL |  | [3343-13413](#C_3343-13413) | 2.16.840.1.113883.10.20.24.3.17 |
| @extension | 1..1 | SHALL |  | [3343-27069](#C_3343-27069) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27615](#C_3343-27615) |  |
| author | 1..1 | SHALL |  | [3343-27340](#C_3343-27340) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-13430](#C_3343-13430) |  |
| @typeCode | 1..1 | SHALL |  | [3343-13431](#C_3343-13431) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-13432](#C_3343-13432) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27408).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13411).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28062).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13412) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.17" (CONF:3343-13413).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27069).
6. SHALL contain exactly one [1..1] code (CONF:3343-27615).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27340).  
   Note: QDM Attribute: Author dateTime - the time the order is signed
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-13430) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-13431).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-13432).

Figure 101: Diagnostic Study Order (V4) Example

<observation classCode="OBS" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Diagnostic Study Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.17" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<code code="24605-8" codeSystem="2.16.840.1.113883.6.1"

displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>

<text>Diagnostic Study, Order: Breast Mammogram Diagnostic</text>

<statusCode code="active"/>

<value xsi:type="CD" nullFlavor="NA"/>

<!-- QDM Attribute: Method -->

<methodCode code="24605-8" codeSystem="2.16.840.1.113883.6.1"

displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>

<!-- author/time indicates the time the diagnostic order was signed -->

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201706081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>

</observation>

</entryRelationship>

</observation>

Diagnostic Study Recommended (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01 (open)]

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Table 171: Diagnostic Study Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Author](#U_Author) (required) |

This template represents the QDM datatype: Diagnostic Study, Recommended.  
Diagnostic studies are those that are not performed in the clinical laboratory. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM attribute: Author dateTime is represented by author/time and correspond to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

Table 172: Diagnostic Study Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27406](#C_3343-27406) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-13392](#C_3343-13392) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28064](#C_3343-28064) |  |
| templateId | 1..1 | SHALL |  | [3343-13393](#C_3343-13393) |  |
| @root | 1..1 | SHALL |  | [3343-13394](#C_3343-13394) | 2.16.840.1.113883.10.20.24.3.19 |
| @extension | 1..1 | SHALL |  | [3343-27070](#C_3343-27070) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27619](#C_3343-27619) |  |
| author | 1..1 | SHALL |  | [3343-13400](#C_3343-13400) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27406).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13392).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28064).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13393) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.19" (CONF:3343-13394).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27070).
6. SHALL contain exactly one [1..1] code (CONF:3343-27619).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-13400).  
   Note: Autor dateTime - the time the diagnostic recommendation was authored (i.e., provided to the patient)

Figure 102: Diagnostic Study Recommended (V4) Example

<observation classCode="OBS" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Diagnostic Study Recommended (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.19" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<code code="24605-8" codeSystem="2.16.840.1.113883.6.1"

displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>

<text>Diagnostic Study, Recommended: Breast Mammogram Diagnostic</text>

<statusCode code="active"/>

<value xsi:type="CD" nullFlavor="NA"/>

<!-- QDM Attribute: Method -->

<methodCode code="24605-8" codeSystem="2.16.840.1.113883.6.1"

displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201706181130"/>

<assignedAuthor>

<id nullFlavor="NA/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>

</observation>

</entryRelationship>

</observation>

Laboratory Test Order (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 173: Laboratory Test Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Laboratory Test, Order.  
This datatype represents an order for a laboratory test. A laboratory test is a medical procedure that involves testing a sample of blood, urine, or other substance from the body. Tests can help determine a diagnosis, plan treatment, check if treatment is working, or monitor the disease over time.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 174: Laboratory Test Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27417](#C_3343-27417) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-11953](#C_3343-11953) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28076](#C_3343-28076) |  |
| templateId | 1..1 | SHALL |  | [3343-11954](#C_3343-11954) |  |
| @root | 1..1 | SHALL |  | [3343-11955](#C_3343-11955) | 2.16.840.1.113883.10.20.24.3.37 |
| @extension | 1..1 | SHALL |  | [3343-27075](#C_3343-27075) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-11957](#C_3343-11957) |  |
| author | 1..1 | SHALL |  | [3343-27344](#C_3343-27344) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-11969](#C_3343-11969) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11970](#C_3343-11970) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27074](#C_3343-27074) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27417).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11953).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28076).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-11954) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.37" (CONF:3343-11955).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27075).
6. SHALL contain exactly one [1..1] code (CONF:3343-11957).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27344).  
   Note: QDM Attribute: Author dateTime – time the diagnostic order was signed
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-11969) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-11970).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27074).

Figure 103: Laboratory Test Order (V4) Example

<observation classCode="OBS" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Laboratory Test, Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.37" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<!-- Laboratory Test -->

<code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="active"/>

<!-- QDM Attribute: Method -->

<methodCode code="58410-2" displayName="Complete blood count (hemogram) panel - Blood by Automated count" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201708031130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>

</observation>

</entryRelationship>

</observation>

Laboratory Test Recommended (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 175: Laboratory Test Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Laboratory Test, Recommended.  
This datatype represents a recommendation for a laboratory test. A laboratory test is a medical procedure that involves testing a sample of blood, urine, or other substance from the body. Tests can help determine a diagnosis, plan treatment, check if treatment is working, or monitor the disease over time.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM attributes: Author dateTime corresponds to when the recommendation was signed, it is expected that the two values will be the same. The time the activity is recommended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 176: Laboratory Test Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27416](#C_3343-27416) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-11793](#C_3343-11793) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28078](#C_3343-28078) |  |
| templateId | 1..1 | SHALL |  | [3343-11794](#C_3343-11794) |  |
| @root | 1..1 | SHALL |  | [3343-11795](#C_3343-11795) | 2.16.840.1.113883.10.20.24.3.39 |
| @extension | 1..1 | SHALL |  | [3343-27077](#C_3343-27077) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27639](#C_3343-27639) |  |
| author | 1..1 | SHALL |  | [3343-27350](#C_3343-27350) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-11811](#C_3343-11811) |  |
| @typeCode | 1..1 | SHALL |  | [3343-11812](#C_3343-11812) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-11813](#C_3343-11813) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27416).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11793).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28078).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-11794) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.39" (CONF:3343-11795).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27077).
6. SHALL contain exactly one [1..1] code (CONF:3343-27639).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27350).  
   Note: QDM Attribute: Author dateTime - the time the recommendation was signed
8. MAY contain zero or one [0..1] entryRelationship (CONF:3343-11811) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-11812).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-11813).

Figure 104: Laboratory Test Recommended (V4) Example

<observation classCode="OBS" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Laboratory Test, Recommended (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.39" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b4"/>

<!-- Laboratory Test -->

<code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="active"/>

<!-- QDM Attribute: Method -->

<methodCode code="58410-2" displayName="Complete blood count (hemogram) panel - Blood by Automated count" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201703211130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

Physical Exam Order (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 177: Physical Exam Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Physical Exam, Order.  
This datatype represents a request by a physician or appropriately licensed care provider to order a physical exam for the patient.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 178: Physical Exam Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27550](#C_3343-27550) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12685](#C_3343-12685) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [3343-28092](#C_3343-28092) |  |
| templateId | 1..1 | SHALL |  | [3343-12686](#C_3343-12686) |  |
| @root | 1..1 | SHALL |  | [3343-12687](#C_3343-12687) | 2.16.840.1.113883.10.20.24.3.58 |
| @extension | 1..1 | SHALL |  | [3343-27078](#C_3343-27078) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-12689](#C_3343-12689) |  |
| @code | 1..1 | SHALL |  | [3343-13242](#C_3343-13242) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 29545-1 |
| value | 1..1 | SHALL | CD | [3343-13254](#C_3343-13254) |  |
| author | 1..1 | SHALL |  | [3343-27345](#C_3343-27345) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-12701](#C_3343-12701) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12702](#C_3343-12702) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-12703](#C_3343-12703) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27550).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12685).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28092).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-12686) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.58" (CONF:3343-12687).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27078).
6. SHALL contain exactly one [1..1] code (CONF:3343-12689).
   1. This code SHALL contain exactly one [1..1] @code="29545-1" physical examination (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-13242).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-13254).  
   Note: QDM Attribute: Code
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27345).  
   Note: QDM Attribute: Author dateTime – the time the physical exam order was signed
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12701) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12702).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-12703).

Figure 105: Physical Exam Order (V4) Example

<observation classCode="OBS" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Physical Exam Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.58" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<code code="29545-1" codeSystem="2.16.840.1.113883.6.1" displayName="physical examination" codeSystemName="LOINC"/>

<statusCode code="active"/>

<effectiveTime value="20170412"/>

<value xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"/>

<!-- QDM Attribute: Method -->

<methodCode code="8350-1" codeSystem="2.16.840.1.113883.6.1"

displayName="Body weight Measured --with clothes" codeSystemName="LOINC"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201204081130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>

</observation>

</entryRelationship>

</observation>

Physical Exam Recommended (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 179: Physical Exam Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Physical Exam, Recommended.  
This datatype represents a recommendation by a physician or appropriately licensed care provider for a physical exam to be performed on the patient.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.  
QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 180: Physical Exam Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27556](#C_3343-27556) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12665](#C_3343-12665) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [3343-28094](#C_3343-28094) |  |
| templateId | 1..1 | SHALL |  | [3343-12666](#C_3343-12666) |  |
| @root | 1..1 | SHALL |  | [3343-12667](#C_3343-12667) | 2.16.840.1.113883.10.20.24.3.60 |
| @extension | 1..1 | SHALL |  | [3343-27082](#C_3343-27082) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-12669](#C_3343-12669) |  |
| @code | 1..1 | SHALL |  | [3343-13274](#C_3343-13274) | 29545-1 |
| @codeSystem | 1..1 | SHALL |  | [3343-28132](#C_3343-28132) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | CD | [3343-13275](#C_3343-13275) |  |
| author | 1..1 | SHALL |  | [3343-27351](#C_3343-27351) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-12679](#C_3343-12679) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12680](#C_3343-12680) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-12681](#C_3343-12681) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Observation (V2)](#E_Planned_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27556).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12665).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28094).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-12666) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.60" (CONF:3343-12667).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27082).
6. SHALL contain exactly one [1..1] code (CONF:3343-12669).
   1. This code SHALL contain exactly one [1..1] @code="29545-1" physical examination (CONF:3343-13274).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28132).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-13275).  
   Note: QDM Attribute: Code
8. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27351).  
   Note: QDM Attribute: Author dateTime – the time the recommendation is authored (i.e., provided to the patient)
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12679) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12680).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-12681).

Figure 106: Physical Exam Recommended (V4) Example

<observation classCode="OBS" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>

<!-- Physical Exam Recommeded (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.60" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<code code="29545-1" codeSystem="2.16.840.1.113883.6.1"

displayName="physical examination" codeSystemName="LOINC"/>

<statusCode code="active"/>

<effectiveTime value="20170412"/>

<value xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"

displayName="Body weight" codeSystemName="LOINC"/>

<!-- QDM Attribute: Method -->

<methodCode code="8350-1" codeSystem="2.16.840.1.113883.6.1"

displayName="Body weight Measured --with clothes" codeSystemName="LOINC"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201707281130"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>

</observation>

</entryRelationship>

</observation>

Planned Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 181: Planned Procedure (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Indication (V2)](#Indication_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Planned Coverage](#E_Planned_Coverage) (optional) |

This template represents planned alterations of the patient's physical condition. Examples of such procedures are tracheostomy, knee replacement, and craniectomy. The priority of the procedure to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the procedure is intended to take place and authorTime indicates when the documentation of the plan occurred. The Planned Procedure Template may also indicate the potential insurance coverage for the procedure.

Table 182: Planned Procedure (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8568](#C_1098-8568) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [1098-8569](#C_1098-8569) | urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure)) |
| templateId | 1..1 | SHALL |  | [1098-30444](#C_1098-30444) |  |
| @root | 1..1 | SHALL |  | [1098-30445](#C_1098-30445) | 2.16.840.1.113883.10.20.22.4.41 |
| @extension | 1..1 | SHALL |  | [1098-32554](#C_1098-32554) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8571](#C_1098-8571) |  |
| code | 1..1 | SHALL |  | [1098-31976](#C_1098-31976) |  |
| statusCode | 1..1 | SHALL |  | [1098-30446](#C_1098-30446) |  |
| @code | 1..1 | SHALL |  | [1098-31978](#C_1098-31978) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-30447](#C_1098-30447) |  |
| methodCode | 0..\* | MAY |  | [1098-31980](#C_1098-31980) |  |
| targetSiteCode | 0..\* | MAY |  | [1098-31981](#C_1098-31981) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| performer | 0..\* | MAY |  | [1098-30449](#C_1098-30449) |  |
| author | 0..1 | SHOULD |  | [1098-31979](#C_1098-31979) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..\* | MAY |  | [1098-31079](#C_1098-31079) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31080](#C_1098-31080) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31081](#C_1098-31081) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-31982](#C_1098-31982) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31983](#C_1098-31983) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-31984](#C_1098-31984) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-31985](#C_1098-31985) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31986](#C_1098-31986) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-31987](#C_1098-31987) | true |
| act | 1..1 | SHALL |  | [1098-31989](#C_1098-31989) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-31990](#C_1098-31990) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31991](#C_1098-31991) | COMP |
| act | 1..1 | SHALL |  | [1098-31992](#C_1098-31992) | [Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129](#E_Planned_Coverage) |

1. SHALL contain exactly one [1..1] @classCode="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8568).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2011-09-30 (CONF:1098-8569).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30444) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.41" (CONF:1098-30445).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32554).
4. SHALL contain at least one [1..\*] id (CONF:1098-8571).
5. SHALL contain exactly one [1..1] code (CONF:1098-31976).
   1. The procedure/code in a planned procedure SHOULD be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) *OR* SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and MAY be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) **OR** ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) (CONF:1098-31977).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-30446).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31978).

The effectiveTime in a planned procedure represents the time that the procedure should occur.

1. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-30447).

In a planned procedure the provider may suggest that a procedure should be performed using a particular method.

MethodCode *SHALL NOT* conflict with the method inherent in Procedure / code.

1. MAY contain zero or more [0..\*] methodCode (CONF:1098-31980).

The targetSiteCode is used to identify the part of the body of concern for the planned procedure.

1. MAY contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

1. SHOULD contain zero or one [0..1] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31979).

The following entryRelationship represents the priority that a patient or a provider places on the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31079) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31080).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31081).

The following entryRelationship represents the indication for the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31982) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31983).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31985) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31986).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-31987).
   3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31990) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-31991).
   2. SHALL contain exactly one [1..1] [Planned Coverage](#E_Planned_Coverage) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-31992).

Figure 107: Planned Procedure (V2) Example

<entry>

<procedure moodCode="RQO" classCode="PROC">

<templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />

<!-- \*\*Planned Procedure (V2) template \*\* -->

<id root="9a6d1bac-17d3-4195-89c4-1121bc809b5a" />

<code code="73761001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Colonoscopy" />

<statusCode code="active" />

<effectiveTime value="20130613" />

<!-- Author Participation -->

<author typeCode="AUT">

...

</author>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Priority Preference-->

<templateId root="2.16.840.1.113883.10.20.22.4.142" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Priority Preference-->

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<!-- Indication-->

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<act classCode="ACT" moodCode="INT">

<!-- Instruction-->

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

...

</act>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="ACT" moodCode="INT">

<!-- Planned Coverage -->

<templateId root="2.16.840.1.113883.10.20.22.4.129" />

...

</observation>

</entryRelationship>

</procedure>

</entry>

Procedure Order (V5)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01 (open)]

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Table 183: Procedure Order (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Procedure, Order.  
Procedure Order describes an order for a procedure. A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person’s body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Note that procedure is distinct from intervention.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.  
QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 184: Procedure Order (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-27323](#C_4388-27323) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4388-11097](#C_4388-11097) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @negationInd | 0..1 | MAY |  | [4388-28097](#C_4388-28097) |  |
| templateId | 1..1 | SHALL |  | [4388-11098](#C_4388-11098) |  |
| @root | 1..1 | SHALL |  | [4388-11099](#C_4388-11099) | 2.16.840.1.113883.10.20.24.3.63 |
| @extension | 1..1 | SHALL |  | [4388-27083](#C_4388-27083) | 2018-10-01 |
| code | 1..1 | SHALL |  | [4388-27324](#C_4388-27324) |  |
| priorityCode | 0..1 | MAY |  | [4388-14551](#C_4388-14551) |  |
| targetSiteCode | 0..1 | MAY |  | [4388-27328](#C_4388-27328) |  |
| author | 1..1 | SHALL |  | [4388-27346](#C_4388-27346) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [4388-11616](#C_4388-11616) |  |
| @typeCode | 1..1 | SHALL |  | [4388-11617](#C_4388-11617) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-11618](#C_4388-11618) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Procedure (V2)](#E_Planned_Procedure_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-27323).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-11097).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-28097).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-11098) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.63" (CONF:4388-11099).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-27083).
6. SHALL contain exactly one [1..1] code (CONF:4388-27324).  
   Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] priorityCode (CONF:4388-14551).  
   Note: QDM Attribute: Ordinality
8. MAY contain zero or one [0..1] targetSiteCode (CONF:4388-27328).  
   Note: QDM Attribute: Anatomical Location Site
9. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-27346).  
   Note: QDM Attribute: Author dateTime – the time the order is signed
10. MAY contain zero or one [0..1] entryRelationship (CONF:4388-11616) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-11617).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-11618).

Figure 108: Procedure Order (V5) Example

<procedure classCode="PROC" moodCode="RQO">

<!-- Conforms to C-CDA R2 Planned Procedure (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09"/>

<!-- Procedure Order (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.63" extension="2018-10-01"/>

<id root="5bc8cc9d-d59a-4dda-99d8-1463b2e71d06"/>

<code code="235326000" displayName="Right hemicolectomy"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<text>Procedure, Order: Right hemicolectomy </text>

<statusCode code="active"/>

<!-- QDM Attribute: Ordinality -->

<priorityCode code="63161005" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Principal"/>

<!-- QDM Attribute: Anatomical Location Site -->

<targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="colon"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="20180329090000"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</procedure>

Procedure Recommended (V5)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01 (open)]

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Table 185: Procedure Recommended (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template represents the QDM datatype: Procedure, Recommended.  
Procedure Recommended describes a recommendation for a procedure. A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person’s body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Note that procedure is distinct from intervention.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM attributes: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 186: Procedure Recommended (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-27337](#C_4388-27337) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4388-11103](#C_4388-11103) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @negationInd | 0..1 | MAY |  | [4388-28099](#C_4388-28099) |  |
| templateId | 1..1 | SHALL |  | [4388-11104](#C_4388-11104) |  |
| @root | 1..1 | SHALL |  | [4388-11105](#C_4388-11105) | 2.16.840.1.113883.10.20.24.3.65 |
| @extension | 1..1 | SHALL |  | [4388-27086](#C_4388-27086) | 208-10-01 |
| code | 1..1 | SHALL |  | [4388-11107](#C_4388-11107) |  |
| priorityCode | 0..1 | MAY |  | [4388-14553](#C_4388-14553) |  |
| targetSiteCode | 0..1 | MAY |  | [4388-27726](#C_4388-27726) |  |
| translation | 0..\* | MAY |  | [4388-28940](#C_4388-28940) |  |
| author | 1..1 | SHALL |  | [4388-27352](#C_4388-27352) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [4388-11592](#C_4388-11592) |  |
| @typeCode | 1..1 | SHALL |  | [4388-11593](#C_4388-11593) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-27085](#C_4388-27085) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Procedure (V2)](#E_Planned_Procedure_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-27337).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-11103).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-28099).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-11104) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.65" (CONF:4388-11105).
   2. SHALL contain exactly one [1..1] @extension="208-10-01" (CONF:4388-27086).
6. SHALL contain exactly one [1..1] code (CONF:4388-11107).  
   Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] priorityCode (CONF:4388-14553).  
   Note: QDM Attribute: Ordinality
8. MAY contain zero or one [0..1] targetSiteCode (CONF:4388-27726).  
   Note: QDM Attribute: Anatomical Location Site
   1. The targetSiteCode, if present, MAY contain zero or more [0..\*] translation (CONF:4388-28940).  
      Note: QDM Attribute: Author dateTime – the time the recommendation was authored
9. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-27352).  
   Note: QDM Attribute: Author dateTime - the time the recommendation was signed
10. MAY contain zero or one [0..1] entryRelationship (CONF:4388-11592) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-11593).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-27085).

Figure 109: Procedure Recommended (V5) Example

<procedure classCode="PROC" moodCode="INT">

<!-- Conforms to C-CDA R2.1 Planned Procedure (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09"/>

<!-- Procedure Recommended (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.65" extension="2018-10-01"/>

<id root="5a132c58-bd4f-4c46-b082-b7f84909834f"/>

<!-- Procedure -->

<code code="235326000" displayName="Right hemicolectomy" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<text>Procedure, Recommended: Right hemicolectomy </text>

<statusCode code="active"/>

<!-- QDM Attribute: Ordinality -->

<priorityCode code="63161005" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Principal"/>

<!-- QDM Attribute: Anatomical Location Site -->

<targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="colon"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="20180329090000"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</procedure>

Planned Supply (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 187: Planned Supply (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Product Instance](#E_Product_Instance) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Medication Information (V2)](#E_Medication_Information_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (optional)  [Planned Coverage](#E_Planned_Coverage) (optional) |

This template represents both medicinal and non-medicinal supplies ordered, requested, or intended for the patient (e.g., medication prescription, order for wheelchair). The importance of the supply order or request to the patient and provider may be indicated in the Priority Preference.  
The effective time indicates the time when the supply is intended to take place and author time indicates when the documentation of the plan occurred. The Planned Supply template may also indicate the potential insurance coverage for the procedure.  
Depending on the type of supply, the product or participant will be either a Medication Information product (medication), an Immunization Medication Information product (immunization), or a Product Instance participant (device/equipment).

Table 188: Planned Supply (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8577](#C_1098-8577) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [1098-8578](#C_1098-8578) | urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply)) |
| templateId | 1..1 | SHALL |  | [1098-30463](#C_1098-30463) |  |
| @root | 1..1 | SHALL |  | [1098-30464](#C_1098-30464) | 2.16.840.1.113883.10.20.22.4.43 |
| @extension | 1..1 | SHALL |  | [1098-32556](#C_1098-32556) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8580](#C_1098-8580) |  |
| statusCode | 1..1 | SHALL |  | [1098-30458](#C_1098-30458) |  |
| @code | 1..1 | SHALL |  | [1098-32047](#C_1098-32047) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [1098-30459](#C_1098-30459) |  |
| repeatNumber | 0..1 | MAY |  | [1098-32063](#C_1098-32063) |  |
| quantity | 0..1 | MAY |  | [1098-32064](#C_1098-32064) |  |
| product | 0..1 | MAY |  | [1098-32049](#C_1098-32049) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-32050](#C_1098-32050) | [Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09](#E_Medication_Information_V2) |
| product | 0..1 | MAY |  | [1098-32051](#C_1098-32051) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1098-32052](#C_1098-32052) | [Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09](#Immunization_Medication_Information_V2) |
| product | 0..1 | SHOULD |  | [1098-32325](#C_1098-32325) |  |
| performer | 0..\* | MAY |  | [1098-32048](#C_1098-32048) |  |
| author | 0..1 | SHOULD |  | [1098-31129](#C_1098-31129) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..1 | MAY |  | [1098-32094](#C_1098-32094) |  |
| participantRole | 1..1 | SHALL |  | [1098-32095](#C_1098-32095) | [Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37](#E_Product_Instance) |
| entryRelationship | 0..\* | MAY |  | [1098-31110](#C_1098-31110) |  |
| @typeCode | 1..1 | SHALL |  | [1098-31111](#C_1098-31111) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1098-31112](#C_1098-31112) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..\* | MAY |  | [1098-32054](#C_1098-32054) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32055](#C_1098-32055) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-32056](#C_1098-32056) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32057](#C_1098-32057) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32058](#C_1098-32058) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| act | 1..1 | SHALL |  | [1098-32059](#C_1098-32059) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32060](#C_1098-32060) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32061](#C_1098-32061) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [1098-32062](#C_1098-32062) | [Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129](#E_Planned_Coverage) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8577).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet Planned moodCode (SubstanceAdministration/Supply) urn:oid:2.16.840.1.113883.11.20.9.24 STATIC 2011-09-30 (CONF:1098-8578).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30463) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.43" (CONF:1098-30464).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32556).
4. SHALL contain at least one [1..\*] id (CONF:1098-8580).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-30458).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32047).

The effectiveTime in a planned supply represents the time that the supply should occur.

1. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-30459).

In a Planned Supply, repeatNumber indicates the number of times the supply event can occur. For example, if a medication is filled at a pharmacy and the prescription may be refilled 3 more times, the supply RepeatNumber equals 4.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-32063).
2. MAY contain zero or one [0..1] quantity (CONF:1098-32064).

This product represents medication that is ordered, requested or intended for the patient.

1. MAY contain zero or one [0..1] product (CONF:1098-32049) such that it
   1. SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32050).
   2. If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product SHALL NOT be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant SHALL NOT be Product Instance (CONF:1098-32092).

This product represents immunization medication that is ordered, requested or intended for the patient.

1. MAY contain zero or one [0..1] product (CONF:1098-32051) such that it
   1. SHALL contain exactly one [1..1] [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32052).
   2. If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product SHALL NOT be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant SHALL NOT be Product Instance (CONF:1098-32093).

A product is recommended or even required under certain implementations. This IG makes product as recommended (SHOULD).

1. SHOULD contain zero or one [0..1] product (CONF:1098-32325).

The clinician who is expected to perform the supply could be identified using supply/performer.

1. MAY contain zero or more [0..\*] performer (CONF:1098-32048).

The author in a supply represents the clinician who is requesting or planning the supply.

1. SHOULD contain zero or one [0..1] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31129).

This participant represents a device that is ordered, requested or intended for the patient.

1. MAY contain zero or one [0..1] participant (CONF:1098-32094) such that it
   1. SHALL contain exactly one [1..1] [Product Instance](#E_Product_Instance) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-32095).
   2. If the participant is Product Instance then the product SHALL NOT be Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) and the product SHALL NOT be Immunization Medication Information (V2) (2.16.840.1.113883.10.20.22.4.54.2) (CONF:1098-32096).

The following entryRelationship represents the priority that a patient or a provider places on the supply.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31110) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31111).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31112).

The following entryRelationship represents the indication for the supply.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32054) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32055).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32056).

The following entryRelationship captures any instructions associated with the planned supply.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32057) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32058).
   2. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32059).

The following entryRelationship represents the insurance coverage the patient may have for the supply.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32060) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32061).
   2. SHALL contain exactly one [1..1] [Planned Coverage](#E_Planned_Coverage) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32062).

Figure 110: Planned Supply (V2) Example

<supply moodCode="INT" classCode="SPLY">

<templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09" />

<!-- Planned Supply (V2) -->

<id root="9a6d1bac-17d3-4195-89c4-1121bc809b5d" />

<statusCode code="active" />

<!-- The effectiveTime in a planned supply represents

the time that the supply should occur. -->

<effectiveTime value="20130615" />

<repeatNumber value="1" />

<quantity value="3" />

<!-- This product represents medication that is ordered,

requested or intended for the patient. -->

<product>

<manufacturedProduct classCode="MANU">

<!-- Medication Information (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />

<manufacturedMaterial>

<code code="573621" codeSystem="2.16.840.1.113883.6.88" displayName="Proventil 0.09 MG/ACTUAT inhalant solution">

<originalText>

<reference value="#MedSec\_1" />

</originalText>

<translation code="573621" displayName="Proventil 0.09 MG/ACTUAT inhalant solution" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />

</code>

</manufacturedMaterial>

<manufacturerOrganization>

<name>Medication Factory Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

</product>

<!-- The clinician who is expected to perform the supply

could be identified using supply/performer. -->

<performer>

...

</performer>

<!-- The author in a supply represents the clinician

who is requesting or planning the supply. -->

<author typeCode="AUT">

...

</author>

<entryRelationship typeCode="REFR">

<!-- Patient Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="REFR">

<!-- Provider Priority Preference -->

...

</entryRelationship>

<entryRelationship typeCode="RSON">

<!-- Indication (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<!-- Instruction (V2) -->

...

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Planned Coverage -->

...

</entryRelationship>

</supply>

Device Order (V4)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2017-08-01 (open)]

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Table 189: Device Order (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Device Order Act (V2)](#E_Device_Order_Act_V2) (required) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template, along with the Device Order Act (V2) template, represents the QDM datatype: Device, Order. This template must be contained by a Device Order Act (V2) template.  
This datatype represents an order for equipment designed to treat, monitor, or diagnose a patient's condition.  
The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

Table 190: Device Order (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27723](#C_3343-27723) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [3343-12343](#C_3343-12343) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| templateId | 1..1 | SHALL |  | [3343-12344](#C_3343-12344) |  |
| @root | 1..1 | SHALL |  | [3343-12345](#C_3343-12345) | 2.16.840.1.113883.10.20.24.3.9 |
| @extension | 1..1 | SHALL |  | [3343-27091](#C_3343-27091) | 2017-08-01 |
| author | 1..1 | SHALL |  | [3343-27721](#C_3343-27721) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-12349](#C_3343-12349) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12350](#C_3343-12350) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [3343-12351](#C_3343-12351) |  |
| @classCode | 1..1 | SHALL |  | [3343-12352](#C_3343-12352) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [3343-12353](#C_3343-12353) |  |
| @classCode | 1..1 | SHALL |  | [3343-12354](#C_3343-12354) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| code | 1..1 | SHALL |  | [3343-12355](#C_3343-12355) |  |
| entryRelationship | 0..1 | MAY |  | [3343-12356](#C_3343-12356) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12359](#C_3343-12359) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-12360](#C_3343-12360) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Supply (V2)](#E_Planned_Supply_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27723).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request, which SHALL be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12343).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-12344) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.9" (CONF:3343-12345).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27091).
5. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27721).  
   Note: QDM Attribute: Author dateTime - the device order was signed
6. SHALL contain exactly one [1..1] participant (CONF:3343-12349) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:3343-12350).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3343-12351).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" manufactured product, which SHALL be selected from CodeSystem HL7RoleClass (urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12352).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3343-12353).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:3343-12354).
         2. This playingDevice SHALL contain exactly one [1..1] code (CONF:3343-12355).  
            Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12356) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" has reason, which SHALL be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12359).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-12360).
8. This template *SHALL* be contained by a Device Order Act (V2) (CONF:3343-28665).

Figure 111: Device Order (V4) Example

<!-- Must be contained in the Device Order Act (V2) template to represent the Device, Order QDM data type -->

<supply classCode="SPLY" moodCode="RQO">

<!-- Conforms to C-CDA R2.1 Planned Supply (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>

<!-- Device Order (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.9" extension="2017-08-01"/>

<id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>

<statusCode code="active"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201710101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice classCode="DEV">

<!-- Device -->

<code code="401608003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>

</playingDevice>

</participantRole>

</participant>

...

</supply>

Device Recommended (V4)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01 (open)]

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Table 191: Device Recommended (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Device Recommended Act (V2)](#E_Device_Recommended_Act_V2) (required) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (required) |

This template along with the Device Recommended Act (V2) represents the QDM datatype: Device, Recommended. This template must be contained by a Device Recommended Act (V2) template.  
This datatype represents a recommendation for equipment designed to treat, monitor, or diagnose a patient's condition.  
The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.  
QDM Attribute: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.

Table 192: Device Recommended (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27722](#C_3343-27722) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [3343-12368](#C_3343-12368) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [3343-12369](#C_3343-12369) |  |
| @root | 1..1 | SHALL |  | [3343-12370](#C_3343-12370) | 2.16.840.1.113883.10.20.24.3.10 |
| @extension | 1..1 | SHALL |  | [3343-27094](#C_3343-27094) | 2017-08-01 |
| author | 1..1 | SHALL |  | [3343-27719](#C_3343-27719) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-12374](#C_3343-12374) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12375](#C_3343-12375) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [3343-12376](#C_3343-12376) |  |
| @classCode | 1..1 | SHALL |  | [3343-12377](#C_3343-12377) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [3343-12378](#C_3343-12378) |  |
| @classCode | 1..1 | SHALL |  | [3343-12379](#C_3343-12379) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| code | 1..1 | SHALL |  | [3343-12380](#C_3343-12380) |  |
| entryRelationship | 0..1 | MAY |  | [3343-12381](#C_3343-12381) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12382](#C_3343-12382) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27093](#C_3343-27093) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Planned Supply (V2)](#E_Planned_Supply_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27722).
3. SHALL contain exactly one [1..1] @moodCode="INT" Intent, which SHALL be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12368).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-12369) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.10" (CONF:3343-12370).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27094).
5. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-27719).  
   Note: QDM Attribute: Author dateTime – the time the device recommendation is authored (i.e., provided to the patient)
6. SHALL contain exactly one [1..1] participant (CONF:3343-12374) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:3343-12375).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3343-12376).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" manufactured product, which SHALL be selected from CodeSystem HL7RoleClass (urn:oid:2.16.840.1.113883.5.110) (CONF:3343-12377).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3343-12378).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:3343-12379).
         2. This playingDevice SHALL contain exactly one [1..1] code (CONF:3343-12380).  
            Note: QDM Attribute: Code
7. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12381) such that it  
   Note: QDM Attribute: Reason
   1. SHALL contain exactly one [1..1] @typeCode="RSON" has reason, which SHALL be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12382).
   2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27093).
8. This template *SHALL* be contained by a Device Recommended Act (V2) (CONF:3343-28666).

Figure 112: Device Recommended (V4) Example

<!-- Must be contained in the Device Recommended Act (V2) template to represent the Device, Recommended QDM data type -->

<supply classCode="SPLY" moodCode="INT">

<!-- C-CDA R2.1 : Planned Supply (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>

<!-- Device Recommended (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.10" extension="2017-08-01"/>

<id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>

<statusCode code="active"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201705101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice classCode="DEV">

<!-- Device -->

<code code="401608003" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>

</playingDevice>

</participantRole>

</participant>

...

</supply>

Medication Supply Request (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 3, US Realm

Table 193: Medication Supply Request (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Order (V5)](#E_Medication_Order_V5) (optional) |  |

This template represents a request to a pharmacy to supply a medication. An effectiveTime is required.

Table 194: Medication Supply Request (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05) | | | | | |
| @classCode | 1..1 | SHALL |  | [1140-28373](#C_1140-28373) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [1140-13820](#C_1140-13820) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| templateId | 1..1 | SHALL |  | [1140-13821](#C_1140-13821) |  |
| @root | 1..1 | SHALL |  | [1140-13822](#C_1140-13822) | 2.16.840.1.113883.10.20.24.3.99 |
| @extension | 1..1 | SHALL |  | [1140-28374](#C_1140-28374) | 2014-04-05 |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [1140-13829](#C_1140-13829) |  |
| independentInd | 0..1 | MAY |  | [1140-13831](#C_1140-13831) |  |

1. Conforms to [Planned Supply (V2)](#E_Planned_Supply_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1140-28373).
3. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1140-13820).
4. SHALL contain exactly one [1..1] templateId (CONF:1140-13821) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.99" (CONF:1140-13822).
   2. SHALL contain exactly one [1..1] @extension="2014-04-05" (CONF:1140-28374).
5. SHALL contain exactly one [1..1] effectiveTime (CONF:1140-13829).
6. MAY contain zero or one [0..1] independentInd (CONF:1140-13831).

Figure 113: Medication Supply Request (V2)

<supply classCode="SPLY" moodCode="RQO">

<!-- Medication Supply Request (V2) template -->

<templateId root="2.16.840.1.113883.10.20.24.3.99"

extension="2014-04-05"/>

<!-- Conforms to C-CDA R2 Planned Supply (V2) template-->

<templateId root="2.16.840.1.113883.10.20.22.4.43

extension="2014-06-09" />

<id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS">

<!-- Attribute: start datetime -->

<low value="20120329140000+0500"/>

<!-- Attribute: stop datetime -->

<high value="20120429140000+0500"/>

</effectiveTime>

<!-- Attribute: refills -->

<repeatNumber value="4"/>

<!-- Signals that the Supply cannot stand alone,

without its containing Substance Administration -->

<independentInd value="false"/>

<!-- Attribute: number -->

<quantity value="150"/>

<product>

<manufacturedProduct classCode="MANU">

<!-- Conforms to C-CDA R2 Medication Information (V2) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.23"

extension="2014-06-09" />

<id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />

<manufacturedMaterial>

<code code="329498"

codeSystem="2.16.840.1.113883.6.88"

displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"/>

</manufacturedMaterial>

<manufacturerOrganization>

<name>Medication Factory Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

</product>

</supply>

Precondition for Substance Administration (V2)

[criterion: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 (open)]

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Table 195: Precondition for Substance Administration (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (optional) |  |

A criterion for administration can be used to record that the medication is to be administered only when the associated criteria are met.

Table 196: Precondition for Substance Administration (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| criterion (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) | | | | | |
| templateId | 1..1 | SHALL |  | [1098-7372](#C_1098-7372) |  |
| @root | 1..1 | SHALL |  | [1098-10517](#C_1098-10517) | 2.16.840.1.113883.10.20.22.4.25 |
| @extension | 1..1 | SHALL |  | [1098-32603](#C_1098-32603) | 2014-06-09 |
| code | 1..1 | SHALL | CD | [1098-32396](#C_1098-32396) |  |
| @code | 1..1 | SHALL |  | [1098-32397](#C_1098-32397) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1098-32398](#C_1098-32398) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [1098-7369](#C_1098-7369) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |

1. SHALL contain exactly one [1..1] templateId (CONF:1098-7372) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.25" (CONF:1098-10517).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32603).
2. SHALL contain exactly one [1..1] code with @xsi:type="CD" (CONF:1098-32396).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1098-32397).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32398).
3. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1098-7369).

Figure 114: Precondition for Substance Administration (V2) Example

<criterion>

<templateId root="2.16.840.1.113883.10.20.22.4.25"

extension="2014-06-09" />

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<value xsi:type="CD"

code="56018004"

codeSystem="2.16.840.1.113883.6.96"

displayName="Wheezing" />

</criterion>

Principal Diagnosis

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 197: Principal Diagnosis Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Encounter Performed (V4)](#E_Encounter_Performed_V4) (optional) |  |

This template represents the Principal Diagnosis QDM Attribute.  
The coded diagnosis/problem established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

Table 198: Principal Diagnosis Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-29004](#C_3343-29004) | OBS |
| @moodCode | 1..1 | SHALL |  | [3343-29005](#C_3343-29005) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-29006](#C_3343-29006) |  |
| templateId | 1..1 | SHALL |  | [3343-28998](#C_3343-28998) |  |
| @root | 1..1 | SHALL |  | [3343-29001](#C_3343-29001) | 2.16.840.1.113883.10.20.24.3.152 |
| @extension | 1..1 | SHALL |  | [3343-29002](#C_3343-29002) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28997](#C_3343-28997) |  |
| @code | 1..1 | SHALL |  | [3343-28999](#C_3343-28999) | 8319008 |
| @codeSystem | 1..1 | SHALL |  | [3343-29000](#C_3343-29000) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| value | 1..1 | SHALL | CD | [3343-29003](#C_3343-29003) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-29004).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-29005).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-29006).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28998) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.152" (CONF:3343-29001).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-29002).
5. SHALL contain exactly one [1..1] code (CONF:3343-28997).
   1. This code SHALL contain exactly one [1..1] @code="8319008" Principal Diagnosis  (CONF:3343-28999).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-29000).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-29003).

Figure 115: Principal Diagnosis Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.152" extension="2017-08-01"/>

<id root="92587992-6147-467e-8ce7-b080ef569df4"/>

<code code="8319008" codeSystem="2.16.840.1.113883.6.96"

displayName="Principal Diagnosis" codeSystemName="SNOMED"/>

<value xsi:type="CD" code="194809007" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Acute atrial infarction (disorder)"/>

</observation>

Priority Preference

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.143 (open)]

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Table 199: Priority Preference Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Goal Observation](#E_Goal_Observation_U) (optional)  [Planned Act (V2)](#E_Planned_Act_V2) (optional)  [Planned Encounter (V2)](#E_Planned_Encounter_V2) (optional)  [Planned Procedure (V2)](#E_Planned_Procedure_V2) (optional)  [Planned Observation (V2)](#E_Planned_Observation_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (optional)  [Problem Observation (V3)](#E_Problem_Observation_V3) (optional)  [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) (optional) | [Author Participation](#U_Author_Participation) (optional) |

This template represents priority preferences chosen by a patient or a care provider. Priority preferences are choices made by care providers or patients or both relative to options for care or treatment (including scheduling, care experience, and meeting of personal health goals), the sharing and disclosure of health information, and the prioritization of concerns and problems.

Table 200: Priority Preference Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-30949](#C_1098-30949) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-30950](#C_1098-30950) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-30951](#C_1098-30951) |  |
| @root | 1..1 | SHALL |  | [1098-30952](#C_1098-30952) | 2.16.840.1.113883.10.20.22.4.143 |
| id | 1..\* | SHALL |  | [1098-30953](#C_1098-30953) |  |
| code | 1..1 | SHALL |  | [1098-30954](#C_1098-30954) |  |
| @code | 1..1 | SHALL |  | [1098-30955](#C_1098-30955) | 225773000 |
| @codeSystem | 1..1 | SHALL |  | [1098-30956](#C_1098-30956) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 0..1 | SHOULD |  | [1098-32327](#C_1098-32327) |  |
| value | 1..1 | SHALL | CD | [1098-30957](#C_1098-30957) | urn:oid:2.16.840.1.113883.11.20.9.60 (Priority Level) |
| author | 0..\* | SHOULD |  | [1098-30958](#C_1098-30958) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30949).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30950).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-30951) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.143" (CONF:1098-30952).
4. SHALL contain at least one [1..\*] id (CONF:1098-30953).
5. SHALL contain exactly one [1..1] code (CONF:1098-30954).
   1. This code SHALL contain exactly one [1..1] @code="225773000" Preference (CONF:1098-30955).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30956).
6. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-32327).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Priority Level urn:oid:2.16.840.1.113883.11.20.9.60 STATIC 2014-06-11 (CONF:1098-30957).
8. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30958).

Figure 116: Priority Preference Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

<id root="7d66f448-ba82-4291-a9da-9e5db5e58803" />

<code code="225773000"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="preference" />

<value xsi:type="CD"

code="394849002"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="High priority" />

<!--

Author Participation Template

In this case, the author is the same as a participant already described in the header.

However, the author could be a the record target (patient), a different provider -

someone else in the header, or a new provider not elsewhere specified.

-->

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<time value="20130801" />

<assignedAuthor>

<!-- This id points back to a participant in the header -->

<id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />

</assignedAuthor>

</author>

</observation>

Problem Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2.1

Table 201: Problem Concern Act (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Priority Preference](#E_Priority_Preference) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Problem Observation (V3)](#E_Problem_Observation_V3) (required) |

This template reflects an ongoing concern on behalf of the provider that placed the concern on a patient’s problem list. So long as the underlying condition is of concern to the provider (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest to the provider), the statusCode is “active”. Only when the underlying condition is no longer of concern is the statusCode set to “completed”. The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, the clinician may remain concerned about a prior heart attack).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

The effectiveTime/low of the Problem Concern Act asserts when the concern became active. The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

A Problem Concern Act can contain many Problem Observations (templateId 2.16.840.1.113883.10.20.22.4.4). Each Problem Observation is a discrete observation of a condition, and therefore will have a statusCode of “completed”. The many Problem Observations nested under a Problem Concern Act reflect the change in the clinical understanding of a condition over time. For instance, a Concern may initially contain a Problem Observation of “chest pain”:

* Problem Concern 1  
  --- Problem Observation: Chest Pain  
  Later, a new Problem Observation of “esophagitis” will be added, reflecting a better understanding of the nature of the chest pain. The later problem observation will have a more recent author time stamp.
* Problem Concern 1  
  --- Problem Observation (author/time Jan 3, 2012): Chest Pain  
  --- Problem Observation (author/time Jan 6, 2012): Esophagitis  
  Many systems display the nested Problem Observation with the most recent author time stamp, and provide a mechanism for viewing prior observations.

Table 202: Problem Concern Act (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-9024](#C_1198-9024) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1198-9025](#C_1198-9025) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-16772](#C_1198-16772) |  |
| @root | 1..1 | SHALL |  | [1198-16773](#C_1198-16773) | 2.16.840.1.113883.10.20.22.4.3 |
| @extension | 1..1 | SHALL |  | [1198-32509](#C_1198-32509) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-9026](#C_1198-9026) |  |
| code | 1..1 | SHALL |  | [1198-9027](#C_1198-9027) |  |
| @code | 1..1 | SHALL |  | [1198-19184](#C_1198-19184) | CONC |
| @codeSystem | 1..1 | SHALL |  | [1198-32168](#C_1198-32168) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6 |
| statusCode | 1..1 | SHALL |  | [1198-9029](#C_1198-9029) |  |
| @code | 1..1 | SHALL |  | [1198-31525](#C_1198-31525) | urn:oid:2.16.840.1.113883.11.20.9.19 (ProblemAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [1198-9030](#C_1198-9030) |  |
| low | 1..1 | SHALL |  | [1198-9032](#C_1198-9032) |  |
| high | 0..1 | MAY |  | [1198-9033](#C_1198-9033) |  |
| author | 0..\* | SHOULD |  | [1198-31146](#C_1198-31146) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 1..\* | SHALL |  | [1198-9034](#C_1198-9034) |  |
| @typeCode | 1..1 | SHALL |  | [1198-9035](#C_1198-9035) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| observation | 1..1 | SHALL |  | [1198-15980](#C_1198-15980) | [Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01](#E_Problem_Observation_V3) |
| entryRelationship | 0..\* | MAY |  | [1198-31638](#C_1198-31638) |  |
| @typeCode | 1..1 | SHALL |  | [1198-31639](#C_1198-31639) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1198-31640](#C_1198-31640) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-9024).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-9025).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-16772) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.3" (CONF:1198-16773).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32509).
4. SHALL contain at least one [1..\*] id (CONF:1198-9026).
5. SHALL contain exactly one [1..1] code (CONF:1198-9027).
   1. This code SHALL contain exactly one [1..1] @code="CONC" Concern (CONF:1198-19184).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32168).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-9029).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

* 1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ProblemAct statusCode urn:oid:2.16.840.1.113883.11.20.9.19 STATIC (CONF:1198-31525).

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-9030).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-9032).  
      Note: The effectiveTime/low of the Problem Concern Act asserts when the concern became active.
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:1198-9033).  
      Note: The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).
2. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31146).
3. SHALL contain at least one [1..\*] entryRelationship (CONF:1198-9034) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-9035).
   2. SHALL contain exactly one [1..1] [Problem Observation (V3)](#E_Problem_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15980).

The following entryRelationship represents the importance of the concern to a provider.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-31638) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31639).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31640).

Figure 117: Problem Concern Act (V3) Example

<act classCode="ACT" moodCode="EVN">

<!-- \*\* Problem Concern Act (V3) \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.3"

extension="2015-08-01" />

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7" />

<code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern" />

<!-- The statusCode represents the need to continue tracking the problem -->

<!-- This is of ongoing concern to the provider -->

<statusCode code="active" />

<effectiveTime>

<!-- The low value represents when the problem was first recorded in the patient's chart -->

<!-- Concern was documented on July 6, 2013 -->

<low value="201307061145-0800" />

</effectiveTime>

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<!-- Same as Concern effectiveTime/low -->

<time value="201307061145-0800" />

<assignedAuthor>

<id extension="555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.6.101"

codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />

</assignedAuthor>

</author>

<entryRelationship typeCode="SUBJ">

<observation classCode="OBS" moodCode="EVN">

<!-- \*\* Problem Observation (V3) \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

<id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />

<code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Condition" />

<!-- The statusCode reflects the status of the observation itself -->

<statusCode code="completed" />

<effectiveTime>

<!-- The low value reflects the date of onset -->

<!-- Based on patient symptoms, presumed onset is July 3, 2013 -->

<low value="20130703" />

<!-- The high value reflects when the problem was known to be resolved -->

<!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->

<high value="20080814" />

</effectiveTime>

<value xsi:type="CD"

code="233604007"

codeSystem="2.16.840.1.113883.6.96"

displayName="Pneumonia" />

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<time value="200808141030-0800" />

<assignedAuthor>

<id extension="555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X"

displayName="Adult Medicine"

codeSystem="2.16.840.1.113883.6.101"

codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />

</assignedAuthor>

</author>

</observation>

</entryRelationship>

</act>

Diagnosis Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01 (open)]

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Table 203: Diagnosis Concern Act (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Diagnosis (V2)](#E_Diagnosis_V2) (required) |

This template, along with its contained template Diagnosis (V2), represents the QDM datatype: Diagnosis.  
The effectiveTime/low of the Diagnosis Concern Act (V2) 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 diagnosis was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).  
The QDM category Condition/Diagnosis/Problem represents a practitioner’s identification of a patient’s disease, illness, injury, or condition. This QDM category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient’s plan of care (e.g., pregnancy).  
Diagnosis Concern Act (V2) is derived from the Problem Concern Act template with diagnosis being subject of concern. C-CDA has defined health concerns and problem concerns. Problem concerns are a subset of health concerns. Depending on what QDM data type is used to specify a health concern in a measure, appropriate QRDA template would be used.

Table 204: Diagnosis Concern Act (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28148](#C_3343-28148) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28149](#C_3343-28149) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-28143](#C_3343-28143) |  |
| @root | 1..1 | SHALL |  | [3343-28146](#C_3343-28146) | 2.16.840.1.113883.10.20.24.3.137 |
| @extension | 1..1 | SHALL |  | [3343-28692](#C_3343-28692) | 2017-08-01 |
| statusCode | 1..1 | SHALL |  | [3343-28144](#C_3343-28144) |  |
| @code | 1..1 | SHALL |  | [3343-28150](#C_3343-28150) | urn:oid:2.16.840.1.113762.1.4.1021.35 (QDM Diagnosis Status) |
| entryRelationship | 1..1 | SHALL |  | [3343-28142](#C_3343-28142) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28151](#C_3343-28151) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| observation | 1..1 | SHALL |  | [3343-28145](#C_3343-28145) | [Diagnosis (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01](#E_Diagnosis_V2) |

1. Conforms to [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28148).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28149).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28143) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.137" (CONF:3343-28146).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28692).
5. SHALL contain exactly one [1..1] statusCode (CONF:3343-28144).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet QDM Diagnosis Status urn:oid:2.16.840.1.113762.1.4.1021.35 DYNAMIC (CONF:3343-28150).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28142) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28151).
   2. SHALL contain exactly one [1..1] [Diagnosis (V2)](#E_Diagnosis_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01) (CONF:3343-28145).

Figure 118: Diagnosis Concern Act (V3) Example

<act classCode="ACT" moodCode="EVN">

<!-- Conforms to C-CDA 2.1 Problem Concern Act (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01"/>

<!-- Diagnosis Concern Act (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.137" extension="2017-08-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern"/>

<!-- The statusCode represents whether this is an active (active) or resolved (completed) diagnosis -->

<statusCode code="active"/>

<!-- This is the time that the diagnosis is authored in the patient's chart -->

<effectiveTime>

<!-- (equivalent to author/time in the contained observation) -->

<low value="201504081130"/>

</effectiveTime>

<entryRelationship typeCode="SUBJ">

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Problem Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>

<!-- Diagnosis (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.135" extension="2017-08-01"/>

<id root="e5d9e01e-d778-40ba-9bd0-351d0222b26c"/>

<code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC">

<translation code="282291009" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

</code>

<statusCode code="completed"/>

<effectiveTime>

<!-- Onset Datetime -->

<low value="20170101090000+0500"/>

<!-- Abatement Datetime -->

<high value="20170801090000+0500"/>

</effectiveTime>

<value xsi:type="CD" code="25907005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" displayName="Diabetic gangrene (disorder)"/>

<!-- QDM Attribute Anatomical Location Site -->

<targetSiteCode code="56459004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="foot"/>

<!-- QDM Attribute: Severity -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09"/>

<code code="SEV" displayName="Severity Observation"

codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>

<value xsi:type="CD" code="24484000" displayName="Severe"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

</observation>

</entryRelationship>

</observation>

</entryRelationship>

</act>

Symptom Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 205: Symptom Concern Act (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Symptom (V2)](#E_Symptom_V2) (required) |

This template, along with its contained template Symptom (V2), represents the QDM datatype: Symptom.  
The effectiveTime/low of the Symptom Concern Act (V3) asserts when the problem concern became active. This equates to the time the problem concern was authored in the patient's chart.

Table 206: Symptom Concern Act (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28547](#C_3343-28547) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-28548](#C_3343-28548) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-28539](#C_3343-28539) |  |
| @root | 1..1 | SHALL |  | [3343-28544](#C_3343-28544) | 2.16.840.1.113883.10.20.24.3.138 |
| @extension | 1..1 | SHALL |  | [3343-28694](#C_3343-28694) | 2017-08-01 |
| statusCode | 1..1 | SHALL |  | [3343-28540](#C_3343-28540) |  |
| @code | 1..1 | SHALL |  | [3343-28545](#C_3343-28545) | urn:oid:2.16.840.1.113762.1.4.1021.35 (QDM Diagnosis Status) |
| entryRelationship | 1..1 | SHALL |  | [3343-28538](#C_3343-28538) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28543](#C_3343-28543) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| observation | 1..1 | SHALL |  | [3343-28542](#C_3343-28542) | [Symptom (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01](#E_Symptom_V2) |

1. Conforms to [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28547).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28548).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28539) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.138" (CONF:3343-28544).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28694).
5. SHALL contain exactly one [1..1] statusCode (CONF:3343-28540).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet QDM Diagnosis Status urn:oid:2.16.840.1.113762.1.4.1021.35 DYNAMIC (CONF:3343-28545).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:3343-28538) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28543).
   2. SHALL contain exactly one [1..1] [Symptom (V2)](#E_Symptom_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01) (CONF:3343-28542).

Figure 119: Symptom Concern Act (V3) Example

<act classCode="ACT" moodCode="EVN">

<!-- Conforms to C-CDA 2.1 Problem Concern Act (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01"/>

<!-- Symptom Concern Act (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.138" extension="2017-08-01"/>

<id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>

<code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern"/>

<!-- The statusCode represents whether this is an active (active) or resolved (completed) symptom -->

<statusCode code="completed"/>

<!-- This is the time that the symptom is authored in the patient's chart -->

<effectiveTime>

<!-- equivalent to author/time in the contained observation -->

<low value="201704081130"/>

</effectiveTime>

<entryRelationship typeCode="SUBJ">

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Problem Observation (V3) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>

<!-- Symptom (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.136" extension="2017-08-01"/>

<id root="e5d9e01e-d778-40ba-9bd0-351d0222b299"/>

<code code="75325-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Symptom">

<translation code="418799008" displayName="Symptom"

codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96"/>

</code>

<statusCode code="completed"/>

<effectiveTime>

<!-- Onset Datetime -->

<low value="201704041129"/>

<!-- Abatement Datetime -->

<high value="201704081129"/>

</effectiveTime>

<value xsi:type="CD" code="233604007" codeSystem="2.16.840.1.113883.6.96" displayName="Shortness of breath"/>

</observation>

</entryRelationship>

</act>

Problem Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2.1

Table 207: Problem Observation (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Deceased Observation (V3)](#E_Deceased_Observation_V3) (optional)  [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) (required)  [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) (required) | [Problem Status](#E_Problem_Status) (optional)  [Age Observation](#E_Age_Observation) (optional)  [Prognosis Observation](#E_Prognosis_Observation) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Author Participation](#U_Author_Participation) (optional) |

This template reflects a discrete observation about a patient's problem. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the “biologically relevant time” is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

The effectiveTime of the Problem Observation is the definitive indication of whether or not the underlying condition is resolved. If the problem is known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

Table 208: Problem Observation (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-9041](#C_1198-9041) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1198-9042](#C_1198-9042) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [1198-10139](#C_1198-10139) |  |
| templateId | 1..1 | SHALL |  | [1198-14926](#C_1198-14926) |  |
| @root | 1..1 | SHALL |  | [1198-14927](#C_1198-14927) | 2.16.840.1.113883.10.20.22.4.4 |
| @extension | 1..1 | SHALL |  | [1198-32508](#C_1198-32508) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-9043](#C_1198-9043) |  |
| code | 1..1 | SHALL |  | [1198-9045](#C_1198-9045) | urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2012-06-01 (Problem Type (SNOMED CT)) |
| statusCode | 1..1 | SHALL |  | [1198-9049](#C_1198-9049) |  |
| @code | 1..1 | SHALL |  | [1198-19112](#C_1198-19112) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1198-9050](#C_1198-9050) |  |
| low | 1..1 | SHALL |  | [1198-15603](#C_1198-15603) |  |
| high | 0..1 | MAY |  | [1198-15604](#C_1198-15604) |  |
| value | 1..1 | SHALL | CD | [1198-9058](#C_1198-9058) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |
| @code | 0..1 | MAY |  | [1198-31871](#C_1198-31871) |  |
| qualifier | 0..\* | MAY |  | [1198-31870](#C_1198-31870) |  |
| translation | 0..\* | MAY |  | [1198-16749](#C_1198-16749) |  |
| @code | 0..1 | MAY |  | [1198-16750](#C_1198-16750) | urn:oid:2.16.840.1.113883.6.90 (ICD-10-CM) |
| author | 0..\* | SHOULD |  | [1198-31147](#C_1198-31147) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| entryRelationship | 0..1 | MAY |  | [1198-9059](#C_1198-9059) |  |
| @typeCode | 1..1 | SHALL |  | [1198-9060](#C_1198-9060) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1198-9069](#C_1198-9069) | true |
| observation | 1..1 | SHALL |  | [1198-15590](#C_1198-15590) | [Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31](#E_Age_Observation) |
| entryRelationship | 0..1 | MAY |  | [1198-29951](#C_1198-29951) |  |
| @typeCode | 1..1 | SHALL |  | [1198-31531](#C_1198-31531) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1198-29952](#C_1198-29952) | [Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113](#E_Prognosis_Observation) |
| entryRelationship | 0..\* | MAY |  | [1198-31063](#C_1198-31063) |  |
| @typeCode | 1..1 | SHALL |  | [1198-31532](#C_1198-31532) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1198-31064](#C_1198-31064) | [Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143](#E_Priority_Preference) |
| entryRelationship | 0..1 | MAY |  | [1198-9063](#C_1198-9063) |  |
| @typeCode | 1..1 | SHALL |  | [1198-9068](#C_1198-9068) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [1198-15591](#C_1198-15591) | [Problem Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.6](#E_Problem_Status) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-9041).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-9042).

The negationInd is used to indicate the absence of the condition in observation/value. A negationInd of "true" coupled with an observation/value of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

1. MAY contain zero or one [0..1] @negationInd (CONF:1198-10139).
2. SHALL contain exactly one [1..1] templateId (CONF:1198-14926) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1198-14927).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32508).
3. SHALL contain at least one [1..\*] id (CONF:1198-9043).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet Problem Type (SNOMED CT) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2012-06-01 STATIC 2012-06-01 (CONF:1198-9045).
   1. If code is selected from ValueSet Problem Type (SNOMED CT) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2012-06-01 STATIC 2012-06-01, then it SHALL have at least one [1..\*] translation, which SHOULD be selected from ValueSet Problem Type (LOINC) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2014-09-02 STATIC 2014-09-02 (CONF:1198-32950).
5. SHALL contain exactly one [1..1] statusCode (CONF:1198-9049).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19112).

If the problem is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'. Therefore, the existence of a high element within a problem does indicate that the problem has been resolved.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became biologically active.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-15603).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became biologically resolved.

* 1. This effectiveTime MAY contain zero or one [0..1] high (CONF:1198-15604).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1198-9058).

A negationInd of "true" coupled with an observation/value/@code of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

* 1. This value MAY contain zero or one [0..1] @code (CONF:1198-31871).

The observation/value and all the qualifiers together (often referred to as a post-coordinated expression) make up one concept. Qualifiers constrain the meaning of the primary code, and cannot negate it or change its meaning. Qualifiers can only be used according to well-defined rules of post-coordination and only if the underlying code system defines the use of such qualifiers or if there is a third code system that specifies how other code systems may be combined.  
For example, SNOMED CT allows constructing concepts as a combination of multiple codes. SNOMED CT defines a concept "pneumonia (disorder)" (233604007) an attribute "finding site" (363698007) and another concept "left lower lobe of lung (body structure)" (41224006). SNOMED CT allows one to combine these codes in a code phrase, as shown in the sample XML.

* 1. This value MAY contain zero or more [0..\*] qualifier (CONF:1198-31870).
  2. This value MAY contain zero or more [0..\*] translation (CONF:1198-16749) such that it
     1. MAY contain zero or one [0..1] @code (CodeSystem: ICD-10-CM urn:oid:2.16.840.1.113883.6.90 STATIC) (CONF:1198-16750).

1. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31147).
2. MAY contain zero or one [0..1] entryRelationship (CONF:1198-9059) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-9060).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1198-9069).
   3. SHALL contain exactly one [1..1] [Age Observation](#E_Age_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15590).
3. MAY contain zero or one [0..1] entryRelationship (CONF:1198-29951) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31531).
   2. SHALL contain exactly one [1..1] [Prognosis Observation](#E_Prognosis_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:1198-29952).
4. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-31063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31532).
   2. SHALL contain exactly one [1..1] [Priority Preference](#E_Priority_Preference) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31064).
5. MAY contain zero or one [0..1] entryRelationship (CONF:1198-9063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-9068).
   2. SHALL contain exactly one [1..1] [Problem Status](#E_Problem_Status) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.6) (CONF:1198-15591).

Figure 120: Problem Observation (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- \*\* Problem Observation (V3) \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

<id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />

<code code="64572001" displayName="Condition"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<translation code="75323-6"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Condition"/>

</code>

<!-- The statusCode reflects the status of the observation itself -->

<statusCode code="completed" />

<effectiveTime>

<!-- The low value reflects the date of onset -->

<!-- Based on patient symptoms, presumed onset is July 3, 2013 -->

<low value="20130703" />

<!-- The high value reflects when the problem was known to be resolved -->

<!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->

<high value="20080814" />

</effectiveTime>

<value xsi:type="CD"

code="233604007"

codeSystem="2.16.840.1.113883.6.96"

displayName="Pneumonia" />

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<time value="200808141030-0800" />

<assignedAuthor>

<id extension="555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X"

displayName="Adult Medicine"

codeSystem="2.16.840.1.113883.6.101"

codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />

</assignedAuthor>

</author>

</observation>

Diagnosis (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01 (open)]

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Table 209: Diagnosis (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Diagnosis Concern Act (V3)](#E_Diagnosis_Concern_Act_V3) (required) | [Severity Observation (V2)](#E_Severity_Observation_V2) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Diagnosis. This template must be contained by a Diagnosis Concern Act (V3) template.  
Condition/Diagnosis/Problem represents a practitioner’s identification of a patient’s disease, illness, injury, or condition. This category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient’s plan of care (e.g., pregnancy).  
The onset dateTtime corresponds to the implicit start dateTime of the diagnosis and the abatement dateTime corresponds to the implicit stop dateTime of the diagnosis. If the abatement dateTime is not present, then the diagnosis is considered to still be active. When this is used with timing relationships, the criterion is looking for an active diagnosis for the time frame indicated by the timing relationships.  
QDM Attribute: Prevalence Period references the time from the onset date (observation/effectiveTime/low) to the abatement date (observation/effectiveTime/high). If effectiveTime/high is null, then the diagnosis is considered to still be active.

Table 210: Diagnosis (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28510](#C_3343-28510) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28511](#C_3343-28511) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28512](#C_3343-28512) |  |
| templateId | 1..1 | SHALL |  | [3343-28498](#C_3343-28498) |  |
| @root | 1..1 | SHALL |  | [3343-28503](#C_3343-28503) | 2.16.840.1.113883.10.20.24.3.135 |
| @extension | 1..1 | SHALL |  | [3343-28887](#C_3343-28887) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28499](#C_3343-28499) |  |
| @code | 1..1 | SHALL |  | [3343-28505](#C_3343-28505) | 29308-4 |
| @codeSystem | 1..1 | SHALL |  | [3343-28506](#C_3343-28506) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| translation | 1..1 | SHALL |  | [3343-28886](#C_3343-28886) |  |
| @code | 1..1 | SHALL |  | [3343-28888](#C_3343-28888) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 282291009 |
| targetSiteCode | 0..1 | MAY |  | [3343-28501](#C_3343-28501) |  |
| author | 0..1 | MAY |  | [3343-28889](#C_3343-28889) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-28497](#C_3343-28497) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28507](#C_3343-28507) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-28502](#C_3343-28502) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09](#E_Severity_Observation_V2) |

1. Conforms to [Problem Observation (V3)](#E_Problem_Observation_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28510).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28511).
4. SHALL NOT contain [0..0] @negationInd (CONF:3343-28512).
5. SHALL contain exactly one [1..1] templateId (CONF:3343-28498) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.135" (CONF:3343-28503).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28887).
6. SHALL contain exactly one [1..1] code (CONF:3343-28499).
   1. This code SHALL contain exactly one [1..1] @code="29308-4" diagnosis (CONF:3343-28505).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28506).
   3. This code SHALL contain exactly one [1..1] translation (CONF:3343-28886).
      1. This translation SHALL contain exactly one [1..1] @code="282291009" 2.16.840.1.113883.6.96 (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-28888).
7. MAY contain zero or one [0..1] targetSiteCode (CONF:3343-28501).  
   Note: QDM Attribute: Anatomical Location Site - the location where the diagnosis/problem manifests itself
8. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28889).  
   Note: QDM Attribute: Author dateTime - time the diagnosis is entered into the clinical software
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28497) such that it  
   Note: QDM Attribute: Severity
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28507).
   2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:3343-28502).
10. This template *SHALL* be contained by a Diagnosis Concern Act (V3) (CONF:3343-28885).

Figure 121: Diagnosis (V2) Example

<!-- Must be contained in the Diagnosis Concern Act (V2) template to represent the Diagnosis QDM data type -->

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Problem Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>

<!-- Diagnosis (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.135" extension="2017-08-01"/>

<id root="e5d9e01e-d778-40ba-9bd0-351d0222b26c"/>

<code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<translation code="282291009" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

</code>

<statusCode code="completed"/>

<effectiveTime>

<!-- Onset Datetime -->

<low value="20170101090000+0500"/>

<!-- Abatement Datetime -->

<high value="20170801090000+0500"/>

</effectiveTime>

<value xsi:type="CD" code="25907005" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED-CT" displayName="Diabetic gangrene (disorder)"/>

<!-- QDM Attribute Anatomical Location Site -->

<targetSiteCode code="56459004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="foot"/>

...

</observation>

Symptom (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 211: Symptom (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Symptom Concern Act (V3)](#E_Symptom_Concern_Act_V3) (required) | [Severity Observation (V2)](#E_Severity_Observation_V2) (optional) |

This template represents the QDM datatype: Symptom. This template must be contained by a Symptom Concern Act template.  
Symptom represents an indication that a person has a condition or disease. Some examples are headache, fever, fatigue, nausea, vomiting, and pain. Also, symptoms are subjective manifestations of the disease perceived by the patient. As an example to differentiate symptom from finding, the patient’s subjective symptom of fever is distinguished from the temperature (a finding). For a finding, there is either a source of either a temperature-measuring device together with a recorder of the device (electronically) or an individual (healthcare provider, patient, etc.).

An active symptom is a patient’s reported perception of departure from normal functioning that is present at the time indicated. A resolved symptom is a symptom that has been present in the past and is currently not expected to recur. The Observation/Code is constrained to "Symptom" and an effectiveTime/low is required.  
QDM Attribute: Prevalence Period references the time from the onset date (effectiveTime/low) to the abatement date (effectiveTime/high). If effectiveTime/high is null, then the symptom is considered to still be active.

Table 212: Symptom (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28524](#C_3343-28524) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28525](#C_3343-28525) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28526](#C_3343-28526) |  |
| templateId | 1..1 | SHALL |  | [3343-28514](#C_3343-28514) |  |
| @root | 1..1 | SHALL |  | [3343-28518](#C_3343-28518) | 2.16.840.1.113883.10.20.24.3.136 |
| @extension | 1..1 | SHALL |  | [3343-28855](#C_3343-28855) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28515](#C_3343-28515) |  |
| @code | 1..1 | SHALL |  | [3343-28520](#C_3343-28520) | 75325-1 |
| @codeSystem | 1..1 | SHALL |  | [3343-28521](#C_3343-28521) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| effectiveTime | 1..1 | SHALL |  | [3343-28854](#C_3343-28854) |  |
| low | 1..1 | SHALL |  | [3343-28856](#C_3343-28856) |  |
| high | 0..1 | MAY |  | [3343-28857](#C_3343-28857) |  |
| value | 1..1 | SHALL | CD | [3343-28516](#C_3343-28516) |  |
| entryRelationship | 0..1 | MAY |  | [3343-28513](#C_3343-28513) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28522](#C_3343-28522) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-28517](#C_3343-28517) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09](#E_Severity_Observation_V2) |

1. Conforms to [Problem Observation (V3)](#E_Problem_Observation_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28524).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28525).
4. SHALL NOT contain [0..0] @negationInd (CONF:3343-28526).
5. SHALL contain exactly one [1..1] templateId (CONF:3343-28514) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.136" (CONF:3343-28518).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28855).
6. SHALL contain exactly one [1..1] code (CONF:3343-28515).
   1. This code SHALL contain exactly one [1..1] @code="75325-1" Symptom (CONF:3343-28520).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28521).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28854).  
   Note: QDM Attribute: Prevalence Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-28856).  
      Note: Onset dateTime
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-28857).  
      Note: Abatement dateTime
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-28516).  
   Note: QDM Attribute: Code
9. MAY contain zero or one [0..1] entryRelationship (CONF:3343-28513) such that it  
   Note: QDM Attribute: Severity
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28522).
   2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:3343-28517).
10. This template *SHALL* be contained by a Symptom Concern Act (V3) (CONF:3343-28667).

Figure 122: Symptom (V2) Example

<!-- Must be contained in the Symptom Concern Act to represent Symptom QDM data type -->

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Problem Observation (V3) template -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>

<!-- Symptom (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.136" extension="2017-08-01"/>

<id root="e5d9e01e-d778-40ba-9bd0-351d0222b299"/>

<code code="75325-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Symptom">

<translation code="418799008" displayName="Symptom" codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96"/>

</code>

<statusCode code="completed"/>

<effectiveTime>

<!-- Onset Datetime -->

<low value="201704041129"/>

<!-- Abatement Datetime -->

<high value="201704081129"/>

</effectiveTime>

<value xsi:type="CD" code="233604007" codeSystem="2.16.840.1.113883.6.96" displayName="Shortness of breath"/>

<!-- QDM Attribute: Severity -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09"/>

<code code="SEV" displayName="Severity Observation"

codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="371924009" displayName="Moderate to severe" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

</observation>

</entryRelationship>

</observation>

Problem Status

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.6 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 213: Problem Status Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Problem Observation (V3)](#E_Problem_Observation_V3) (optional) |  |

The Problem Status records whether the indicated problem is active, inactive, or resolved.

Table 214: Problem Status Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.6) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7357](#C_81-7357) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [81-7358](#C_81-7358) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [81-7359](#C_81-7359) |  |
| @root | 1..1 | SHALL |  | [81-10518](#C_81-10518) | 2.16.840.1.113883.10.20.22.4.6 |
| code | 1..1 | SHALL |  | [81-19162](#C_81-19162) |  |
| @code | 1..1 | SHALL |  | [81-19163](#C_81-19163) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 33999-4 |
| text | 0..1 | SHOULD |  | [81-7362](#C_81-7362) |  |
| reference | 0..1 | SHOULD |  | [81-15593](#C_81-15593) |  |
| @value | 1..1 | SHALL |  | [81-15594](#C_81-15594) |  |
| statusCode | 1..1 | SHALL |  | [81-7364](#C_81-7364) |  |
| @code | 1..1 | SHALL |  | [81-19113](#C_81-19113) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [81-7365](#C_81-7365) | urn:oid:2.16.840.1.113883.3.88.12.80.68 (Problem Status) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-7357).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-7358).
3. SHALL contain exactly one [1..1] templateId (CONF:81-7359) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.6" (CONF:81-10518).
4. SHALL contain exactly one [1..1] code (CONF:81-19162).
   1. This code SHALL contain exactly one [1..1] @code="33999-4" Status (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:81-19163).
5. SHOULD contain zero or one [0..1] text (CONF:81-7362).
   1. The text, if present, SHOULD contain zero or one [0..1] reference (CONF:81-15593).
      1. The reference, if present, SHALL contain exactly one [1..1] @value (CONF:81-15594).
         1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-15595).
6. SHALL contain exactly one [1..1] statusCode (CONF:81-7364).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-19113).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Problem Status urn:oid:2.16.840.1.113883.3.88.12.80.68 DYNAMIC (CONF:81-7365).

Figure 123: Problem Status Example

<observation classCode="OBS" moodCode="EVN">

<!-- Status observation template -->

<templateId root="2.16.840.1.113883.10.20.22.4.6"/>

<code code="33999-4"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Status"/>

<text>

<reference value="#STAT1"/>

</text>

<statusCode code="completed"/>

<value xsi:type="CD"

code="55561003"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Active"/>

</observation>

Procedure Activity Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09 (open)]

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Table 215: Procedure Activity Act (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Service Delivery Location](#E_Service_Delivery_Location) (optional)  [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional) |

This template represents any act that cannot be classified as an observation or procedure according to the HL7 RIM. Examples of these acts are a dressing change, teaching or feeding a patient, or providing comfort measures.  
The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

Table 216: Procedure Activity Act (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8289](#C_1098-8289) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-8290](#C_1098-8290) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-8291](#C_1098-8291) |  |
| @root | 1..1 | SHALL |  | [1098-10519](#C_1098-10519) | 2.16.840.1.113883.10.20.22.4.12 |
| @extension | 1..1 | SHALL |  | [1098-32505](#C_1098-32505) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8292](#C_1098-8292) |  |
| code | 1..1 | SHALL |  | [1098-8293](#C_1098-8293) |  |
| originalText | 0..1 | SHOULD |  | [1098-19186](#C_1098-19186) |  |
| reference | 0..1 | MAY |  | [1098-19187](#C_1098-19187) |  |
| @value | 0..1 | MAY |  | [1098-19188](#C_1098-19188) |  |
| statusCode | 1..1 | SHALL |  | [1098-8298](#C_1098-8298) |  |
| @code | 1..1 | SHALL |  | [1098-32364](#C_1098-32364) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [1098-8299](#C_1098-8299) |  |
| priorityCode | 0..1 | MAY |  | [1098-8300](#C_1098-8300) | urn:oid:2.16.840.1.113883.1.11.16866 (Act Priority) |
| performer | 0..\* | SHOULD |  | [1098-8301](#C_1098-8301) |  |
| assignedEntity | 1..1 | SHALL |  | [1098-8302](#C_1098-8302) |  |
| id | 1..\* | SHALL |  | [1098-8303](#C_1098-8303) |  |
| addr | 1..\* | SHALL |  | [1098-8304](#C_1098-8304) |  |
| telecom | 1..\* | SHALL |  | [1098-8305](#C_1098-8305) |  |
| representedOrganization | 0..1 | SHOULD |  | [1098-8306](#C_1098-8306) |  |
| id | 0..\* | SHOULD |  | [1098-8307](#C_1098-8307) |  |
| name | 0..\* | MAY |  | [1098-8308](#C_1098-8308) |  |
| telecom | 1..\* | SHALL |  | [1098-8310](#C_1098-8310) |  |
| addr | 1..\* | SHALL |  | [1098-8309](#C_1098-8309) |  |
| author | 0..\* | SHOULD |  | [1098-32477](#C_1098-32477) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-8311](#C_1098-8311) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8312](#C_1098-8312) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1098-15599](#C_1098-15599) | [Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32](#E_Service_Delivery_Location) |
| entryRelationship | 0..\* | MAY |  | [1098-8314](#C_1098-8314) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8315](#C_1098-8315) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [1098-8316](#C_1098-8316) | true |
| encounter | 1..1 | SHALL |  | [1098-8317](#C_1098-8317) |  |
| @classCode | 1..1 | SHALL |  | [1098-8318](#C_1098-8318) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1098-8319](#C_1098-8319) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [1098-8320](#C_1098-8320) |  |
| entryRelationship | 0..1 | MAY |  | [1098-8322](#C_1098-8322) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8323](#C_1098-8323) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-8324](#C_1098-8324) | true |
| act | 1..1 | SHALL |  | [1098-31396](#C_1098-31396) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-8326](#C_1098-8326) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8327](#C_1098-8327) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-15601](#C_1098-15601) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-8329](#C_1098-8329) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8330](#C_1098-8330) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [1098-15602](#C_1098-15602) | [Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09](#Medication_Activity_V2) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8289).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-8290).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-8291) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.12" (CONF:1098-10519).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32505).
4. SHALL contain at least one [1..\*] id (CONF:1098-8292).
5. SHALL contain exactly one [1..1] code (CONF:1098-8293).
   1. This code SHOULD contain zero or one [0..1] originalText (CONF:1098-19186).
      1. The originalText, if present, MAY contain zero or one [0..1] reference (CONF:1098-19187).
         1. The reference, if present, MAY contain zero or one [0..1] @value (CONF:1098-19188).
            1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19189).
   2. This @code SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and MAY be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19190).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-8298).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 STATIC 2014-04-23 (CONF:1098-32364).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-8299).
8. MAY contain zero or one [0..1] priorityCode, which SHALL be selected from ValueSet Act Priority urn:oid:2.16.840.1.113883.1.11.16866 DYNAMIC (CONF:1098-8300).
9. SHOULD contain zero or more [0..\*] performer (CONF:1098-8301).
   1. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1098-8302).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1098-8303).
      2. This assignedEntity SHALL contain at least one [1..\*] addr (CONF:1098-8304).
      3. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1098-8305).
      4. This assignedEntity SHOULD contain zero or one [0..1] representedOrganization (CONF:1098-8306).
         1. The representedOrganization, if present, SHOULD contain zero or more [0..\*] id (CONF:1098-8307).
         2. The representedOrganization, if present, MAY contain zero or more [0..\*] name (CONF:1098-8308).
         3. The representedOrganization, if present, SHALL contain at least one [1..\*] telecom (CONF:1098-8310).
         4. The representedOrganization, if present, SHALL contain at least one [1..\*] addr (CONF:1098-8309).
10. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32477).
11. MAY contain zero or more [0..\*] participant (CONF:1098-8311) such that it
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-8312).
    2. SHALL contain exactly one [1..1] [Service Delivery Location](#E_Service_Delivery_Location) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15599).
12. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8314) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8315).
    2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8316).
    3. SHALL contain exactly one [1..1] encounter (CONF:1098-8317).
       1. This encounter SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8318).
       2. This encounter SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-8319).
       3. This encounter SHALL contain exactly one [1..1] id (CONF:1098-8320).
          1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16849).
13. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8322) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8323).
    2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8324).
    3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31396).
14. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8326) such that it
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8327).
    2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15601).
15. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8329) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8330).
    2. SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15602).

Figure 124: Procedure Activity Act Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09" />

<id root="1.2.3.4.5.6.7.8" extension="1234567" />

<code code="274025005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Colonic polypectomy">

<originalText>

<reference value="#Proc1" />

</originalText>

</code>

<statusCode code="completed" />

<effectiveTime value="20110203" />

<priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority" displayName="Callback results" />

<performer>

<assignedEntity>

<id root="2.16.840.1.113883.19" extension="1234" />

<addr>

<streetAddressLine>1001 Village Avenue</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel: +1(555)-555-5000" />

<representedOrganization>

<id root="2.16.840.1.113883.19.5" />

<name>Community Health and Hospitals</name>

<telecom use="WP" value="tel:+1(555)-555-5000" />

<addr>

<streetAddressLine>1001 Village Avenue</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<templateId root="2.16.840.1.113883.10.20.22.4.32" />

. . .

</participantRole>

</participant>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

. . .

</observation>

</entryRelationship>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

. . .

</act>

</entryRelationship>

</act>

Intervention Performed (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 217: Intervention Performed (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Status](#E_Status) (optional)  [Result Observation (V3)](#E_Result_Observation_V3) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Intervention, Performed.  
This template indicates that an intervention has been completed. An intervention is an influencing force or act to modify a given state of affairs. An intervention is any action carried out (by a healthcare provider or a consumer) to improve or maintain the health of a subject of care with the expectation of producing an outcome. MoodCode is constrained to "EVN".  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 218: Intervention Performed (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27354](#C_3343-27354) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3343-13590](#C_3343-13590) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28072](#C_3343-28072) |  |
| templateId | 1..1 | SHALL |  | [3343-13591](#C_3343-13591) |  |
| @root | 1..1 | SHALL |  | [3343-13592](#C_3343-13592) | 2.16.840.1.113883.10.20.24.3.32 |
| @extension | 1..1 | SHALL |  | [3343-27144](#C_3343-27144) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27633](#C_3343-27633) |  |
| statusCode | 1..1 | SHALL |  | [3343-27362](#C_3343-27362) |  |
| @code | 1..1 | SHALL |  | [3343-27363](#C_3343-27363) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-13611](#C_3343-13611) |  |
| low | 1..1 | SHALL |  | [3343-13612](#C_3343-13612) |  |
| high | 0..1 | MAY |  | [3343-13613](#C_3343-13613) |  |
| author | 0..1 | MAY |  | [3343-29162](#C_3343-29162) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-13604](#C_3343-13604) |  |
| @typeCode | 1..1 | SHALL |  | [3343-13605](#C_3343-13605) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27143](#C_3343-27143) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..1 | MAY |  | [3343-27356](#C_3343-27356) |  |
| @typeCode | 1..1 | SHALL |  | [3343-27357](#C_3343-27357) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-27358](#C_3343-27358) | [Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01](#E_Result_Observation_V3) |
| entryRelationship | 0..1 | MAY |  | [3343-27359](#C_3343-27359) |  |
| @typeCode | 1..1 | SHALL |  | [3343-27360](#C_3343-27360) | REFR |
| observation | 1..1 | SHALL |  | [3343-27361](#C_3343-27361) | [Status (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93](#E_Status) |

1. Conforms to [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27354).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-13590).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28072).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-13591) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.32" (CONF:3343-13592).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27144).
6. SHALL contain exactly one [1..1] code (CONF:3343-27633).
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-27362).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-27363).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-13611).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-13612).  
      Note: Start dateTime - the time the intervention begins
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-13613).  
      Note: Stop dateTime – the time the intervention ends
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-29162).  
   Note: QDM Attribute: Author dateTime
10. MAY contain zero or one [0..1] entryRelationship (CONF:3343-13604) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-13605).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27143).
11. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27356) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-27357).
    2. SHALL contain exactly one [1..1] [Result Observation (V3)](#E_Result_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:3343-27358).
12. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27359) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CONF:3343-27360).
    2. SHALL contain exactly one [1..1] [Status](#E_Status) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93) (CONF:3343-27361).

Figure 125: Intervention Performed (V4) Example

<act classCode="ACT" moodCode="EVN">

<!-- Conforms to C-CDA R2 Procedure Activity Act (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09"/>

<!-- Intervention Performed (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.32" extension="2017-08-01"/>

<id root="db734647-fc99-424c-a864-7e3cda82e703"/>

<code code="225323000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD" displayName="Smoking cessation education (procedure)"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attibute: Relevant Period - Start dateTime -->

<low value="201703011130"/>

<!-- QDM Attibute: Relevant Period - Stop dateTime -->

<high value="201703011330"/>

</effectiveTime>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="160605003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Heavy cigarette smoker (20-39 cigs/day) (finding)"/>

</observation>

</entryRelationship>

<!-- QDM Attribute: Result -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA R2 Result Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01"/>

<id root="ed971e73-c060-4258-8838-69c830254b5a"/>

<code code="225323000" displayName="Smoking cessation education (procedure)" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NI"/>

<value xsi:type="CD" code="394872000" codeSystem="2.16.840.1.113883.6.96" displayName="Ready to stop smoking (finding)" codeSystemName="SNOMED CT"/>

</observation>

</entryRelationship>

</act>

Procedure Activity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09 (open)]

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Table 219: Procedure Activity Observation (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Service Delivery Location](#E_Service_Delivery_Location) (optional)  [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional) |

The common notion of procedure is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures that result in new information about the patient that cannot be classified as a procedure according to the HL7 RIM. Examples of these procedures are diagnostic imaging procedures, EEGs, and EKGs.

Table 220: Procedure Activity Observation (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-8282](#C_1098-8282) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-8237](#C_1098-8237) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-8238](#C_1098-8238) |  |
| @root | 1..1 | SHALL |  | [1098-10520](#C_1098-10520) | 2.16.840.1.113883.10.20.22.4.13 |
| @extension | 1..1 | SHALL |  | [1098-32507](#C_1098-32507) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-8239](#C_1098-8239) |  |
| code | 1..1 | SHALL |  | [1098-19197](#C_1098-19197) |  |
| originalText | 0..1 | SHOULD |  | [1098-19198](#C_1098-19198) |  |
| reference | 0..1 | SHOULD |  | [1098-19199](#C_1098-19199) |  |
| @value | 0..1 | SHOULD |  | [1098-19200](#C_1098-19200) |  |
| statusCode | 1..1 | SHALL |  | [1098-8245](#C_1098-8245) |  |
| @code | 1..1 | SHALL |  | [1098-32365](#C_1098-32365) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 0..1 | SHOULD |  | [1098-8246](#C_1098-8246) |  |
| priorityCode | 0..1 | MAY |  | [1098-8247](#C_1098-8247) | urn:oid:2.16.840.1.113883.1.11.16866 (Act Priority) |
| value | 1..1 | SHALL |  | [1098-16846](#C_1098-16846) |  |
| @nullFlavor | 0..1 | MAY |  | [1098-32778](#C_1098-32778) |  |
| methodCode | 0..1 | MAY |  | [1098-8248](#C_1098-8248) |  |
| targetSiteCode | 0..\* | SHOULD |  | [1098-8250](#C_1098-8250) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| performer | 0..\* | SHOULD |  | [1098-8251](#C_1098-8251) |  |
| assignedEntity | 1..1 | SHALL |  | [1098-8252](#C_1098-8252) |  |
| id | 1..\* | SHALL |  | [1098-8253](#C_1098-8253) |  |
| addr | 1..\* | SHALL |  | [1098-8254](#C_1098-8254) |  |
| telecom | 1..\* | SHALL |  | [1098-8255](#C_1098-8255) |  |
| representedOrganization | 0..1 | SHOULD |  | [1098-8256](#C_1098-8256) |  |
| id | 0..\* | SHOULD |  | [1098-8257](#C_1098-8257) |  |
| name | 0..\* | MAY |  | [1098-8258](#C_1098-8258) |  |
| telecom | 1..1 | SHALL |  | [1098-8260](#C_1098-8260) |  |
| addr | 1..1 | SHALL |  | [1098-8259](#C_1098-8259) |  |
| author | 0..\* | SHOULD |  | [1098-32478](#C_1098-32478) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-8261](#C_1098-8261) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8262](#C_1098-8262) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1098-15904](#C_1098-15904) | [Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32](#E_Service_Delivery_Location) |
| entryRelationship | 0..\* | MAY |  | [1098-8264](#C_1098-8264) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8265](#C_1098-8265) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [1098-8266](#C_1098-8266) | true |
| encounter | 1..1 | SHALL |  | [1098-8267](#C_1098-8267) |  |
| @classCode | 1..1 | SHALL |  | [1098-8268](#C_1098-8268) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1098-8269](#C_1098-8269) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [1098-8270](#C_1098-8270) |  |
| entryRelationship | 0..1 | MAY |  | [1098-8272](#C_1098-8272) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8273](#C_1098-8273) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-8274](#C_1098-8274) | true |
| act | 1..1 | SHALL |  | [1098-31394](#C_1098-31394) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-8276](#C_1098-8276) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8277](#C_1098-8277) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-15906](#C_1098-15906) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-8279](#C_1098-8279) |  |
| @typeCode | 1..1 | SHALL |  | [1098-8280](#C_1098-8280) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [1098-15907](#C_1098-15907) | [Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09](#Medication_Activity_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32470](#C_1098-32470) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32471](#C_1098-32471) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1098-32472](#C_1098-32472) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8282).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-8237).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-8238) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.13" (CONF:1098-10520).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32507).
4. SHALL contain at least one [1..\*] id (CONF:1098-8239).
5. SHALL contain exactly one [1..1] code (CONF:1098-19197).
   1. This code SHOULD contain zero or one [0..1] originalText (CONF:1098-19198).
      1. The originalText, if present, SHOULD contain zero or one [0..1] reference (CONF:1098-19199).
         1. The reference, if present, SHOULD contain zero or one [0..1] @value (CONF:1098-19200).
            1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19201).
   2. This @code SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and MAY be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19202).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-8245).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 STATIC 2014-04-23 (CONF:1098-32365).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-8246).
8. MAY contain zero or one [0..1] priorityCode, which SHALL be selected from ValueSet Act Priority urn:oid:2.16.840.1.113883.1.11.16866 DYNAMIC (CONF:1098-8247).
9. SHALL contain exactly one [1..1] value (CONF:1098-16846).

If nothing is appropriate for value, use an appropriate nullFlavor.

* 1. This value MAY contain zero or one [0..1] @nullFlavor (CONF:1098-32778).

1. MAY contain zero or one [0..1] methodCode (CONF:1098-8248).
   1. MethodCode SHALL NOT conflict with the method inherent in Observation / code (CONF:1098-8249).
2. SHOULD contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-8250).
3. SHOULD contain zero or more [0..\*] performer (CONF:1098-8251).
   1. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1098-8252).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1098-8253).
      2. This assignedEntity SHALL contain at least one [1..\*] addr (CONF:1098-8254).
      3. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1098-8255).
      4. This assignedEntity SHOULD contain zero or one [0..1] representedOrganization (CONF:1098-8256).
         1. The representedOrganization, if present, SHOULD contain zero or more [0..\*] id (CONF:1098-8257).
         2. The representedOrganization, if present, MAY contain zero or more [0..\*] name (CONF:1098-8258).
         3. The representedOrganization, if present, SHALL contain exactly one [1..1] telecom (CONF:1098-8260).
         4. The representedOrganization, if present, SHALL contain exactly one [1..1] addr (CONF:1098-8259).
4. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32478).
5. MAY contain zero or more [0..\*] participant (CONF:1098-8261) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-8262).
   2. SHALL contain exactly one [1..1] [Service Delivery Location](#E_Service_Delivery_Location) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15904).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8264) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8265).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8266).
   3. SHALL contain exactly one [1..1] encounter (CONF:1098-8267).
      1. This encounter SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-8268).
      2. This encounter SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-8269).
      3. This encounter SHALL contain exactly one [1..1] id (CONF:1098-8270).
         1. Set encounter/id to the id of an encounter in another section to signify they are the same encounter (CONF:1098-16847).
7. MAY contain zero or one [0..1] entryRelationship (CONF:1098-8272) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8273).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8274).
   3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31394).
8. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8276) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8277).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15906).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-8279) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-8280).
   2. SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15907).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32470) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32471).
    2. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32472).

Figure 126: Procedure Activity Observation (V2) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09" />

<id extension="123456789" root="2.16.840.1.113883.19" />

<code code="274025005"

codeSystem="2.16.840.1.113883.6.96"

displayName="Colonic polypectomy"

codeSystemName="SNOMED-CT">

<originalText>

<reference value="#Proc1" />

</originalText>

</code>

<statusCode code="aborted" />

<effectiveTime value="20110203" />

<priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority" displayName="Callback results" />

<value nullFlavor="NA" />

<methodCode nullFlavor="UNK" />

<targetSiteCode code="416949008" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Abdomen and pelvis" />

<performer>

<assignedEntity>

<id root="2.16.840.1.113883.19" extension="1234" />

<addr>

<streetAddressLine>1001 Village Avenue</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel: +1(555)-555-5000" />

<representedOrganization>

<id root="2.16.840.1.113883.19.5" />

<name>Community Health and Hospitals</name>

<telecom use="WP" value="tel:+1(555)-555-5000" />

<addr>

<streetAddressLine>1001 Village Avenue</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<templateId root="2.16.840.1.113883.10.20.22.4.32" />

. . .

</participantRole>

</participant>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

. . .

</observation>

</entryRelationship>

<entryRelationship typeCode="SUBJ" inversionInd="true">

<act classCode="ACT" moodCode="INT">

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

. . .

</act>

</entryRelationship>

</observation>

Diagnostic Study Performed (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01 (open)]

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Table 221: Diagnostic Study Performed (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Status](#E_Status) (optional)  [Result Observation (V3)](#E_Result_Observation_V3) (optional)  [Facility Location (V2)](#SE_Facility_Location_V2) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Component](#E_Component) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Diagnostic Study, Performed.  
This template indicates that a diagnostic study has been completed. Diagnostic Study represents any kind of medical test performed as a specific test or series of steps to aid in diagnosing or detecting disease (e.g., to establish a diagnosis, measure the progress or recovery from disease, confirm that a person is free from disease). The QDM defines diagnostic studies as those that are not performed in organizations that perform testing on samples of human blood, tissue, or other substance from the body. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 222: Diagnostic Study Performed (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27369](#C_3343-27369) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12950](#C_3343-12950) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28063](#C_3343-28063) |  |
| templateId | 1..1 | SHALL |  | [3343-12951](#C_3343-12951) |  |
| @root | 1..1 | SHALL |  | [3343-12952](#C_3343-12952) | 2.16.840.1.113883.10.20.24.3.18 |
| @extension | 1..1 | SHALL |  | [3343-27141](#C_3343-27141) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27617](#C_3343-27617) |  |
| statusCode | 1..1 | SHALL |  | [3343-12956](#C_3343-12956) |  |
| @code | 1..1 | SHALL |  | [3343-12957](#C_3343-12957) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-12958](#C_3343-12958) |  |
| low | 1..1 | SHALL |  | [3343-12959](#C_3343-12959) |  |
| high | 1..1 | SHALL |  | [3343-12960](#C_3343-12960) |  |
| value | 1..1 | SHALL |  | [3343-29135](#C_3343-29135) |  |
| @nullFlavor | 1..1 | SHALL |  | [3343-29139](#C_3343-29139) | NA |
| author | 0..1 | MAY |  | [3343-28873](#C_3343-28873) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [3343-13031](#C_3343-13031) | [Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01](#SE_Facility_Location_V2) |
| entryRelationship | 0..1 | MAY |  | [3343-12963](#C_3343-12963) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12964](#C_3343-12964) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27140](#C_3343-27140) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..1 | MAY |  | [3343-27368](#C_3343-27368) |  |
| @typeCode | 1..1 | SHALL |  | [3343-27370](#C_3343-27370) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-27371](#C_3343-27371) | [Status (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93](#E_Status) |
| entryRelationship | 0..1 | MAY |  | [3343-27746](#C_3343-27746) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28139](#C_3343-28139) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [3343-27747](#C_3343-27747) | [Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01](#E_Result_Observation_V3) |
| entryRelationship | 0..\* | MAY |  | [3343-28874](#C_3343-28874) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28875](#C_3343-28875) | REFR |
| observation | 1..1 | SHALL |  | [3343-28876](#C_3343-28876) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01](#E_Component) |

1. Conforms to [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27369).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12950).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28063).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-12951) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.18" (CONF:3343-12952).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27141).
6. SHALL contain exactly one [1..1] code (CONF:3343-27617).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-12956).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-12957).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-12958).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-12959).  
      Note: startTime - when the diagnostic study is initiated
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:3343-12960).  
      Note: stopTime – when the diagnostic study is completed
9. SHALL contain exactly one [1..1] value (CONF:3343-29135).  
   Note: Use Result Observation (V3) to represent Result and/or Result dateTime
   1. This value SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3343-29139).
10. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28873).  
    Note: QDM Attribute: Author dateTime
11. MAY contain zero or one [0..1] [Facility Location (V2)](#SE_Facility_Location_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:3343-13031).  
    Note: QDM Attribute: Facility Location
12. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12963) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12964).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27140).
13. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27368) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-27370).
    2. SHALL contain exactly one [1..1] [Status](#E_Status) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93) (CONF:3343-27371).
14. MAY contain zero or one [0..1] entryRelationship (CONF:3343-27746) such that it  
    Note: QDM Attribute: Result, QDM Attribute: Result dateTime
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-28139).
    2. SHALL contain exactly one [1..1] [Result Observation (V3)](#E_Result_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:3343-27747).
15. MAY contain zero or more [0..\*] entryRelationship (CONF:3343-28874) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to  (CONF:3343-28875).
    2. SHALL contain exactly one [1..1] [Component](#E_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:3343-28876).

Figure 127: Diagnostic Study Performed (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Procedure Activity Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09"/>

<!-- Diagnostic Study Performed (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.18" extension="2017-08-01"/>

<id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>

<code code="24605-8" codeSystem="2.16.840.1.113883.6.1"

displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>

<text>Diagnostic Study, Performed: Breast Mammogram Diagnostic</text>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - Start dateTime -->

<low value="20170329090000+0500"/>

<!-- QDM Attribute: Relevant Period - Stop dateTime -->

<high value="20170329103000+0500"/>

</effectiveTime>

<!-- QDM Attribute: Result -->

<value xsi:type="CD" nullFlavor="NA"/>

<!-- QDM Attribute: Method -->

<methodCode code="24623002" codeSystem="2.16.840.1.113883.6.96"

displayName="Screening mammography" codeSystemName="SNOMED CT"/>

<!-- QDM Attribute: Facility Location -->

<participant typeCode="LOC">

<!-- Facility Location (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2018-07-01"/>

<time>

<low value="20170329"/>

</time>

<participantRole classCode="SDLOC">

<code code="309905000" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Adult Intensive Care Unit"/>

<addr>

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:(555)555-1003"/>

<playingEntity classCode="PLC">

<name>Good Health Clinic</name>

</playingEntity>

</participantRole>

</participant>

</observation>

Physical Exam Performed (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 223: Physical Exam Performed (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Component](#E_Component) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Physical Exam, Performed.  
A physical exam has been completed. A time/date stamp is required, moodCode has been constrained to "EVN" and statusCode has been constrained to “completed”. If there is a result, it is recorded in value.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 224: Physical Exam Performed (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27559](#C_3343-27559) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12643](#C_3343-12643) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [3343-28093](#C_3343-28093) |  |
| templateId | 1..1 | SHALL |  | [3343-12644](#C_3343-12644) |  |
| @root | 1..1 | SHALL |  | [3343-12645](#C_3343-12645) | 2.16.840.1.113883.10.20.24.3.59 |
| @extension | 1..1 | SHALL |  | [3343-27135](#C_3343-27135) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-27651](#C_3343-27651) |  |
| statusCode | 1..1 | SHALL |  | [3343-12649](#C_3343-12649) |  |
| @code | 1..1 | SHALL |  | [3343-12650](#C_3343-12650) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3343-12651](#C_3343-12651) |  |
| low | 1..1 | SHALL |  | [3343-12652](#C_3343-12652) |  |
| high | 1..1 | SHALL |  | [3343-12653](#C_3343-12653) |  |
| author | 0..1 | MAY |  | [3343-29164](#C_3343-29164) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [3343-12656](#C_3343-12656) |  |
| @typeCode | 1..1 | SHALL |  | [3343-12657](#C_3343-12657) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [3343-27134](#C_3343-27134) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..\* | MAY |  | [3343-28933](#C_3343-28933) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28934](#C_3343-28934) | REFR |
| observation | 1..1 | SHALL |  | [3343-28935](#C_3343-28935) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01](#E_Component) |

1. Conforms to [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27559).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12643).
4. MAY contain zero or one [0..1] @negationInd (CONF:3343-28093).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:3343-12644) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.59" (CONF:3343-12645).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27135).
6. SHALL contain exactly one [1..1] code (CONF:3343-27651).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode (CONF:3343-12649).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-12650).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-12651).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-12652).  
      Note: startTime - the time the physical examination activity begins
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:3343-12653).  
      Note: stopTime – the time the physical examination activity ends
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-29164).  
   Note: QDM attribute: Author dateTime
10. MAY contain zero or one [0..1] entryRelationship (CONF:3343-12656) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12657).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-27134).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:3343-28933) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CONF:3343-28934).
    2. SHALL contain exactly one [1..1] [Component](#E_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:3343-28935).

Figure 128: Physical Exam Performed (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2 Procedure Activity Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09"/>

<!-- Physical Exam Performed (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.59" extension="2017-08-01"/>

<id extension="123456789" root="2.16.840.1.113883.19"/>

<!-- Physical Exam -->

<code xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"

displayName="Body weight" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - start Datetime -->

<low value="20170329090000+0500"/>

<!-- QDM Attribute: Relevant Period - start Datetime -->

<high value="20170329103000+0500"/>

</effectiveTime>

<!-- QDM Attribute: Result -->

<value xsi:type="PQ" value="79" unit="kg"/>

<!-- QDM Attribute: Method -->

<methodCode code="8350-1" codeSystem="2.16.840.1.113883.6.1"

displayName="Body weight Measured --with clothes" codeSystemName="LOINC"/>

<!-- QDM Attribute: Reason -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

<code code="77301-0" codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not" codeSystemName="LOINC"/>

<value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>

</observation>

</entryRelationship>

Procedure Activity Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 (open)]

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Table 225: Procedure Activity Procedure (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Reaction Observation (V2)](#Reaction_Observation_V2) (optional) | [Service Delivery Location](#E_Service_Delivery_Location) (optional)  [Product Instance](#E_Product_Instance) (optional)  [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Indication (V2)](#Indication_V2) (optional)  [Instruction (V2)](#Instruction_V2) (optional)  [Author Participation](#U_Author_Participation) (optional) |

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).  
This template represents procedures whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient. Examples of these procedures are an appendectomy, hip replacement, and a creation of a gastrostomy.  
This template can be used with a contained Product Instance template to represent a device in or on a patient. In this case, targetSiteCode is used to record the location of the device in or on the patient's body. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity (V2) template.

Table 226: Procedure Activity Procedure (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7652](#C_1098-7652) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [1098-7653](#C_1098-7653) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-7654](#C_1098-7654) |  |
| @root | 1..1 | SHALL |  | [1098-10521](#C_1098-10521) | 2.16.840.1.113883.10.20.22.4.14 |
| @extension | 1..1 | SHALL |  | [1098-32506](#C_1098-32506) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7655](#C_1098-7655) |  |
| code | 1..1 | SHALL |  | [1098-7656](#C_1098-7656) |  |
| originalText | 0..1 | SHOULD |  | [1098-19203](#C_1098-19203) |  |
| reference | 0..1 | SHOULD |  | [1098-19204](#C_1098-19204) |  |
| @value | 0..1 | SHOULD |  | [1098-19205](#C_1098-19205) |  |
| statusCode | 1..1 | SHALL |  | [1098-7661](#C_1098-7661) |  |
| @code | 1..1 | SHALL |  | [1098-32366](#C_1098-32366) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 0..1 | SHOULD |  | [1098-7662](#C_1098-7662) |  |
| priorityCode | 0..1 | MAY |  | [1098-7668](#C_1098-7668) | urn:oid:2.16.840.1.113883.1.11.16866 (Act Priority) |
| methodCode | 0..1 | MAY |  | [1098-7670](#C_1098-7670) |  |
| targetSiteCode | 0..\* | SHOULD |  | [1098-7683](#C_1098-7683) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site) |
| specimen | 0..\* | MAY |  | [1098-7697](#C_1098-7697) |  |
| specimenRole | 1..1 | SHALL |  | [1098-7704](#C_1098-7704) |  |
| id | 0..\* | SHOULD |  | [1098-7716](#C_1098-7716) |  |
| performer | 0..\* | SHOULD |  | [1098-7718](#C_1098-7718) |  |
| assignedEntity | 1..1 | SHALL |  | [1098-7720](#C_1098-7720) |  |
| id | 1..\* | SHALL |  | [1098-7722](#C_1098-7722) |  |
| addr | 1..\* | SHALL |  | [1098-7731](#C_1098-7731) |  |
| telecom | 1..\* | SHALL |  | [1098-7732](#C_1098-7732) |  |
| representedOrganization | 0..1 | SHOULD |  | [1098-7733](#C_1098-7733) |  |
| id | 0..\* | SHOULD |  | [1098-7734](#C_1098-7734) |  |
| name | 0..\* | MAY |  | [1098-7735](#C_1098-7735) |  |
| telecom | 1..1 | SHALL |  | [1098-7737](#C_1098-7737) |  |
| addr | 1..1 | SHALL |  | [1098-7736](#C_1098-7736) |  |
| author | 0..\* | SHOULD |  | [1098-32479](#C_1098-32479) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | MAY |  | [1098-7751](#C_1098-7751) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7752](#C_1098-7752) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DEV |
| participantRole | 1..1 | SHALL |  | [1098-15911](#C_1098-15911) | [Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37](#E_Product_Instance) |
| participant | 0..\* | MAY |  | [1098-7765](#C_1098-7765) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7766](#C_1098-7766) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1098-15912](#C_1098-15912) | [Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32](#E_Service_Delivery_Location) |
| entryRelationship | 0..\* | MAY |  | [1098-7768](#C_1098-7768) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7769](#C_1098-7769) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [1098-8009](#C_1098-8009) | true |
| encounter | 1..1 | SHALL |  | [1098-7770](#C_1098-7770) |  |
| @classCode | 1..1 | SHALL |  | [1098-7771](#C_1098-7771) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1098-7772](#C_1098-7772) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [1098-7773](#C_1098-7773) |  |
| entryRelationship | 0..1 | MAY |  | [1098-7775](#C_1098-7775) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7776](#C_1098-7776) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-7777](#C_1098-7777) | true |
| act | 1..1 | SHALL |  | [1098-31395](#C_1098-31395) | [Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#Instruction_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-7779](#C_1098-7779) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7780](#C_1098-7780) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1098-15914](#C_1098-15914) | [Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#Indication_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-7886](#C_1098-7886) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7887](#C_1098-7887) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [1098-15915](#C_1098-15915) | [Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09](#Medication_Activity_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-32473](#C_1098-32473) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32474](#C_1098-32474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1098-32475](#C_1098-32475) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7652).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7653).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7654) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:1098-10521).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32506).
4. SHALL contain at least one [1..\*] id (CONF:1098-7655).
5. SHALL contain exactly one [1..1] code (CONF:1098-7656).
   1. This code SHOULD contain zero or one [0..1] originalText (CONF:1098-19203).
      1. The originalText, if present, SHOULD contain zero or one [0..1] reference (CONF:1098-19204).
         1. The reference, if present, SHOULD contain zero or one [0..1] @value (CONF:1098-19205).
            1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19206).
   2. This @code SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and MAY be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19207).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-7661).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 STATIC 2014-04-23 (CONF:1098-32366).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7662).
8. MAY contain zero or one [0..1] priorityCode, which SHALL be selected from ValueSet Act Priority urn:oid:2.16.840.1.113883.1.11.16866 DYNAMIC (CONF:1098-7668).
9. MAY contain zero or one [0..1] methodCode (CONF:1098-7670).
   1. MethodCode SHALL NOT conflict with the method inherent in Procedure / code (CONF:1098-7890).

In the case of an implanted medical device, targetSiteCode is used to record the location of the device, in or on the patient's body.

1. SHOULD contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-7683).
2. MAY contain zero or more [0..\*] specimen (CONF:1098-7697).
   1. The specimen, if present, SHALL contain exactly one [1..1] specimenRole (CONF:1098-7704).
      1. This specimenRole SHOULD contain zero or more [0..\*] id (CONF:1098-7716).
         1. If you want to indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id SHOULD be set to equal an Organizer/specimen/ specimenRole/id (CONF:1098-29744).
   2. This specimen is for representing specimens obtained from a procedure (CONF:1098-16842).
3. SHOULD contain zero or more [0..\*] performer (CONF:1098-7718) such that it
   1. SHALL contain exactly one [1..1] assignedEntity (CONF:1098-7720).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1098-7722).
      2. This assignedEntity SHALL contain at least one [1..\*] addr (CONF:1098-7731).
      3. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:1098-7732).
      4. This assignedEntity SHOULD contain zero or one [0..1] representedOrganization (CONF:1098-7733).
         1. The representedOrganization, if present, SHOULD contain zero or more [0..\*] id (CONF:1098-7734).
         2. The representedOrganization, if present, MAY contain zero or more [0..\*] name (CONF:1098-7735).
         3. The representedOrganization, if present, SHALL contain exactly one [1..1] telecom (CONF:1098-7737).
         4. The representedOrganization, if present, SHALL contain exactly one [1..1] addr (CONF:1098-7736).
4. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32479).
5. MAY contain zero or more [0..\*] participant (CONF:1098-7751) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7752).
   2. SHALL contain exactly one [1..1] [Product Instance](#E_Product_Instance) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-15911).
6. MAY contain zero or more [0..\*] participant (CONF:1098-7765) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-7766).
   2. SHALL contain exactly one [1..1] [Service Delivery Location](#E_Service_Delivery_Location) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15912).
7. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7768) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7769).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8009).
   3. SHALL contain exactly one [1..1] encounter (CONF:1098-7770).
      1. This encounter SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7771).
      2. This encounter SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7772).
      3. This encounter SHALL contain exactly one [1..1] id (CONF:1098-7773).
         1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16843).
8. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7775) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7776).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:1098-7777).
   3. SHALL contain exactly one [1..1] [Instruction (V2)](#Instruction_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31395).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7779) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7780).
   2. SHALL contain exactly one [1..1] [Indication (V2)](#Indication_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15914).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7886) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7887).
    2. SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15915).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32473) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32474).
    2. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32475).

Figure 129: Procedure Activity Procedure (V2) Example

<procedure classCode="PROC" moodCode="EVN">

<!-- Procedure Activity Procedure V2-->

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />

<id root="d5b614bd-01ce-410d-8726-e1fd01dcc72a" />

<code code="103716009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Stent Placement">

<originalText>

<reference value="#Proc1" />

</originalText>

</code>

<statusCode code="completed" />

<effectiveTime value="20130512" />

<targetSiteCode code="28273000" displayName="bile duct" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />

<specimen typeCode="SPC">

<specimenRole classCode="SPEC">

<id root="a6d7b927-2b70-43c7-bdf3-0e7c4133062c" />

<specimenPlayingEntity>

<code code="57259009" codeSystem="2.16.840.1.113883.6.96" displayName="gallbladder bile" />

</specimenPlayingEntity>

</specimenRole>

</specimen>

<performer>

...

</performer>

</procedure>

Device Applied (V5)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 227: Device Applied (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Reason (V3)](#E_Reason_V3) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Device, Applied.  
This datatype indicates that equipment designed to treat, monitor, or diagnose a patient's status is in use (e.g., an antithrombotic device has been placed on the patient's legs to prevent thromboembolism, or a cardiac pacemaker is in place). The statusCode has been constrained to “completed” and there is a participant to represent the device.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 228: Device Applied (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-28050](#C_4388-28050) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4388-28051](#C_4388-28051) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [4388-28052](#C_4388-28052) |  |
| templateId | 1..1 | SHALL |  | [4388-12391](#C_4388-12391) |  |
| @root | 1..1 | SHALL |  | [4388-12392](#C_4388-12392) | 2.16.840.1.113883.10.20.24.3.7 |
| @extension | 1..1 | SHALL |  | [4388-27132](#C_4388-27132) | 2018-10-01 |
| code | 1..1 | SHALL |  | [4388-12414](#C_4388-12414) |  |
| @code | 1..1 | SHALL |  | [4388-12415](#C_4388-12415) | 360030002 |
| @codeSystem | 1..1 | SHALL |  | [4388-27536](#C_4388-27536) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [4388-12394](#C_4388-12394) |  |
| @code | 1..1 | SHALL |  | [4388-29254](#C_4388-29254) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4388-12395](#C_4388-12395) |  |
| low | 1..1 | SHALL |  | [4388-27537](#C_4388-27537) |  |
| high | 0..1 | MAY |  | [4388-27538](#C_4388-27538) |  |
| targetSiteCode | 0..1 | SHOULD |  | [4388-12416](#C_4388-12416) |  |
| author | 0..1 | MAY |  | [4388-28917](#C_4388-28917) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [4388-12396](#C_4388-12396) |  |
| @typeCode | 1..1 | SHALL |  | [4388-12397](#C_4388-12397) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [4388-12398](#C_4388-12398) |  |
| @classCode | 1..1 | SHALL |  | [4388-12399](#C_4388-12399) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4388-12400](#C_4388-12400) |  |
| @classCode | 1..1 | SHALL |  | [4388-12401](#C_4388-12401) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| code | 1..1 | SHALL |  | [4388-12402](#C_4388-12402) |  |
| entryRelationship | 0..1 | MAY |  | [4388-12403](#C_4388-12403) |  |
| @typeCode | 1..1 | SHALL |  | [4388-12404](#C_4388-12404) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-27131](#C_4388-27131) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |

1. Conforms to [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-28050).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-28051).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-28052).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-12391) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.7" (CONF:4388-12392).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-27132).
6. SHALL contain exactly one [1..1] code (CONF:4388-12414).
   1. This code SHALL contain exactly one [1..1] @code="360030002" application of device (CONF:4388-12415).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4388-27536).
7. SHALL contain exactly one [1..1] statusCode (CONF:4388-12394).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4388-29254).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:4388-12395).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4388-27537).  
      Note: startTime - the device is inserted or first used
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4388-27538).  
      Note: Stop dateTime - the device is removed or last used
9. SHOULD contain zero or one [0..1] targetSiteCode (CONF:4388-12416).  
   Note: QDM Attribute: Anatomical Location Site
10. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-28917).
11. SHALL contain exactly one [1..1] participant (CONF:4388-12396) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4388-12397).
    2. SHALL contain exactly one [1..1] participantRole (CONF:4388-12398).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" manufactured product, which SHALL be selected from CodeSystem HL7RoleClass (urn:oid:2.16.840.1.113883.5.110) (CONF:4388-12399).
       2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:4388-12400).
          1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" device, which SHALL be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4388-12401).
          2. This playingDevice SHALL contain exactly one [1..1] code (CONF:4388-12402).  
             Note: QDM Attribute: Code
12. MAY contain zero or one [0..1] entryRelationship (CONF:4388-12403) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" has reason, which SHALL be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-12404).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-27131).

Figure 130: Device Applied (V5) Example

<procedure classCode="PROC" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Procedure Activity Procedure (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>

<!-- Device Applied (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.7" extension="2018-10-01"/>

<id root="20ebe7a7-a493-447d-922b-5d98fa8b96da"/>

<code code="360030002" displayName="application of device" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - Start dateTime -->

<low value="20180101"/>

<!-- QDM Attribute: Relevant Period - Stop dateTime -->

<high value="20180601"/>

</effectiveTime>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice classCode="DEV">

<!-- Device -->

<code code="401608003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>

</playingDevice>

</participantRole>

</participant>

...

</procedure>

Procedure Performed (V5)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5.1, US Realm

Table 229: Procedure Performed (V5) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Incision Datetime](#E_Incision_Datetime) (optional)  [Status](#E_Status) (optional)  [Result Observation (V3)](#E_Result_Observation_V3) (optional)  [Reason (V3)](#E_Reason_V3) (optional)  [Component](#E_Component) (optional)  [Author](#U_Author) (optional) |

This template represents the QDM datatype: Procedure, Performed.  
A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person’s body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Some of these procedures are not reimbursed. Note that procedure is distinct from intervention. MoodCode has been constrained to “EVN”.  
QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Table 230: Procedure Performed (V5) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4388-27308](#C_4388-27308) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4388-11261](#C_4388-11261) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [4388-28098](#C_4388-28098) |  |
| templateId | 1..1 | SHALL |  | [4388-11262](#C_4388-11262) |  |
| @root | 1..1 | SHALL |  | [4388-11263](#C_4388-11263) | 2.16.840.1.113883.10.20.24.3.64 |
| @extension | 1..1 | SHALL |  | [4388-27129](#C_4388-27129) | 2018-10-01 |
| code | 1..1 | SHALL |  | [4388-27309](#C_4388-27309) |  |
| statusCode | 1..1 | SHALL |  | [4388-27305](#C_4388-27305) |  |
| @code | 1..1 | SHALL |  | [4388-27367](#C_4388-27367) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4388-11669](#C_4388-11669) |  |
| low | 1..1 | SHALL |  | [4388-11670](#C_4388-11670) |  |
| high | 1..1 | SHALL |  | [4388-11671](#C_4388-11671) |  |
| targetSiteCode | 0..\* | SHOULD |  | [4388-27312](#C_4388-27312) |  |
| translation | 0..\* | MAY |  | [4388-27765](#C_4388-27765) |  |
| author | 0..1 | MAY |  | [4388-28937](#C_4388-28937) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| entryRelationship | 0..1 | MAY |  | [4388-11371](#C_4388-11371) |  |
| @typeCode | 1..1 | SHALL |  | [4388-11372](#C_4388-11372) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4388-11498](#C_4388-11498) | [Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01](#E_Reason_V3) |
| entryRelationship | 0..1 | MAY |  | [4388-11410](#C_4388-11410) |  |
| @typeCode | 1..1 | SHALL |  | [4388-11500](#C_4388-11500) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| procedure | 1..1 | SHALL |  | [4388-14564](#C_4388-14564) | [Incision Datetime (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89](#E_Incision_Datetime) |
| entryRelationship | 0..1 | MAY |  | [4388-27315](#C_4388-27315) |  |
| @typeCode | 1..1 | SHALL |  | [4388-27316](#C_4388-27316) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4388-27317](#C_4388-27317) | [Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01](#E_Result_Observation_V3) |
| entryRelationship | 0..1 | MAY |  | [4388-27364](#C_4388-27364) |  |
| @typeCode | 1..1 | SHALL |  | [4388-27365](#C_4388-27365) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4388-27366](#C_4388-27366) | [Status (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93](#E_Status) |
| value | 1..1 | SHALL | CD | [4388-28608](#C_4388-28608) |  |
| entryRelationship | 0..\* | MAY |  | [4388-28936](#C_4388-28936) |  |
| @typeCode | 1..1 | SHALL |  | [4388-28938](#C_4388-28938) | REFR |
| observation | 1..1 | SHALL |  | [4388-28939](#C_4388-28939) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01](#E_Component) |

1. Conforms to [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4388-27308).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4388-11261).
4. MAY contain zero or one [0..1] @negationInd (CONF:4388-28098).  
   Note: QDM Attribute: Negation Rationale
5. SHALL contain exactly one [1..1] templateId (CONF:4388-11262) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.64" (CONF:4388-11263).
   2. SHALL contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-27129).
6. SHALL contain exactly one [1..1] code (CONF:4388-27309).  
   Note: QDM Attribute: Code
7. SHALL contain exactly one [1..1] statusCode (CONF:4388-27305).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4388-27367).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:4388-11669).  
   Note: QDM Attribute: Relevant Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4388-11670).  
      Note: startTime – the time the procedure begins
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:4388-11671).  
      Note: stopTime – the time the procedure is completed
9. SHOULD contain zero or more [0..\*] targetSiteCode (CONF:4388-27312).  
   Note: QDM Attribute: Anatomical Location Site
   1. The targetSiteCode, if present, MAY contain zero or more [0..\*] translation (CONF:4388-27765).
10. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:4388-28937).  
    Note: QDM Attribute: Author dateTime
11. MAY contain zero or one [0..1] entryRelationship (CONF:4388-11371) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-11372).
    2. SHALL contain exactly one [1..1] [Reason (V3)](#E_Reason_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4388-11498).
12. MAY contain zero or one [0..1] entryRelationship (CONF:4388-11410) such that it  
    Note: QDM Attribute: Incision Datetime
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-11500).
    2. SHALL contain exactly one [1..1] [Incision Datetime](#E_Incision_Datetime) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89) (CONF:4388-14564).
13. MAY contain zero or one [0..1] entryRelationship (CONF:4388-27315) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-27316).
    2. SHALL contain exactly one [1..1] [Result Observation (V3)](#E_Result_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:4388-27317).
14. MAY contain zero or one [0..1] entryRelationship (CONF:4388-27364) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4388-27365).
    2. SHALL contain exactly one [1..1] [Status](#E_Status) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93) (CONF:4388-27366).
       1. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4388-28608).
15. MAY contain zero or more [0..\*] entryRelationship (CONF:4388-28936) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers tp (CONF:4388-28938).
    2. SHALL contain exactly one [1..1] [Component](#E_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4388-28939).

Figure 131: Procedure Performed (V5) Example

<procedure classCode="PROC" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Procedure Activity Procedure (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>

<!-- Procedure Performed (V5) -->

<templateId root="2.16.840.1.113883.10.20.24.3.64" extension="2018-10-01"/>

<id root="d68b7e32-7810-4f5b-9cc2-acd54b0fd85d"/>

<code code="235326000" displayName="Right hemicolectomy"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<text>Procedure, Performed: Right hemicolectomy </text>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - start dateTime -->

<low value="20180329090000"/>

<!-- QDM Attribute: Relevant Period - stop dateTime -->

<high value="20180329103000"/>

</effectiveTime>

<!-- QDM Attribute: Ordinality -->

<priorityCode code="63161005" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Principal"/>

<!-- QDM Attribute: Method -->

<methodCode code="446223002" codeSystem="2.16.840.1.113883.6.96"

displayName="Hand assisted laparoscopic right colectomy" codeSystemName="SNOMED-CT"/>

<!-- QDM Attribute Anatomical Location Site -->

<targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="colon"/>

<!-- QDM Attribute: Incision Datetime -->

<entryRelationship typeCode="REFR">

<procedure classCode="PROC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.89"/>

<code code="34896006" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="incision"/>

<effectiveTime value="20180329103000"/>

</procedure>

</entryRelationship>

</procedure>

Product Instance

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.37 (open)]

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Table 231: Product Instance Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional) |  |

This clinical statement represents a particular device that was placed in a patient or used as part of a procedure or other act. This provides a record of the identifier and other details about the given product that was used. For example, it is important to have a record that indicates not just that a hip prostheses was placed in a patient but that it was a particular hip prostheses number with a unique identifier.

The FDA Amendments Act specifies the creation of a Unique Device Identification (UDI) System that requires the label of devices to bear a unique identifier that will standardize device identification and identify the device through distribution and use.

The FDA permits an issuing agency to designate that their Device Identifier (DI) + Production Identifier (PI) format qualifies as a UDI through a process of accreditation. Currently, there are three FDA-accredited issuing agencies that are allowed to call their format a UDI. These organizations are GS1, HIBCC, and ICCBBA. For additional information on technical formats that qualify as UDI from each of the issuing agencies see the UDI Appendix.

When communicating only the issuing agency device identifier (i.e., subcomponent of the UDI), the use of the issuing agency OID is appropriate. However, when communicating the unique device identifier (DI + PI), the FDA OID (2.16.840.1.113883.3.3719) must be used.  
When sending a UDI, populate the participantRole/id/@root with the FDA OID (2.16.840.1.113883.3.3719) and participantRole/id/@extension with the UDI.

When sending a DI, populate the participantRole/id/@root with the appropriate assigning agency OID and participantRole/id/@extension with the DI.  
The scopingEntity/id should correspond to FDA or the appropriate issuing agency.

Table 232: Product Instance Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7900](#C_81-7900) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [81-7901](#C_81-7901) |  |
| @root | 1..1 | SHALL |  | [81-10522](#C_81-10522) | 2.16.840.1.113883.10.20.22.4.37 |
| id | 1..\* | SHALL |  | [81-7902](#C_81-7902) |  |
| playingDevice | 1..1 | SHALL |  | [81-7903](#C_81-7903) |  |
| code | 0..1 | SHOULD |  | [81-16837](#C_81-16837) |  |
| scopingEntity | 1..1 | SHALL |  | [81-7905](#C_81-7905) |  |
| id | 1..\* | SHALL |  | [81-7908](#C_81-7908) |  |

1. SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:81-7900).
2. SHALL contain exactly one [1..1] templateId (CONF:81-7901) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.37" (CONF:81-10522).
3. SHALL contain at least one [1..\*] id (CONF:81-7902).
4. SHALL contain exactly one [1..1] playingDevice (CONF:81-7903).
   1. This playingDevice SHOULD contain zero or one [0..1] code (CONF:81-16837).
5. SHALL contain exactly one [1..1] scopingEntity (CONF:81-7905).
   1. This scopingEntity SHALL contain at least one [1..\*] id (CONF:81-7908).

Figure 132: Product Instance Example

<participantRole classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.37"/>

<id root="2.16.840.1.113883.3.3719"

extension="(01)51022222233336(11)141231(17)150707(10)A213B1(21)1234"

assigningAuthorityName="FDA"/>

<playingDevice>

<code code="90412006" codeSystem="2.16.840.1.113883.6.96"

displayName="Colonoscope"/>

</playingDevice>

<scopingEntity>

<id root="2.16.840.1.113883.3.3719"/>

</scopingEntity>

</participantRole>

Prognosis Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.113 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 233: Prognosis Observation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Problem Observation (V3)](#E_Problem_Observation_V3) (optional) |  |

This template represents the patient’s prognosis, which must be associated with a problem observation. It may serve as an alert to scope intervention plans.  
The effectiveTime represents the clinically relevant time of the observation. The observation/value is not constrained and can represent the expected life duration in PQ, an anticipated course of the disease in text, or coded term.

Table 234: Prognosis Observation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-29035](#C_1098-29035) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-29036](#C_1098-29036) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-29037](#C_1098-29037) |  |
| @root | 1..1 | SHALL |  | [1098-29038](#C_1098-29038) | 2.16.840.1.113883.10.20.22.4.113 |
| code | 1..1 | SHALL |  | [1098-29039](#C_1098-29039) |  |
| @code | 1..1 | SHALL |  | [1098-29468](#C_1098-29468) | 75328-5 |
| @codeSystem | 1..1 | SHALL |  | [1098-31349](#C_1098-31349) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [1098-31350](#C_1098-31350) |  |
| @code | 1..1 | SHALL |  | [1098-31351](#C_1098-31351) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1098-31123](#C_1098-31123) |  |
| value | 1..1 | SHALL |  | [1098-29469](#C_1098-29469) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-29035).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-29036).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-29037) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.113" (CONF:1098-29038).
4. SHALL contain exactly one [1..1] code (CONF:1098-29039).
   1. This code SHALL contain exactly one [1..1] @code="75328-5" Prognosis (CONF:1098-29468).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31349).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-31350).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31351).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-31123).
7. SHALL contain exactly one [1..1] value (CONF:1098-29469).

Figure 133: Prognosis, Free Text Example

<observation classCode="OBS" moodCode="EVN">

<!-- Prognosis -->

<templateId root="2.16.840.1.113883.10.20.22.4.113" />

<id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />

<code code="75328-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Prognosis" />

<text>

Presence of a life limiting condition(>50% possibility of death within 2 year)

</text>

<statusCode code="completed" />

<effectiveTime value="20130606" />

<value xsi:type="ST">Presence of a life limiting condition(>50% possibility of death within 2 year</value>

</observation>

Figure 134: Prognosis, Coded Example

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Prognosis -->

<templateId root="2.16.840.1.113883.10.20.22.4.113" />

<id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />

<code code="75328-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Prognosis" />

<statusCode code="completed" />

<effectiveTime>

<low value="20130301" />

</effectiveTime>

<value xsi:type="CD" code="67334001" codeSystem="2.16.840.1.113883.6.96" displayName="guarded prognosis" codeSystemName="SNOMED CT" />

</observation>

</entryRelationship>

Program Participation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 235: Program Participation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) |  |

This template represents the QDM Datatype: Participation.  
Participation represents the type of plan or program in which the patient is expected to be enrolled. The program is identified as the Issuer (e.g., Aetna, BCBSA, Cigna, etc.). The code attribute indicates the coverage type indicating the program in which the subject of record participates (e.g., health insurance plan policy, disease specific policy, health maintenance organization policy, etc.)

Table 236: Program Participation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28974](#C_3343-28974) | OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28975](#C_3343-28975) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28978](#C_3343-28978) |  |
| templateId | 1..1 | SHALL |  | [3343-28965](#C_3343-28965) |  |
| @root | 1..1 | SHALL |  | [3343-28969](#C_3343-28969) | 2.16.840.1.113883.10.20.24.3.154 |
| @extension | 1..1 | SHALL |  | [3343-28970](#C_3343-28970) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-28976](#C_3343-28976) |  |
| code | 1..1 | SHALL |  | [3343-28964](#C_3343-28964) |  |
| @code | 1..1 | SHALL |  | [3343-28967](#C_3343-28967) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28968](#C_3343-28968) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3343-28977](#C_3343-28977) | completed |
| effectiveTime | 1..1 | SHALL |  | [3343-28966](#C_3343-28966) |  |
| low | 1..1 | SHALL |  | [3343-28971](#C_3343-28971) |  |
| high | 0..1 | MAY |  | [3343-28972](#C_3343-28972) |  |
| value | 1..1 | SHALL | CD | [3343-28973](#C_3343-28973) | urn:oid:2.16.840.1.113883.1.11.19832 (HL7ActCoverageType) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-28974).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28975).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28978).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-28965) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.154" (CONF:3343-28969).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28970).
5. SHALL contain at least one [1..\*] id (CONF:3343-28976).
6. SHALL contain exactly one [1..1] code (CONF:3343-28964).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:3343-28967).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28968).
7. SHALL contain exactly one [1..1] statusCode="completed" Completed (CONF:3343-28977).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28966).  
   Note: QDM Attribute: Participation Period
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-28971).  
      Note: enrollmentStartdate – the time the patient enrolled in the program
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-28972).  
      Note: enrollmentEnddate – the time the patient enrollment in the program ends
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (ValueSet: HL7ActCoverageType urn:oid:2.16.840.1.113883.1.11.19832 DYNAMIC) (CONF:3343-28973).

Figure 135: Program Participation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.154" extension="2017-08-01"/>

<id root="94de1700-9629-40b4-b56d-a4eac5f48726"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="201706151030"/>

</effectiveTime>

<value xsi:type="CD" code="MENTPRG" codeSystem="2.16.840.1.113883.5.4" codeSystemName="HL7ActCode" displayName="Mental Health Program"/>

</observation>

Provider Care Experience (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 237: Provider Care Experience (V4) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Author](#U_Author) (required) |

This template represents the QDM datatype Provider Care Experience.  
Provider Care Experience describes information collected from providers about their perception of the care provided.

Table 238: Provider Care Experience (V4) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-12479](#C_3343-12479) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-12480](#C_3343-12480) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28100](#C_3343-28100) |  |
| templateId | 1..1 | SHALL |  | [3343-12481](#C_3343-12481) |  |
| @root | 1..1 | SHALL |  | [3343-12482](#C_3343-12482) | 2.16.840.1.113883.10.20.24.3.67 |
| @extension | 1..1 | SHALL |  | [3343-27293](#C_3343-27293) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-12484](#C_3343-12484) |  |
| code | 1..1 | SHALL |  | [3343-12485](#C_3343-12485) |  |
| @code | 1..1 | SHALL |  | [3343-27562](#C_3343-27562) | 77219-4 |
| @codeSystem | 1..1 | SHALL |  | [3343-27563](#C_3343-27563) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3343-12486](#C_3343-12486) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3343-12572](#C_3343-12572) |  |
| author | 1..1 | SHALL |  | [3343-28941](#C_3343-28941) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |

1. SHALL contain exactly one [1..1] @classCode="OBS" observation, which SHALL be selected from CodeSystem HL7ActClass (urn:oid:2.16.840.1.113883.5.6) (CONF:3343-12479).
2. SHALL contain exactly one [1..1] @moodCode="EVN" event, which SHALL be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12480).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28100).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-12481) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.67" (CONF:3343-12482).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27293).
5. SHALL contain at least one [1..\*] id (CONF:3343-12484).
6. SHALL contain exactly one [1..1] code (CONF:3343-12485).
   1. This code SHALL contain exactly one [1..1] @code="77219-4" Provider satisfaction with healthcare delivery (CONF:3343-27562).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-27563).
7. SHALL contain exactly one [1..1] statusCode="completed", which SHALL be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:3343-12486).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-12572).  
   Note: QDM Attribute: Code
9. SHALL contain exactly one [1..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28941).  
   Note: QDM Attribute: Author dateTime - the time the care experience is recorded

Figure 136: Provider Care Experience (V4) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Care Experience (V4) -->

<templateId root="2.16.840.1.113883.10.20.24.3.67" extension="2017-08-01"/>

<id root="ffa71406-ab33-4325-822e-0f0b1a4ebb6f"/>

<code code="77219-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"

displayName="Provider satisfaction with healthcare delivery"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="445060000"

displayName="Left against medical advice (finding)"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="2017050101030"/>

<assignedAuthor>

<id nullFlavor="NA"/>

</assignedAuthor>

</author>

</observation>

Provider Characteristic Observation Assertion (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 239: Provider Characteristic Observation Assertion (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Author](#U_Author) (optional) |

This template represents the QDM datatype: Provider Characteristic.  
Provider characteristics refer to specific factors about a provider. Included are demographics, behavioral factors, social, or cultural factors, available resources and preferences.  
This is a pattern that can be used for any simple assertion observation of a provider characteristic.

Table 240: Provider Characteristic Observation Assertion (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-27773](#C_3343-27773) | OBS |
| @moodCode | 1..1 | SHALL |  | [3343-27774](#C_3343-27774) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28101](#C_3343-28101) |  |
| templateId | 1..1 | SHALL |  | [3343-27768](#C_3343-27768) |  |
| @root | 1..1 | SHALL |  | [3343-27772](#C_3343-27772) | 2.16.840.1.113883.10.20.24.3.114 |
| @extension | 1..1 | SHALL |  | [3343-27780](#C_3343-27780) | 2017-08-01 |
| id | 1..\* | SHALL |  | [3343-27775](#C_3343-27775) |  |
| code | 1..1 | SHALL |  | [3343-27767](#C_3343-27767) |  |
| @code | 1..1 | SHALL |  | [3343-27771](#C_3343-27771) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28136](#C_3343-28136) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3343-27776](#C_3343-27776) | completed |
| value | 1..1 | SHALL | CD | [3343-27770](#C_3343-27770) |  |
| author | 0..1 | MAY |  | [3343-28952](#C_3343-28952) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 0..1 | MAY |  | [3343-28217](#C_3343-28217) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28219](#C_3343-28219) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND |
| participantRole | 1..1 | SHALL |  | [3343-28218](#C_3343-28218) |  |
| id | 0..\* | SHOULD |  | [3343-28221](#C_3343-28221) |  |
| @root | 0..1 | SHOULD |  | [3343-28222](#C_3343-28222) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | SHOULD |  | [3343-28223](#C_3343-28223) |  |
| code | 0..1 | SHOULD |  | [3343-28220](#C_3343-28220) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-27773).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-27774).
3. SHALL NOT contain [0..0] @negationInd (CONF:3343-28101).
4. SHALL contain exactly one [1..1] templateId (CONF:3343-27768) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.114" (CONF:3343-27772).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27780).
5. SHALL contain at least one [1..\*] id (CONF:3343-27775).
6. SHALL contain exactly one [1..1] code (CONF:3343-27767).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3343-27771).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28136).
7. SHALL contain exactly one [1..1] statusCode="completed" Completed (CONF:3343-27776).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-27770).
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-28952).  
   Note: QDM Attribute: Author dateTime
10. MAY contain zero or one [0..1] participant (CONF:3343-28217).
    1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="IND" individual (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3343-28219).
    2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:3343-28218).

This id/@root coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI).

* + 1. This participantRole SHOULD contain zero or more [0..\*] id (CONF:3343-28221) such that it
       1. SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:3343-28222).
       2. SHOULD contain zero or one [0..1] @extension (CONF:3343-28223).
    2. This participantRole SHOULD contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 (CONF:3343-28220).

Figure 137: Provider Characteristic Observation Assertion (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Characteristic Observation Assertion (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.114" extension="2017-08-01"/>

<id root="94de1700-9629-40b4-b56d-a4eac5f48726"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<!-- Provider Characteristic -->

<value xsi:type="CD" code="2135-2" codeSystem="2.16.840.1.113883.6.238"

codeSystemName="CDCREC" displayName="Hispanic or Latino"/>

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2017-08-01"/>

<time value="201704081130"/>

<assignedAuthor>

<id nullFlavor=”NA”/>

</assignedAuthor>

</author>

<participant typeCode="IND">

<participantRole>

<!-- NPI -->

<id root="2.16.840.1.113883.4.6" extension="123456789"/>

<code code="207QA0505X" displayName="Adult Medicine"

codeSystemName="Healthcare Provider Taxonomy"/>

</participantRole>

</participant>

</observation>

Reaction Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 241: Reaction Observation (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Adverse Event](#E_Adverse_Event_V1) (optional) | [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Severity Observation (V2)](#E_Severity_Observation_V2) (optional) |

This clinical statement represents the response to an undesired symptom, finding, etc. due to administered or exposed substance. A reaction can be defined described with respect to its severity, and can have been treated by one or more interventions.

Table 242: Reaction Observation (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7325](#C_1098-7325) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-7326](#C_1098-7326) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-7323](#C_1098-7323) |  |
| @root | 1..1 | SHALL |  | [1098-10523](#C_1098-10523) | 2.16.840.1.113883.10.20.22.4.9 |
| @extension | 1..1 | SHALL |  | [1098-32504](#C_1098-32504) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-7329](#C_1098-7329) |  |
| code | 1..1 | SHALL |  | [1098-16851](#C_1098-16851) |  |
| @code | 1..1 | SHALL |  | [1098-31124](#C_1098-31124) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1098-32169](#C_1098-32169) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1098-7328](#C_1098-7328) |  |
| @code | 1..1 | SHALL |  | [1098-19114](#C_1098-19114) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [1098-7332](#C_1098-7332) |  |
| low | 0..1 | SHOULD |  | [1098-7333](#C_1098-7333) |  |
| high | 0..1 | SHOULD |  | [1098-7334](#C_1098-7334) |  |
| value | 1..1 | SHALL | CD | [1098-7335](#C_1098-7335) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |
| entryRelationship | 0..\* | MAY |  | [1098-7337](#C_1098-7337) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7338](#C_1098-7338) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| @inversionInd | 1..1 | SHALL |  | [1098-7343](#C_1098-7343) | true |
| procedure | 1..1 | SHALL |  | [1098-15920](#C_1098-15920) | [Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09](#E_Procedure_Activity_Procedure_V2) |
| entryRelationship | 0..\* | MAY |  | [1098-7340](#C_1098-7340) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7341](#C_1098-7341) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| @inversionInd | 1..1 | SHALL |  | [1098-7344](#C_1098-7344) | true |
| substanceAdministration | 1..1 | SHALL |  | [1098-15921](#C_1098-15921) | [Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09](#Medication_Activity_V2) |
| entryRelationship | 0..1 | MAY |  | [1098-7580](#C_1098-7580) |  |
| @typeCode | 1..1 | SHALL |  | [1098-7581](#C_1098-7581) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-10375](#C_1098-10375) | true |
| observation | 1..1 | SHALL |  | [1098-15922](#C_1098-15922) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09](#E_Severity_Observation_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7325).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7326).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7323) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.9" (CONF:1098-10523).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32504).
4. SHALL contain at least one [1..\*] id (CONF:1098-7329).
5. SHALL contain exactly one [1..1] code (CONF:1098-16851).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:1098-31124).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32169).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-7328).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1098-19114).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7332).
   1. The effectiveTime, if present, SHOULD contain zero or one [0..1] low (CONF:1098-7333).
   2. The effectiveTime, if present, SHOULD contain zero or one [0..1] high (CONF:1098-7334).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1098-7335).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7337) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7338).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7343).

This procedure activity is intended to contain information about procedures that were performed in response to an allergy reaction.

* 1. SHALL contain exactly one [1..1] [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-15920).

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7340) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7341).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7344).

This medication activity is intended to contain information about medications that were administered in response to an allergy reaction.

* 1. SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15921).

1. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7580) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7581).
   2. SHALL contain exactly one [1..1] @inversionInd="true" TRUE (CONF:1098-10375).
   3. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-15922).

Figure 138: Reaction Observation (V2) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09" />

<id root="4adc1020-7b14-11db-9fe1-0800200c9a64" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<text>

<reference value="#reaction1" />

</text>

<statusCode code="completed" />

<effectiveTime>

<low value="200802260805-0800" />

<high value="200802281205-0800" />

</effectiveTime>

<value xsi:type="CD" code="422587007" codeSystem="2.16.840.1.113883.6.96" displayName="Nausea" />

<entryRelationship typeCode="SUBJ" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />

. . .

</observation>

</entryRelationship>

</observation>

Reason (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 243: Reason (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Assessment Performed (V2)](#E_Assessment_Performed_V2) (optional)  [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) (optional)  [Encounter Order (V4)](#E_Encounter_Order_V4) (optional)  [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) (optional)  [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) (optional)  [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Device Order (V4)](#E_Device_Order_V4) (optional)  [Device Recommended (V4)](#E_Device_Recommended_V4) (optional)  [Immunization Order (V2)](#E_Immunization_Order_V2) (optional)  [Intervention Performed (V4)](#E_Intervention_Performed_V4) (optional)  [Intervention Recommended (V4)](#E_Intervention_Recommended_V4) (optional)  [Intervention Order (V4)](#E_Intervention_Order_V4) (optional)  [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) (optional)  [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) (optional)  [Patient Characteristic Clinical Trial Participant (V4)](#E_Patient_Characteristic_Clinical_Trial) (optional)  [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) (optional)  [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) (optional)  [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) (optional)  [Substance Recommended (V4)](#E_Substance_Recommended_V4) (optional)  [Immunization Administered (V2)](#E_Immunization_Administered_V2) (optional)  [Medication Administered (V4)](#E_Medication_Administered_V4) (optional)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Communication Performed](#E_Communication_Performed_) (optional)  [Medication Order (V5)](#E_Medication_Order_V5) (optional)  [Procedure Order (V5)](#E_Procedure_Order_V5) (optional)  [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) (optional)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional)  [Assessment Order](#E_Assessment_Order_) (optional)  [Device Applied (V5)](#E_Device_Applied_V5) (optional) |  |

This template represents the QDM attribute: Reason.

This template describes the thought process or justification for an action or for not performing an action. Examples include patient, system, or medical-related reasons for declining to perform specific actions. Note that the parent template that calls this template can be asserted to have occurred or to not have occurred. Therefore, this template simply adds a reason to some other (possibly negated) act. As such, there is nothing in this template that says whether the parent act did or did not occur.

Table 244: Reason (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-11357](#C_3343-11357) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-11358](#C_3343-11358) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-11359](#C_3343-11359) |  |
| @root | 1..1 | SHALL |  | [3343-11360](#C_3343-11360) | 2.16.840.1.113883.10.20.24.3.88 |
| @extension | 1..1 | SHALL |  | [3343-27027](#C_3343-27027) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-11361](#C_3343-11361) |  |
| @code | 1..1 | SHALL |  | [3343-11362](#C_3343-11362) | 77301-0 |
| @codeSystem | 1..1 | SHALL |  | [3343-27028](#C_3343-27028) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| effectiveTime | 0..1 | MAY |  | [3343-11366](#C_3343-11366) |  |
| low | 1..1 | SHALL |  | [3343-27551](#C_3343-27551) |  |
| high | 0..1 | MAY |  | [3343-27552](#C_3343-27552) |  |
| value | 1..1 | SHALL | CD | [3343-11367](#C_3343-11367) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11357).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11358).
3. SHALL contain exactly one [1..1] templateId (CONF:3343-11359) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.88" (CONF:3343-11360).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27027).
4. SHALL contain exactly one [1..1] code (CONF:3343-11361).
   1. This code SHALL contain exactly one [1..1] @code="77301-0" Reason care action performed or not (CONF:3343-11362).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-27028).
5. MAY contain zero or one [0..1] effectiveTime (CONF:3343-11366).
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:3343-27551).
   2. The effectiveTime, if present, MAY contain zero or one [0..1] high (CONF:3343-27552).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-11367).

Figure 139: Reason (V3) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Reason (V3) -->

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01" />

<id root="5750a5bb-6a01-4b99-9b1c-cda56b1dce0c" />

<code code="77301-0"

codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime>

<low value="20170105"/>

</effectiveTime>

<value xsi:type="CD" code="57054005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Acute myocardial infarction" />

</observation>

Reporting Parameters Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.17.3.8 (open)]

Published as part of Neonatal Care Report Release 1

Table 245: Reporting Parameters Act Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Reporting Parameters Section](#S_Reporting_Parameters_Section) (required) |  |

This template provides information about the reporting time interval and context for the patient data being reported to the receiving organization. The receiving organization may tell the reporting hospitals what information to include, such as dates representing the quarters of the year for which data are desired. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

Table 246: Reporting Parameters Act Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8) | | | | | |
| @classCode | 1..1 | SHALL |  | [23-3269](#C_23-3269) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [23-3270](#C_23-3270) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [23-18098](#C_23-18098) |  |
| @root | 1..1 | SHALL |  | [23-18099](#C_23-18099) | 2.16.840.1.113883.10.20.17.3.8 |
| id | 1..\* | SHALL |  | [23-26549](#C_23-26549) |  |
| code | 1..1 | SHALL |  | [23-3272](#C_23-3272) |  |
| @code | 1..1 | SHALL |  | [23-26550](#C_23-26550) | 252116004 |
| @codeSystem | 1..1 | SHALL |  | [23-26551](#C_23-26551) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 1..1 | SHALL |  | [23-3273](#C_23-3273) |  |
| low | 1..1 | SHALL |  | [23-3274](#C_23-3274) |  |
| high | 1..1 | SHALL |  | [23-3275](#C_23-3275) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:23-3269).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:23-3270).
3. SHALL contain exactly one [1..1] templateId (CONF:23-18098) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:23-18099).
4. SHALL contain at least one [1..\*] id (CONF:23-26549).
5. SHALL contain exactly one [1..1] code (CONF:23-3272).
   1. This code SHALL contain exactly one [1..1] @code="252116004" Observation Parameters (CONF:23-26550).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:23-26551).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:23-3273).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:23-3274).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:23-3275).

Figure 140: Reporting Parameters Act Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.17.3.8"/>

<id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>

<code code="252116004"

codeSystem="2.16.840.1.113883.6.96"

displayName="Observation Parameters"/>

<!-- This reporting period/performance period shows that Good Health Clinic is

sending data for the first quarter of the year. The referenced measure definition may be valid for the entire year or more-->

<effectiveTime>

<low value="20190101"/>

<!-- The first day of the period reported. -->

<high value="20191231"/>

<!-- The last day of the period reported. -->

</effectiveTime>

</act>

Reporting Parameters Act - CMS

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01 (open)]

Published as part of CMS 2017 QRDA Category I

Table 247: Reporting Parameters Act - CMS Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Reporting Parameters Section - CMS](#S_Reporting_Parameters_Section_CMS) (required) |  |

This template provides information about the reporting time interval and context for the patient data being reported to the receiving organization. The receiving organization may tell the reporting hospitals what information to include, such as dates representing the quarters of the year for which data are desired. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

Table 248: Reporting Parameters Act - CMS Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01) | | | | | |
| templateId | 1..1 | SHALL |  | [2239-28508](#C_2239-28508) |  |
| @root | 1..1 | SHALL |  | [2239-28513](#C_2239-28513) | 2.16.840.1.113883.10.20.17.3.8.1 |
| @extension | 1..1 | SHALL |  | [2239-28514](#C_2239-28514) | 2016-03-01 |
| effectiveTime | 1..1 | SHALL |  | [2239-28505](#C_2239-28505) |  |
| low | 1..1 | SHALL |  | [2239-28506](#C_2239-28506) |  |
| @value | 1..1 | SHALL |  | [2239-28510](#C_2239-28510) |  |
| high | 1..1 | SHALL |  | [2239-28507](#C_2239-28507) |  |
| @value | 1..1 | SHALL |  | [2239-28512](#C_2239-28512) |  |

1. Conforms to [Reporting Parameters Act](#E_Reporting_Parameters_Act) template (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8).
2. SHALL contain exactly one [1..1] templateId (CONF:CMS\_0044) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8.1" (CONF:CMS\_0045).
   2. SHALL contain exactly one [1..1] @extension="2016-03-01" (CONF:CMS\_0046).

*HQR:* The system SHALL reject QRDA-I R3.1 files if the Reporting Parameter Section Effective Date Range does not align with one of the Program's allowable calendar year discharge quarters.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:23-3273).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:23-3274).
      1. This low SHALL contain exactly one [1..1] @value (CONF:CMS\_0048).
      2. SHALL be precise to day (CONF:CMS\_0027).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:23-3275).
      1. This high SHALL contain exactly one [1..1] @value (CONF:CMS\_0050).
      2. SHALL be precise to day (CONF:CMS\_0028).

Figure 141: Reporting Parameter Section Example for HQR

<section>

<templateId root="2.16.840.1.113883.10.20.17.2.1"/>

<code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>

<title>Reporting Parameters</title>

<text>

...

<list>

<item>Reporting period: 01 Jan 2016 – 31 March 2016

</list>

...

</text>

<entry typeCode="DRIV">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.17.3.8"/>

<code code="252116004" codeSystem="2.16.840.1.113883.6.96"

displayName="Observation Parameters"/>

<effectiveTime>

<low value="20160101"/>

<high value="20160331"/>

</effectiveTime>

</act>

</entry>

</section>

Result Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2.1

Table 249: Result Observation (V3) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Intervention Performed (V4)](#E_Intervention_Performed_V4) (optional)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional) | [Author Participation](#U_Author_Participation) (optional) |

This template represents the results of a laboratory, radiology, or other study performed on a patient.

The result observation includes a statusCode to allow recording the status of an observation. “Pending” results (e.g., a test has been run but results have not been reported yet) should be represented as “active” ActStatus.

Table 250: Result Observation (V3) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1198-7130](#C_1198-7130) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1198-7131](#C_1198-7131) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1198-7136](#C_1198-7136) |  |
| @root | 1..1 | SHALL |  | [1198-9138](#C_1198-9138) | 2.16.840.1.113883.10.20.22.4.2 |
| @extension | 1..1 | SHALL |  | [1198-32575](#C_1198-32575) | 2015-08-01 |
| id | 1..\* | SHALL |  | [1198-7137](#C_1198-7137) |  |
| code | 1..1 | SHALL |  | [1198-7133](#C_1198-7133) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [1198-7134](#C_1198-7134) |  |
| @code | 1..1 | SHALL |  | [1198-14849](#C_1198-14849) | urn:oid:2.16.840.1.113883.11.20.9.39 (Result Status) |
| effectiveTime | 1..1 | SHALL |  | [1198-7140](#C_1198-7140) |  |
| value | 1..1 | SHALL |  | [1198-7143](#C_1198-7143) |  |
| interpretationCode | 0..\* | SHOULD |  | [1198-7147](#C_1198-7147) |  |
| @code | 1..1 | SHALL |  | [1198-32476](#C_1198-32476) | urn:oid:2.16.840.1.113883.1.11.78 (Observation Interpretation (HL7)) |
| methodCode | 0..1 | MAY | SET<CE> | [1198-7148](#C_1198-7148) |  |
| targetSiteCode | 0..1 | MAY | SET<CD> | [1198-7153](#C_1198-7153) |  |
| author | 0..\* | SHOULD |  | [1198-7149](#C_1198-7149) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| referenceRange | 0..\* | SHOULD |  | [1198-7150](#C_1198-7150) |  |
| observationRange | 1..1 | SHALL |  | [1198-7151](#C_1198-7151) |  |
| code | 0..0 | SHALL NOT |  | [1198-7152](#C_1198-7152) |  |
| value | 1..1 | SHALL |  | [1198-32175](#C_1198-32175) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-7130).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-7131).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-7136) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1198-9138).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32575).
4. SHALL contain at least one [1..\*] id (CONF:1198-7137).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-7133).
   1. This code SHOULD be a code from the LOINC that identifies the result observation. If an appropriate LOINC code does not exist, then the local code for this result SHALL be sent (CONF:1198-19212).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-7134).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Result Status urn:oid:2.16.840.1.113883.11.20.9.39 STATIC (CONF:1198-14849).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-7140).  
   Note: Represents the biologically relevant time of the measurement (e.g., the time a blood pressure reading is obtained, the time the blood sample was obtained for a chemistry test).
8. SHALL contain exactly one [1..1] value (CONF:1198-7143).
   1. If Observation/value is a physical quantity (xsi:type="PQ"), the unit of measure SHALL be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1198-31484).
   2. A coded or physical quantity value MAY contain zero or more [0..\*] translations, which can be used to represent the original results as output by the lab (CONF:1198-31866).
   3. If Observation/value is a CD (xsi:type="CD") the value SHOULD be SNOMED-CT (CONF:1198-32610).
9. SHOULD contain zero or more [0..\*] interpretationCode (CONF:1198-7147).
   1. The interpretationCode, if present, SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78 DYNAMIC (CONF:1198-32476).
10. MAY contain zero or one [0..1] methodCode (CONF:1198-7148).
11. MAY contain zero or one [0..1] targetSiteCode (CONF:1198-7153).
12. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-7149).
13. SHOULD contain zero or more [0..\*] referenceRange (CONF:1198-7150).
    1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:1198-7151).
       1. This observationRange SHALL NOT contain [0..0] code (CONF:1198-7152).
       2. This observationRange SHALL contain exactly one [1..1] value (CONF:1198-32175).

Figure 142: Result Observation (V3) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />

<id root="7c0704bb-9c40-41b5-9c7d-26b2d59e234f" />

<code code="20570-8" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime value="200803190830-0800" />

<value xsi:type="PQ" value="35.3" unit="%" />

<interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83" />

<author>

<time value="200803190830-0800" />

<assignedAuthor>

<id extension="333444444" root="1.1.1.1.1.1.1.4" />

<addr>

<streetAddressLine>1017 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1017" />

<assignedPerson>

<name>

<given>William</given>

<given qualifier="CL">Bill</given>

<family>Beaker</family>

</name>

</assignedPerson>

<representedOrganization>

<name>Good Health Laboratory</name>

</representedOrganization>

</assignedAuthor>

</author>

<referenceRange>

<observationRange>

<text>Low</text>

<value xsi:type="IVL\_PQ">

<low value="34.9" unit="%" />

<high value="44.5" unit="%" />

</value>

<interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83"/>

</observationRange>

</referenceRange>

</observation>

Service Delivery Location

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.32 (open)]

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Table 251: Service Delivery Location Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Planned Encounter (V2)](#E_Planned_Encounter_V2) (optional)  [Encounter Activity (V3)](#E_Encounter_Activity_V3) (optional) |  |

This clinical statement represents the location of a service event where an act, observation or procedure took place.

Table 252: Service Delivery Location Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) | | | | | |
| @classCode | 1..1 | SHALL |  | [81-7758](#C_81-7758) | urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = SDLOC |
| templateId | 1..1 | SHALL |  | [81-7635](#C_81-7635) |  |
| @root | 1..1 | SHALL |  | [81-10524](#C_81-10524) | 2.16.840.1.113883.10.20.22.4.32 |
| code | 1..1 | SHALL |  | [81-16850](#C_81-16850) | urn:oid:2.16.840.1.113883.1.11.20275 (HealthcareServiceLocation) |
| addr | 0..\* | SHOULD |  | [81-7760](#C_81-7760) |  |
| telecom | 0..\* | SHOULD |  | [81-7761](#C_81-7761) |  |
| playingEntity | 0..1 | MAY |  | [81-7762](#C_81-7762) |  |
| @classCode | 1..1 | SHALL |  | [81-7763](#C_81-7763) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| name | 0..1 | MAY |  | [81-16037](#C_81-16037) |  |

1. SHALL contain exactly one [1..1] @classCode="SDLOC" (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111 STATIC) (CONF:81-7758).
2. SHALL contain exactly one [1..1] templateId (CONF:81-7635) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.32" (CONF:81-10524).
3. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet HealthcareServiceLocation urn:oid:2.16.840.1.113883.1.11.20275 STATIC (CONF:81-16850).
4. SHOULD contain zero or more [0..\*] addr (CONF:81-7760).
5. SHOULD contain zero or more [0..\*] telecom (CONF:81-7761).
6. MAY contain zero or one [0..1] playingEntity (CONF:81-7762).
   1. The playingEntity, if present, SHALL contain exactly one [1..1] @classCode="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:81-7763).
   2. The playingEntity, if present, MAY contain zero or one [0..1] name (CONF:81-16037).

Figure 143: Service Delivery Location Example

<participantRole classCode="SDLOC">

<templateId root="2.16.840.1.113883.10.20.22.4.32"/>

<code code="1160-1" codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HealthcareServiceLocation" displayName="Urgent Care Center"/>

<addr>

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-5000"/>

<playingEntity classCode="PLC">

<name>Community Health and Hospitals</name>

</playingEntity>

</participantRole>

Severity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 253: Severity Observation (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) (optional)  [Adverse Event](#E_Adverse_Event_V1) (optional)  [Symptom (V2)](#E_Symptom_V2) (optional)  [Diagnosis (V2)](#E_Diagnosis_V2) (optional) |  |

This clinical statement represents the gravity of the reaction. The Severity Observation characterizes the Reaction Observation. A person may manifest many symptoms in a reaction to a single substance, and each reaction to the substance can be represented. However, each reaction observation can have only one severity observation associated with it. For example, someone may have a rash reaction observation as well as an itching reaction observation, but each can have only one level of severity.

Note the severity observation is no longer recommended for use with the Allergy and Intolerance Observation. The Criticality Observation is preferred for characterizing the Allergy and Intolerance.

Table 254: Severity Observation (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-7345](#C_1098-7345) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-7346](#C_1098-7346) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-7347](#C_1098-7347) |  |
| @root | 1..1 | SHALL |  | [1098-10525](#C_1098-10525) | 2.16.840.1.113883.10.20.22.4.8 |
| @extension | 1..1 | SHALL |  | [1098-32577](#C_1098-32577) | 2014-06-09 |
| code | 1..1 | SHALL |  | [1098-19168](#C_1098-19168) |  |
| @code | 1..1 | SHALL |  | [1098-19169](#C_1098-19169) | SEV |
| @codeSystem | 1..1 | SHALL |  | [1098-32170](#C_1098-32170) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1098-7352](#C_1098-7352) |  |
| @code | 1..1 | SHALL |  | [1098-19115](#C_1098-19115) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1098-7356](#C_1098-7356) | urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 (Reaction Severity) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7345).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-7346).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7347) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.8" (CONF:1098-10525).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32577).
4. SHALL contain exactly one [1..1] code (CONF:1098-19168).
   1. This code SHALL contain exactly one [1..1] @code="SEV" Severity (CONF:1098-19169).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32170).
5. SHALL contain exactly one [1..1] statusCode (CONF:1098-7352).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1098-19115).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet Reaction Severity urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 DYNAMIC (CONF:1098-7356).

Figure 144: Severity Observation (V2) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />

<code code="SEV" displayName="Severity Observation" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" />

<text>

<reference value="#allergyseverity1" />

</text>

<statusCode code="completed" />

<value xsi:type="CD" code="371924009" displayName="Moderate to severe" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />

</observation>

Status

[observation: identifier urn:oid:2.16.840.1.113883.10.20.24.3.93 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, DSTU Release 2, US Realm

Table 255: Status Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Intervention Performed (V4)](#E_Intervention_Performed_V4) (optional)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional) |  |

This simple “status” clinical statement should only be used if there is not already a described method for handling status. This template should be used if actStatus code does not convey enough meaning.  
This template represents the QDM Attribute: status. It indicates the particular stage of the action represented by the datatype

Table 256: Status Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.93) | | | | | |
| @classCode | 1..1 | SHALL |  | [67-11879](#C_67-11879) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [67-11880](#C_67-11880) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [67-11881](#C_67-11881) |  |
| @root | 1..1 | SHALL |  | [67-11882](#C_67-11882) | 2.16.840.1.113883.10.20.24.3.93 |
| code | 1..1 | SHALL |  | [67-11885](#C_67-11885) |  |
| @code | 1..1 | SHALL |  | [67-11886](#C_67-11886) | 33999-4 |
| @codeSystem | 1..1 | SHALL |  | [67-27011](#C_67-27011) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL |  | [67-11887](#C_67-11887) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:67-11879).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:67-11880).
3. SHALL contain exactly one [1..1] templateId (CONF:67-11881) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.93" (CONF:67-11882).
4. SHALL contain exactly one [1..1] code (CONF:67-11885).
   1. This code SHALL contain exactly one [1..1] @code="33999-4" status (CONF:67-11886).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27011).
5. SHALL contain exactly one [1..1] value (CONF:67-11887).

Figure 145: Status Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.93" />

<id root="29b776d3-089b-4a7f-b6e9-e45080091922" />

<code code="33999-4"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Status" />

<value xsi:type="CD"

code="445665009"

displayName="Final Report" />

</observation>

Substance Administered Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.118 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 257: Substance Administered Act Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional) |  |

This template represents the administration course in a series. The entryRelationship/sequenceNumber in the containing template shows the order of this particular administration in that medication series.

Table 258: Substance Administered Act Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-31500](#C_1098-31500) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1098-31501](#C_1098-31501) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-31502](#C_1098-31502) |  |
| @root | 1..1 | SHALL |  | [1098-31503](#C_1098-31503) | 2.16.840.1.113883.10.20.22.4.118 |
| id | 1..\* | SHALL |  | [1098-31504](#C_1098-31504) |  |
| code | 1..1 | SHALL |  | [1098-31506](#C_1098-31506) |  |
| @code | 1..1 | SHALL |  | [1098-31507](#C_1098-31507) | 416118004 |
| @codeSystem | 1..1 | SHALL |  | [1098-31508](#C_1098-31508) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [1098-31505](#C_1098-31505) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY |  | [1098-31509](#C_1098-31509) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31500).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31501).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-31502) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.118" (CONF:1098-31503).
4. SHALL contain at least one [1..\*] id (CONF:1098-31504).
5. SHALL contain exactly one [1..1] code (CONF:1098-31506).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CONF:1098-31507).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-31508).
6. SHALL contain exactly one [1..1] statusCode="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31505).
7. MAY contain zero or one [0..1] effectiveTime (CONF:1098-31509).

Figure 146: Substance Administered Act Example

<substanceAdministration classCode="SBADM" moodCode="EVN">

...

<consumable>

...

<code code="43" codeSystem="2.16.840.1.113883.6.59" displayName="Hepatitis B Vaccine" codeSystemName="CVX" />

</consumable>

<entryRelationship typeCode="COMP">

<!-- This entryRelationship sequenceNumber indicates this is #2 in the series -->

<sequenceNumber value="2" />

<act classCode="ACT" moodCode="EVN">

<!-- Substance Administered Act Template -->

<templateId root="2.16.840.1.113883.10.20.22.4.118" />

<id root="df8908d0-40f2-11e3-aa6e-0800200c9a66" />

<code code="416118004" displayName="administration" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />

<statusCode code="completed" />

<effectiveTime value="19991101" />

</act>

</entryRelationship>

...

</substanceAdministration>

Substance or Device Allergy - Intolerance Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09 (open)]

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Table 259: Substance or Device Allergy - Intolerance Observation (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
|  | [Allergy Status Observation](#E_Allergy_Status_Observation) (optional)  [Reaction Observation (V2)](#Reaction_Observation_V2) (optional)  [Severity Observation (V2)](#E_Severity_Observation_V2) (optional)  [Author Participation](#U_Author_Participation) (optional)  [Criticality Observation](#E_Criticality_Observation_)  (optional) |

This template reflects a discrete observation about a patient's allergy or intolerance to a substance or device. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the 'biologically relevant time' is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of penicillin allergy that developed five years ago, the effectiveTime is five years ago.

The effectiveTime of the Substance or Device Allergy - Intolerance Observation is the definitive indication of whether or not the underlying allergy/intolerance is resolved. If known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

Table 260: Substance or Device Allergy - Intolerance Observation (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09) | | | | | |
| @classCode | 1..1 | SHALL |  | [1098-16303](#C_1098-16303) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1098-16304](#C_1098-16304) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1098-16305](#C_1098-16305) |  |
| @root | 1..1 | SHALL |  | [1098-16306](#C_1098-16306) | 2.16.840.1.113883.10.20.24.3.90 |
| @extension | 1..1 | SHALL |  | [1098-32527](#C_1098-32527) | 2014-06-09 |
| id | 1..\* | SHALL |  | [1098-16307](#C_1098-16307) |  |
| code | 1..1 | SHALL |  | [1098-16345](#C_1098-16345) |  |
| @code | 1..1 | SHALL |  | [1098-16346](#C_1098-16346) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1098-32171](#C_1098-32171) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1098-16308](#C_1098-16308) |  |
| @code | 1..1 | SHALL |  | [1098-26354](#C_1098-26354) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1098-16309](#C_1098-16309) |  |
| low | 1..1 | SHALL |  | [1098-31536](#C_1098-31536) |  |
| high | 0..1 | MAY |  | [1098-31537](#C_1098-31537) |  |
| value | 1..1 | SHALL | CD | [1098-16312](#C_1098-16312) |  |
| @code | 1..1 | SHALL | CS | [1098-16317](#C_1098-16317) | urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 (Allergy and Intolerance Type) |
| author | 0..\* | SHOULD |  | [1098-31144](#C_1098-31144) | [Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119](#U_Author_Participation) |
| participant | 0..\* | SHOULD |  | [1098-16318](#C_1098-16318) |  |
| @typeCode | 1..1 | SHALL |  | [1098-16319](#C_1098-16319) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| participantRole | 1..1 | SHALL |  | [1098-16320](#C_1098-16320) |  |
| @classCode | 1..1 | SHALL |  | [1098-16321](#C_1098-16321) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [1098-16322](#C_1098-16322) |  |
| @classCode | 1..1 | SHALL |  | [1098-16323](#C_1098-16323) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| code | 1..1 | SHALL |  | [1098-16324](#C_1098-16324) | urn:oid:2.16.840.1.113762.1.4.1010.1 (Substance Reactant for Intolerance) |
| entryRelationship | 0..1 | MAY |  | [1098-16333](#C_1098-16333) |  |
| @typeCode | 1..1 | SHALL |  | [1098-16335](#C_1098-16335) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-16334](#C_1098-16334) | true |
| observation | 1..1 | SHALL |  | [1098-16336](#C_1098-16336) | [Allergy Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28](#E_Allergy_Status_Observation) |
| entryRelationship | 0..\* | SHOULD |  | [1098-16337](#C_1098-16337) |  |
| @typeCode | 1..1 | SHALL |  | [1098-16339](#C_1098-16339) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = MFST |
| @inversionInd | 1..1 | SHALL |  | [1098-16338](#C_1098-16338) | true |
| observation | 1..1 | SHALL |  | [1098-16340](#C_1098-16340) | [Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09](#Reaction_Observation_V2) |
| entryRelationship | 0..1 | SHOULD NOT |  | [1098-16341](#C_1098-16341) |  |
| @typeCode | 1..1 | SHALL |  | [1098-16342](#C_1098-16342) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-16343](#C_1098-16343) | true |
| observation | 1..1 | SHALL |  | [1098-16344](#C_1098-16344) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09](#E_Severity_Observation_V2) |
| entryRelationship | 0..1 | SHOULD |  | [1098-32935](#C_1098-32935) |  |
| @typeCode | 1..1 | SHALL |  | [1098-32936](#C_1098-32936) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [1098-32937](#C_1098-32937) | true |
| observation | 1..1 | SHALL |  | [1098-32938](#C_1098-32938) | [Criticality Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145](#E_Criticality_Observation_) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-16303).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1098-16304).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-16305) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.90" (CONF:1098-16306).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32527).
4. SHALL contain at least one [1..\*] id (CONF:1098-16307).
5. SHALL contain exactly one [1..1] code (CONF:1098-16345).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1098-16346).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32171).
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-16308).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-26354).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-16309).  
   Note: The effectiveTime/low (a.k.a. "onset date") asserts when the allergy/intolerance became biologically active. The effectiveTime/high (a.k.a. "resolution date") asserts when the allergy/intolerance became biologically resolved.   
     
   If the allergy/intolerance is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'.
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1098-31536).
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:1098-31537).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1098-16312).
   1. This value SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Allergy and Intolerance Type urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 DYNAMIC (CONF:1098-16317).  
      Note: Many systems will simply assign a fixed value here (e.g., "allergy to substance").
9. SHOULD contain zero or more [0..\*] [Author Participation](#U_Author_Participation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31144).
10. SHOULD contain zero or more [0..\*] participant (CONF:1098-16318) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-16319).
    2. SHALL contain exactly one [1..1] participantRole (CONF:1098-16320).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:1098-16321).
       2. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:1098-16322).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:1098-16323).
          2. This playingEntity SHALL contain exactly one [1..1] code, which MAY be selected from ValueSet Substance Reactant for Intolerance urn:oid:2.16.840.1.113762.1.4.1010.1 DYNAMIC (CONF:1098-16324).
11. MAY contain zero or one [0..1] entryRelationship (CONF:1098-16333) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-16335).
    2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16334).
    3. SHALL contain exactly one [1..1] [Allergy Status Observation](#E_Allergy_Status_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.28) (CONF:1098-16336).
12. SHOULD contain zero or more [0..\*] entryRelationship (CONF:1098-16337) such that it
    1. SHALL contain exactly one [1..1] @typeCode="MFST" Is Manifestation of (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-16339).
    2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16338).
    3. SHALL contain exactly one [1..1] [Reaction Observation (V2)](#Reaction_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16340).
13. SHOULD NOT contain zero or one [0..1] entryRelationship (CONF:1098-16341) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-16342).
    2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-16343).
    3. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-16344).
14. SHOULD contain zero or one [0..1] entryRelationship (CONF:1098-32935) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32936).
    2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-32937).
    3. SHALL contain exactly one [1..1] [Criticality Observation](#E_Criticality_Observation_)  (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145) (CONF:1098-32938).

Allergy Intolerance

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01 (open)]

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Table 261: Allergy Intolerance Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) (optional) | [Author](#U_Author) (optional) |

This template is to represent QDM data type: Allergy/Intolerance  
Allergy is used to address immune-mediated reactions to a substance such as type 1 hypersensitivity reactions, other allergy-like reactions, including pseudo-allergy.  
Intolerance is a record of a clinical assessment of a propensity, or a potential risk to an individual, to have a non-immune mediated adverse reaction on future exposure to the specified substance, or class of substance.

Table 262: Allergy Intolerance Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28826](#C_3343-28826) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28827](#C_3343-28827) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..0 | SHALL NOT |  | [3343-28848](#C_3343-28848) |  |
| templateId | 1..1 | SHALL |  | [3343-28816](#C_3343-28816) |  |
| @root | 1..1 | SHALL |  | [3343-28828](#C_3343-28828) | 2.16.840.1.113883.10.20.24.3.147 |
| @extension | 1..1 | SHALL |  | [3343-28829](#C_3343-28829) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28817](#C_3343-28817) |  |
| @code | 1..1 | SHALL |  | [3343-28831](#C_3343-28831) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3343-28832](#C_3343-28832) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [3343-28819](#C_3343-28819) |  |
| low | 1..1 | SHALL |  | [3343-28834](#C_3343-28834) |  |
| high | 0..1 | MAY |  | [3343-28835](#C_3343-28835) |  |
| value | 1..1 | SHALL | CD | [3343-28836](#C_3343-28836) |  |
| @code | 1..1 | SHALL |  | [3343-28849](#C_3343-28849) | 419199007 |
| @codeSystem | 1..1 | SHALL |  | [3343-28850](#C_3343-28850) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| author | 0..1 | MAY |  | [3343-29163](#C_3343-29163) | [Author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01](#U_Author) |
| participant | 1..1 | SHALL |  | [3343-28820](#C_3343-28820) |  |
| @typeCode | 1..1 | SHALL |  | [3343-28837](#C_3343-28837) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| participantRole | 1..1 | SHALL |  | [3343-28821](#C_3343-28821) |  |
| @classCode | 1..1 | SHALL |  | [3343-28838](#C_3343-28838) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [3343-28822](#C_3343-28822) |  |
| @classCode | 1..1 | SHALL |  | [3343-28839](#C_3343-28839) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| code | 1..1 | SHALL |  | [3343-28840](#C_3343-28840) |  |

1. Conforms to [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3343-28826).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3343-28827).
4. SHALL NOT contain [0..0] @negationInd (CONF:3343-28848).
5. SHALL contain exactly one [1..1] templateId (CONF:3343-28816) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.147" (CONF:3343-28828).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28829).
6. SHALL contain exactly one [1..1] code (CONF:3343-28817).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3343-28831).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28832).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:3343-28819).  
   Note: QDM Attribute: PrevalencePeriod
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3343-28834).  
      Note: onset date: when the allergy/intolerance became biologically active.
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:3343-28835).  
      Note: abatement date: when the allergy/intolerance became biologically resolved.
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-28836).
   1. This value SHALL contain exactly one [1..1] @code="419199007" Allergy to substance (CONF:3343-28849).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3343-28850).
9. MAY contain zero or one [0..1] [Author](#U_Author) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) (CONF:3343-29163).  
   Note: QDM Attribute: Author dateTime
10. SHALL contain exactly one [1..1] participant (CONF:3343-28820) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:3343-28837).
    2. SHALL contain exactly one [1..1] participantRole (CONF:3343-28821).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:3343-28838).
       2. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:3343-28822).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:3343-28839).
          2. This playingEntity SHALL contain exactly one [1..1] code (CONF:3343-28840).  
             Note: QDM Attribute: Code

Figure 147: Allergy Intolerance Example

<observation classCode="OBS" moodCode="EVN">

<!-- Conforms to C-CDA R2.1 Substance or Device Allergy - Intolerance Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.24.3.90" extension="2014-06-09"/>

<!-- Allergy Intolerance -->

<templateId root="2.16.840.1.113883.10.20.24.3.147" extension="2017-08-01"/>

<id root="901db0f8-9355-4794-81cd-fd951efe7817"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- QDM Attribute: Relevant Period - onset date -->

<low value="20171101"/>

<!-- QDM Attribute: Relevant Period - abatement date -->

<high nullFlavor="UNK"/>

</effectiveTime>

<value xsi:type="CD" code="419199007" displayName="Allergy to substance" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

<participant typeCode="CSM">

<participantRole classCode="MANU">

<playingEntity classCode="MMAT">

<!-- Medication -->

<code code="105152" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>

</playingEntity>

</participantRole>

</participant>

</observation>

Target Outcome (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01 (open)]

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Table 263: Target Outcome (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Care Goal (V4)](#E_Care_Goal_V4) (optional) |  |

This template represents the QDM attribute: Target Outcome.  
The expected outcome that will indicate the care goal is achieved, or met.

Table 264: Target Outcome (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3343-28033](#C_3343-28033) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3343-28034](#C_3343-28034) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3343-28025](#C_3343-28025) |  |
| @root | 1..1 | SHALL |  | [3343-28028](#C_3343-28028) | 2.16.840.1.113883.10.20.24.3.119 |
| @extension | 1..1 | SHALL |  | [3343-28029](#C_3343-28029) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3343-28026](#C_3343-28026) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| value | 1..1 | SHALL |  | [3343-28027](#C_3343-28027) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28033).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28034).
3. SHALL contain exactly one [1..1] templateId (CONF:3343-28025) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.119" (CONF:3343-28028).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28029).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28026).
5. SHALL contain exactly one [1..1] value (CONF:3343-28027).

Figure 148: Target Outcome (V2) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.119" extension="2017-08-01"/>

<id root="3a4aa411-78b9-484b-a0f1-33f1cf49b4ad"/>

<code code="29463-7" displayName="Body weight" codeSystemName="LOINC"/>

<value xsi:type="PQ" unit="kg" value="65"/>

</observation>

# subentry

Facility Location (V2)

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 (open)]

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Table 265: Facility Location (V2) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Adverse Event](#E_Adverse_Event_V1) (optional)  [Encounter Performed (V4)](#E_Encounter_Performed_V4) (optional)  [Encounter Order (V4)](#E_Encounter_Order_V4) (optional)  [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) (optional)  [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional) |  |

This clinical statement represents the location where an act, observation or procedure took place.  
The particular location of a facility in which the adverse event, diagnostic study, or encounter occurs or occurred. Examples include, but are not limited to, intensive care units (ICUs), non-ICUs, burn critical-care unit, neonatal ICU, and respiratory-care unit.  
Each Encounter, Performed may have 1 or more locations. For example, a patient treated in multiple locations during an individual encounter might be expressed as:  
Encounter, Performed: Inpatient Admission  
ICU (location period)  
Non-ICU Admission (location period)  
Rehab (location period)

Table 266: Facility Location (V2) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) | | | | | |
| @typeCode | 1..1 | SHALL |  | [3343-13374](#C_3343-13374) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| templateId | 1..1 | SHALL |  | [3343-13375](#C_3343-13375) |  |
| @root | 1..1 | SHALL |  | [3343-13376](#C_3343-13376) | 2.16.840.1.113883.10.20.24.3.100 |
| @extension | 1..1 | SHALL |  | [3343-28729](#C_3343-28729) | 2017-08-01 |
| time | 1..1 | SHALL |  | [3343-13371](#C_3343-13371) |  |
| low | 1..1 | SHALL |  | [3343-13384](#C_3343-13384) |  |
| high | 0..1 | MAY |  | [3343-13385](#C_3343-13385) |  |
| participantRole | 1..1 | SHALL |  | [3343-13372](#C_3343-13372) |  |
| @classCode | 1..1 | SHALL |  | [3343-13373](#C_3343-13373) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| code | 1..1 | SHALL |  | [3343-13378](#C_3343-13378) |  |
| addr | 0..\* | SHOULD |  | [3343-13379](#C_3343-13379) |  |
| telecom | 0..\* | SHOULD |  | [3343-13380](#C_3343-13380) |  |
| playingEntity | 0..1 | MAY |  | [3343-13381](#C_3343-13381) |  |
| @classCode | 1..1 | SHALL |  | [3343-13382](#C_3343-13382) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| name | 0..1 | MAY |  | [3343-13383](#C_3343-13383) |  |

1. SHALL contain exactly one [1..1] @typeCode="LOC" location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:3343-13374).
2. SHALL contain exactly one [1..1] templateId (CONF:3343-13375) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.100" (CONF:3343-13376).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28729).
3. SHALL contain exactly one [1..1] time (CONF:3343-13371).  
   Note: QDM Attribute: Location Period
   1. This time SHALL contain exactly one [1..1] low (CONF:3343-13384).
   2. This time MAY contain zero or one [0..1] high (CONF:3343-13385).
4. SHALL contain exactly one [1..1] participantRole (CONF:3343-13372).
   1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:3343-13373).
   2. This participantRole SHALL contain exactly one [1..1] code (CONF:3343-13378).  
      Note: QDM Attribute: Code
   3. This participantRole SHOULD contain zero or more [0..\*] addr (CONF:3343-13379).
   4. This participantRole SHOULD contain zero or more [0..\*] telecom (CONF:3343-13380).
   5. This participantRole MAY contain zero or one [0..1] playingEntity (CONF:3343-13381).
      1. The playingEntity, if present, SHALL contain exactly one [1..1] @classCode="PLC" place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:3343-13382).
      2. The playingEntity, if present, MAY contain zero or one [0..1] name (CONF:3343-13383).

Figure 149: Facility Location (V2) Example

<participant typeCode="LOC">

<!-- Facility Location template -->

<templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2017-08-01"/>

<time>

<!-- QDM Attribute: Location Period -->

<low value="20170203"/>

<high value="20170206"/>

</time>

<participantRole classCode="SDLOC">

<code code="GACH"

codeSystem="2.16.840.1.113883.5.111"

codeSystemName="HL7RoleCode"

displayName="General Acute Care Hospital"

/>

<addr>

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom nullFlavor="UNK"/>

<playingEntity classCode="PLC">

<name>Good Health Clinic</name>

</playingEntity>

</participantRole>

</participant>

Related To

[sdtc:inFulfillmentOf1: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 267: Related To Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Assessment Performed (V2)](#E_Assessment_Performed_V2) (optional)  [Communication from Patient to Provider (V4)](#E_Comm_from_Patient_to_Provide_V4) (optional)  [Communication from Provider to Patient (V4)](#E_Comm_from_Provider_to_Patien_V4) (optional)  [Communication from Provider to Provider (V4)](#E_Comm_from_Provider_to_Provid_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4) (optional)  [Communication Performed](#E_Communication_Performed_) (optional) |  |

This template represents the QDM Attribute: Related To  
Something to which the QDM element instance is related to.  
This template uses the CDA extension sdtc:inFulfillmentOf1 which is available to be used inside an observation, substanceAdministration, supply, procedure, encounter, procedure or an act. This template will reference (using sdtc:actReference) an already existing QDM element instance in the QRDA document. The id of the existing QDM element will be used to reference the already existing data without repeating it in this template. The sdtc:actReference/id is required and must be the same id as the entry/id it is referencing. The sdtc:actReference/id cannot be a null value. The sdtc:actReference/classCode and sdtc:actReference/moodCode must be the same as the entry/classCode and entry/moodCode of the entry being referenced.

Table 268: Related To Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| sdtc:inFulfillmentOf1 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) | | | | | |
| @typeCode | 1..1 | SHALL |  | [3343-29113](#C_3343-29113) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = FLFS |
| sdtc:templateId | 1..1 | SHALL |  | [3343-29104](#C_3343-29104) |  |
| @root | 1..1 | SHALL |  | [3343-29107](#C_3343-29107) | 2.16.840.1.113883.10.20.24.3.150 |
| @extension | 1..1 | SHALL |  | [3343-29108](#C_3343-29108) | 2017-08-01 |
| sdtc:actReference | 1..1 | SHALL |  | [3343-29105](#C_3343-29105) |  |
| @classCode | 1..1 | SHALL |  | [3343-29114](#C_3343-29114) |  |
| @moodCode | 1..1 | SHALL |  | [3343-29110](#C_3343-29110) |  |
| sdtc:id | 1..\* | SHALL |  | [3343-29106](#C_3343-29106) |  |
| @root | 1..1 | SHALL |  | [3343-29111](#C_3343-29111) |  |
| @extension | 0..1 | MAY |  | [3343-29112](#C_3343-29112) |  |

1. SHALL contain exactly one [1..1] @typeCode="FLFS" Fulfills (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-29113).
2. SHALL contain exactly one [1..1] sdtc:templateId (CONF:3343-29104) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.150" (CONF:3343-29107).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-29108).
3. SHALL contain exactly one [1..1] sdtc:actReference (CONF:3343-29105).
   1. This sdtc:actReference SHALL contain exactly one [1..1] @classCode (CONF:3343-29114).  
      Note: @classCode must be the same as the entry/classCode of the entry being referenced.
   2. This sdtc:actReference SHALL contain exactly one [1..1] @moodCode (CONF:3343-29110).  
      Note: @moodCode must be the same as the entry/moodCode of the entry being referenced.
   3. This sdtc:actReference SHALL contain at least one [1..\*] sdtc:id (CONF:3343-29106).  
      Note: The ID must equal another entry/id in the same document instance.
      1. Such sdtc:ids SHALL contain exactly one [1..1] @root (CONF:3343-29111).
      2. Such sdtc:ids MAY contain zero or one [0..1] @extension (CONF:3343-29112).

Figure 150: Related To Example

<procedure classCode="PROC" moodCode="EVN">

<!-- Conforms to C-CDA R2 Procedure Activity Procedure (V2) -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"

extension="2014-06-09" />

<!-- QRDA R3: Device Applied Template -->

<templateId root="2.16.840.1.113883.10.20.24.3.7"

extension="2014-12-01" />

...

<!-- This Device, Applied procedure is related to a Device, Order

defined elsewhere in the QRDA XML -->

<sdtc:inFulfillmentOf1 typeCode="FLFS">

<sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150"

extension="2017-08-01"/>

<!-- The classCode and moodCode are the same as the classCode and moodCode of the Device, Order being referenced -->

<sdtc:actReference classCode="SPLY" moodCode="RQO">

<!-- The id is the same as the id of the Device, Order being referenced -->

<sdtc:id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6" />

</sdtc:actReference>

</sdtc:inFulfillmentOf1>

</procedure>

# unspecified

Author

[author: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 (open)]

Published as part of Quality Reporting Document Architecture Category I (QRDA I), Release 1, STU Release 5, US Realm

Table 269: Author Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Adverse Event](#E_Adverse_Event_V1) (optional)  [Assessment Performed (V2)](#E_Assessment_Performed_V2) (optional)  [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) (required)  [Encounter Performed (V4)](#E_Encounter_Performed_V4) (optional)  [Encounter Order (V4)](#E_Encounter_Order_V4) (required)  [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) (required)  [Allergy Intolerance](#E_Allergy_Intolerance) (optional)  [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) (required)  [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) (optional)  [Diagnosis (V2)](#E_Diagnosis_V2) (optional)  [Family History Observation QDM (V3)](#E_Family_History_Observation_QDM_V3) (optional)  [Device Order (V4)](#E_Device_Order_V4) (required)  [Communication from Patient to Provider (V4)](#E_Comm_from_Patient_to_Provide_V4) (required)  [Communication from Provider to Patient (V4)](#E_Comm_from_Provider_to_Patien_V4) (required)  [Communication from Provider to Provider (V4)](#E_Comm_from_Provider_to_Provid_V4) (required)  [Device Recommended (V4)](#E_Device_Recommended_V4) (required)  [Immunization Order (V2)](#E_Immunization_Order_V2) (required)  [Intervention Performed (V4)](#E_Intervention_Performed_V4) (optional)  [Intervention Recommended (V4)](#E_Intervention_Recommended_V4) (required)  [Intervention Order (V4)](#E_Intervention_Order_V4) (required)  [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) (required)  [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) (required)  [Patient Care Experience (V4)](#E_Patient_Care_Experience_V4) (required)  [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) (required)  [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) (optional)  [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) (required)  [Provider Care Experience (V4)](#E_Provider_Care_Experience_V4_)  (required)  [Substance Recommended (V4)](#E_Substance_Recommended_V4) (required)  [Provider Characteristic Observation Assertion (V3)](#E_Provider_Characteristic_Observation_V3) (optional)  [Diagnostic Study Recommended (V4)](#E_Diagnostic_Study_Recommended_V4) (required)  [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) (optional)  [Communication Performed](#E_Communication_Performed_) (required)  [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) (required)  [Medication Order (V5)](#E_Medication_Order_V5) (required)  [Procedure Order (V5)](#E_Procedure_Order_V5) (required)  [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) (required)  [Procedure Performed (V5)](#E_Procedure_Performed_V5) (optional)  [Assessment Order](#E_Assessment_Order_) (required)  [Device Applied (V5)](#E_Device_Applied_V5) (optional) |  |

This template is intended to represent Author Datetime QDM attribute.

Table 270: Author Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3343-29151](#C_3343-29151) |  |
| @root | 1..1 | SHALL |  | [3343-29160](#C_3343-29160) | 2.16.840.1.113883.10.20.24.3.155 |
| @extension | 1..1 | SHALL |  | [3343-29161](#C_3343-29161) | 2017-08-01 |
| time | 1..1 | SHALL |  | [3343-29152](#C_3343-29152) |  |
| assignedAuthor | 1..1 | SHALL |  | [3343-29146](#C_3343-29146) |  |
| id | 1..\* | SHALL |  | [3343-29147](#C_3343-29147) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:3343-29151) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.155" (CONF:3343-29160).
   2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-29161).
2. SHALL contain exactly one [1..1] time (CONF:3343-29152).  
   Note: QDM Attribute: Author dateTime
3. SHALL contain exactly one [1..1] assignedAuthor (CONF:3343-29146).
   1. This assignedAuthor SHALL contain at least one [1..\*] id (CONF:3343-29147).  
      Note: nullFlavor is allowed for assignedAuthor/id

Figure 151: Author Example

<author>

<templateId root="2.16.840.1.113883.10.20.24.3.155" extension=”2017-08-01” />

<time value="201708111235"/>

<assignedAuthor>

<id nullFlavor="NA" />

</assignedAuthor>

</author>

Author Participation

[author: identifier urn:oid:2.16.840.1.113883.10.20.22.4.119 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R2

Table 271: Author Participation Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (optional)  [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) (optional)  [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) (optional)  [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) (optional)  [Goal Observation](#E_Goal_Observation_U) (optional)  [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) (optional)  [Immunization Activity (V2)](#E_Immunization_Activity_V2) (optional)  [Planned Act (V2)](#E_Planned_Act_V2) (optional)  [Planned Encounter (V2)](#E_Planned_Encounter_V2) (optional)  [Planned Procedure (V2)](#E_Planned_Procedure_V2) (optional)  [Planned Observation (V2)](#E_Planned_Observation_V2) (optional)  [Planned Supply (V2)](#E_Planned_Supply_V2) (optional)  [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) (optional)  [Priority Preference](#E_Priority_Preference) (optional)  [Planned Coverage](#E_Planned_Coverage) (optional)  [Planned Immunization Activity](#E_Planned_Immunization_Activity) (optional)  [Result Observation (V3)](#E_Result_Observation_V3) (optional)  [Problem Observation (V3)](#E_Problem_Observation_V3) (optional)  [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) (optional) |  |

This template represents the Author Participation (including the author timestamp). CDA R2 requires that Author and Author timestamp be asserted in the document header. From there, authorship propagates to contained sections and contained entries, unless explicitly overridden.

The Author Participation template was added to those templates in scope for analysis in R2. Although it is not explicitly stated in all templates the Author Participation template can be used in any template.

Table 272: Author Participation Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| author (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) | | | | | |
| templateId | 1..1 | SHALL |  | [1098-32017](#C_1098-32017) |  |
| @root | 1..1 | SHALL |  | [1098-32018](#C_1098-32018) | 2.16.840.1.113883.10.20.22.4.119 |
| time | 1..1 | SHALL |  | [1098-31471](#C_1098-31471) |  |
| assignedAuthor | 1..1 | SHALL |  | [1098-31472](#C_1098-31472) |  |
| id | 1..\* | SHALL |  | [1098-31473](#C_1098-31473) |  |
| code | 0..1 | SHOULD |  | [1098-31671](#C_1098-31671) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy (HIPAA)) |
| assignedPerson | 0..1 | MAY |  | [1098-31474](#C_1098-31474) |  |
| name | 0..\* | MAY |  | [1098-31475](#C_1098-31475) |  |
| representedOrganization | 0..1 | MAY |  | [1098-31476](#C_1098-31476) |  |
| id | 0..\* | MAY |  | [1098-31478](#C_1098-31478) |  |
| name | 0..\* | MAY |  | [1098-31479](#C_1098-31479) |  |
| telecom | 0..\* | MAY |  | [1098-31480](#C_1098-31480) |  |
| addr | 0..\* | MAY |  | [1098-31481](#C_1098-31481) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:1098-32017) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.119" (CONF:1098-32018).
2. SHALL contain exactly one [1..1] time (CONF:1098-31471).
3. SHALL contain exactly one [1..1] assignedAuthor (CONF:1098-31472).
   1. This assignedAuthor SHALL contain at least one [1..\*] id (CONF:1098-31473).  
      Note: This id may be set equal to (a pointer to) an id on a participant elsewhere in the document (header or entries) or a new author participant can be described here. If the id is pointing to a participant already described elsewhere in the document, assignedAuthor/id is sufficient to identify this participant and none of the remaining details of assignedAuthor are required to be set. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. This id must be a pointer to another author participant.
      1. If the ID isn't referencing an author described elsewhere in the document, then the author components required in US Realm Header are required here as well (CONF:1098-32628).
   2. This assignedAuthor SHOULD contain zero or one [0..1] code, which SHOULD be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:1098-31671).
      1. If the content is patient authored the code SHOULD be selected from Personal And Legal Relationship Role Type (2.16.840.1.113883.11.20.12.1) (CONF:1098-32315).
   3. This assignedAuthor MAY contain zero or one [0..1] assignedPerson (CONF:1098-31474).
      1. The assignedPerson, if present, MAY contain zero or more [0..\*] name (CONF:1098-31475).
   4. This assignedAuthor MAY contain zero or one [0..1] representedOrganization (CONF:1098-31476).
      1. The representedOrganization, if present, MAY contain zero or more [0..\*] id (CONF:1098-31478).
      2. The representedOrganization, if present, MAY contain zero or more [0..\*] name (CONF:1098-31479).
      3. The representedOrganization, if present, MAY contain zero or more [0..\*] telecom (CONF:1098-31480).
      4. The representedOrganization, if present, MAY contain zero or more [0..\*] addr (CONF:1098-31481).

Figure 152: New Author Participant Example

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<time value="201308011235-0800" />

<assignedAuthor>

<id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />

<code code="163W00000X" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" displayName="Registered nurse" />

<assignedPerson>

<name>

<given>Nurse</given>

<family>Nightingale</family>

<suffix>RN</suffix>

</name>

</assignedPerson>

<representedOrganization>

<id root="2.16.840.1.113883.19.5" />

<name>Good Health Hospital</name>

</representedOrganization>

</assignedAuthor>

</author>

Figure 153: Existing Author Reference Example

<author>

<time value="201308011235-0800" />

<assignedAuthor>

<!--

This id points to a participant already described

elsewhere in the document

-->

<id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />

</assignedAuthor>

</author>

US Realm Address (AD.US.FIELDED)

[addr: identifier urn:oid:2.16.840.1.113883.10.20.22.5.2 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 273: US Realm Address (AD.US.FIELDED) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) (optional)  [US Realm Header (V3)](#D_US_Realm_Header_V3) (optional)  [US Realm Header (V3)](#D_US_Realm_Header_V3) (required)  [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) (required) |  |

Reusable address template, for use in US Realm CDA Header.

Table 274: US Realm Address (AD.US.FIELDED) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| addr (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) | | | | | |
| @use | 0..1 | SHOULD |  | [81-7290](#C_81-7290) | urn:oid:2.16.840.1.113883.1.11.10637 (PostalAddressUse) |
| country | 0..1 | SHOULD |  | [81-7295](#C_81-7295) | urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country) |
| state | 0..1 | SHOULD |  | [81-7293](#C_81-7293) | urn:oid:2.16.840.1.113883.3.88.12.80.1 (StateValueSet) |
| city | 1..1 | SHALL |  | [81-7292](#C_81-7292) |  |
| postalCode | 0..1 | SHOULD |  | [81-7294](#C_81-7294) | urn:oid:2.16.840.1.113883.3.88.12.80.2 (PostalCode) |
| streetAddressLine | 1..4 | SHALL |  | [81-7291](#C_81-7291) |  |

If addr/@nullFlavor is present, the remaining conformance statements *SHALL NOT* be enforced

1. SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet PostalAddressUse urn:oid:2.16.840.1.113883.1.11.10637 STATIC 2005-05-01 (CONF:81-7290).
2. SHOULD contain zero or one [0..1] country, which SHALL be selected from ValueSet Country urn:oid:2.16.840.1.113883.3.88.12.80.63 DYNAMIC (CONF:81-7295).
3. SHOULD contain zero or one [0..1] state (ValueSet: StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1 DYNAMIC) (CONF:81-7293).
   1. If the country is US, the state element is required but SHOULD have @nullFlavor if the state is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the state MAY be present but MAY be bound to different vocabularies (CONF:81-10024).
4. SHALL contain exactly one [1..1] city (CONF:81-7292).
5. SHOULD contain zero or one [0..1] postalCode, which SHOULD be selected from ValueSet PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 DYNAMIC (CONF:81-7294).
   1. If the country is US, the postalCode element is required but SHOULD have @nullFlavor if the postalCode is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the postalCode MAY be present but MAY be bound to different vocabularies (CONF:81-10025).
6. SHALL contain at least one and not more than 4 streetAddressLine (CONF:81-7291).
7. SHALL NOT have mixed content except for white space (CONF:81-7296).

Figure 154: US Realm Address Example

<addr use="HP">

<streetAddressLine>22 Sample Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

US Realm Date and Time (DTM.US.FIELDED)

[effectiveTime: identifier urn:oid:2.16.840.1.113883.10.20.22.5.4 (open)]

Published as part of Consolidated CDA Templates for Clinical Notes (US Realm) DSTU R1.1

Table 275: US Realm Date and Time (DTM.US.FIELDED) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) (optional)  [US Realm Header (V3)](#D_US_Realm_Header_V3) (required)  [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) (required) |  |

The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement.

This data type uses the same rules as US Realm Date and Time (DT.US.FIELDED), but is used with elements having a datatype of TS.

Table 276: US Realm Date and Time (DTM.US.FIELDED) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| effectiveTime (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) | | | | | |

1. SHALL be precise to the day (CONF:81-10127).
2. SHOULD be precise to the minute (CONF:81-10128).
3. MAY be precise to the second (CONF:81-10129).
4. If more precise than day, SHOULD include time-zone offset (CONF:81-10130).

Figure 155: US Realm Date and Time Example

<!-- Common values for date/time elements would range in precision to the day YYYYMMDD to precision to the second with a time zone offset YYYYMMDDHHMMSS - ZZzz -->

<!-- time element with TS data type precise to the day for a birthdate -->

<time value=”19800531”/>

<!-- effectiveTime element with IVL<TS> data type precise to the second for an observation -->

<effectiveTime>

<low value='20110706122735-0800'/>

<high value='20110706122815-0800'/>

</effectiveTime>

US Realm Patient Name (PTN.US.FIELDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1 (open)]

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Table 277: US Realm Patient Name (PTN.US.FIELDED) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) (required) |  |

The US Realm Patient Name datatype flavor is a set of reusable constraints that can be used for the patient or any other person. It requires a first (given) and last (family) name. If a patient or person has only one name part (e.g., patient with first name only) place the name part in the field required by the organization. Use the appropriate nullFlavor, "Not Applicable" (NA), in the other field.  
For information on mixed content see the Extensible Markup Language reference (<http://www.w3c.org/TR/2008/REC-xml-20081126/>).

Table 278: US Realm Patient Name (PTN.US.FIELDED) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1) | | | | | |
| @use | 0..1 | MAY |  | [81-7154](#C_81-7154) | urn:oid:2.16.840.1.113883.1.11.15913 (EntityNameUse) |
| family | 1..1 | SHALL |  | [81-7159](#C_81-7159) |  |
| @qualifier | 0..1 | MAY |  | [81-7160](#C_81-7160) | urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier) |
| given | 1..\* | SHALL |  | [81-7157](#C_81-7157) |  |
| @qualifier | 0..1 | MAY |  | [81-7158](#C_81-7158) | urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier) |
| prefix | 0..\* | MAY |  | [81-7155](#C_81-7155) |  |
| @qualifier | 0..1 | MAY |  | [81-7156](#C_81-7156) | urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier) |
| suffix | 0..1 | MAY |  | [81-7161](#C_81-7161) |  |
| @qualifier | 0..1 | MAY |  | [81-7162](#C_81-7162) | urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier) |

If name/@nullFlavor is present, the remaining conformance statements *SHALL NOT* be enforced

1. MAY contain zero or one [0..1] @use, which SHALL be selected from ValueSet EntityNameUse urn:oid:2.16.840.1.113883.1.11.15913 STATIC 2005-05-01 (CONF:81-7154).
2. SHALL contain exactly one [1..1] family (CONF:81-7159).
   1. This family MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7160).
3. SHALL contain at least one [1..\*] given (CONF:81-7157).
   1. Such givens MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7158).
   2. The second occurrence of given (given[2]) if provided, SHALL include middle name or middle initial (CONF:81-7163).
4. MAY contain zero or more [0..\*] prefix (CONF:81-7155).
   1. The prefix, if present, MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7156).
5. MAY contain zero or one [0..1] suffix (CONF:81-7161).
   1. The suffix, if present, MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7162).
6. SHALL NOT have mixed content except for white space (CONF:81-7278).

Figure 156: US Realm Patient Name Example

<name use="L">

<prefix qualifier="TITLE">Rep</suffix>

<given>Evelyn</given>

<given qualifier="CL">Eve</given>

<family qualifier="BR">Everywoman</family>

<suffix qualifier="AC">J.D.</suffix>

</name>

US Realm Person Name (PN.US.FIELDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1.1 (open)]

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Table 279: US Realm Person Name (PN.US.FIELDED) Contexts

| **Contained By:** | **Contains:** |
| --- | --- |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) (required)  [US Realm Header (V3)](#D_US_Realm_Header_V3) (optional)  [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) (required) |  |

The US Realm Clinical Document Person Name datatype flavor is a set of reusable constraints that can be used for Persons.

Table 280: US Realm Person Name (PN.US.FIELDED) Constraints Overview

| **XPath** | **Card.** | **Verb** | **Data Type** | **CONF#** | **Value** |
| --- | --- | --- | --- | --- | --- |
| name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) | | | | | |
| name | 1..1 | SHALL |  | [81-9368](#C_81-9368) |  |

1. SHALL contain exactly one [1..1] name (CONF:81-9368).
   1. The content of name SHALL be either a conformant Patient Name (PTN.US.FIELDED), or a string (CONF:81-9371).
   2. The string SHALL NOT contain name parts (CONF:81-9372).

# Template Ids in This Guide

Table 281: Template List

| **Template Title** | **Template Type** | **templateId** |
| --- | --- | --- |
| [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01 |
| [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01 |
| [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01 |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01 |
| [Measure Section](#S_Measure_Section) | section | urn:oid:2.16.840.1.113883.10.20.24.2.2 |
| [Measure Section QDM](#S_Measure_Section_QDM) | section | urn:oid:2.16.840.1.113883.10.20.24.2.3 |
| [Patient Data Section](#S_Patient_Data_Section) | section | urn:oid:2.16.840.1.113883.10.20.17.2.4 |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) | section | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01 |
| [Patient Data Section QDM (V6) - CMS](#S_Patient_Data_Section_QDM_V6_CMS) | section | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01 |
| [Reporting Parameters Section](#S_Reporting_Parameters_Section) | section | urn:oid:2.16.840.1.113883.10.20.17.2.1 |
| [Reporting Parameters Section - CMS](#S_Reporting_Parameters_Section_CMS) | section | urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01 |
| [Admission Source](#E_Admission_Source_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01 |
| [Adverse Event](#E_Adverse_Event_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01 |
| [Adverse Event Cause Observation Assertion](#E_Adverse_Event_Cause_Observation_Asser) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01 |
| [Age Observation](#E_Age_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.31 |
| [Allergy Intolerance](#E_Allergy_Intolerance) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01 |
| [Allergy Status Observation](#E_Allergy_Status_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.28 |
| [Assessment Order](#E_Assessment_Order_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01 |
| [Assessment Performed (V2)](#E_Assessment_Performed_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01 |
| [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01 |
| [Care Goal (V4)](#E_Care_Goal_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01 |
| [Communication from Patient to Provider (V4)](#E_Comm_from_Patient_to_Provide_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.2:2017-08-01 |
| [Communication from Provider to Patient (V4)](#E_Comm_from_Provider_to_Patien_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.3:2017-08-01 |
| [Communication from Provider to Provider (V4)](#E_Comm_from_Provider_to_Provid_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.4:2017-08-01 |
| [Communication Performed](#E_Communication_Performed_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01 |
| [Component](#E_Component) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 |
| [Criticality Observation](#E_Criticality_Observation_) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.145 |
| [Days Supplied](#E_Days_Supplied_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01 |
| [Deceased Observation (V3)](#E_Deceased_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01 |
| [Device Applied (V5)](#E_Device_Applied_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01 |
| [Device Order (V4)](#E_Device_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2017-08-01 |
| [Device Order Act (V2)](#E_Device_Order_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01 |
| [Device Recommended (V4)](#E_Device_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01 |
| [Device Recommended Act (V2)](#E_Device_Recommended_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01 |
| [Diagnosis (V2)](#E_Diagnosis_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01 |
| [Diagnosis Concern Act (V3)](#E_Diagnosis_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01 |
| [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01 |
| [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01 |
| [Diagnostic Study Recommended (V4)](#E_Diagnostic_Study_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01 |
| [Discharge Medication (V4)](#E_Discharge_Medication_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [eMeasure Reference QDM](#E_eMeasure_Reference_QDM) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.97 |
| [Encounter Activity (V3)](#E_Encounter_Activity_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01 |
| [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 |
| [Encounter Order (V4)](#E_Encounter_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01 |
| [Encounter Order Act (V2)](#E_Encounter_Order_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01 |
| [Encounter Performed (V4)](#E_Encounter_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01 |
| [Encounter Performed Act (V2)](#E_Encounter_Performed_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01 |
| [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01 |
| [Encounter Recommended Act (V2)](#E_Encounter_Recommended_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01 |
| [Entry Reference](#E_Entry_Reference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| [External Document Reference](#E_External_Document_Reference) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 |
| [Family History Death Observation](#E_Family_History_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.47 |
| [Family History Observation (V3)](#E_Family_History_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01 |
| [Family History Observation QDM (V3)](#E_Family_History_Observation_QDM_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01 |
| [Family History Organizer (V3)](#E_Family_History_Organizer_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01 |
| [Family History Organizer QDM (V4)](#E_Family_History_Organizer_QDM_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01 |
| [Goal Observation](#E_Goal_Observation_U) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.121 |
| [Immunization Activity (V2)](#E_Immunization_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2014-06-09 |
| [Immunization Administered (V2)](#E_Immunization_Administered_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Immunization Order (V2)](#E_Immunization_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01 |
| [Immunization Refusal Reason](#E_Immunization_Refusal_Reason) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.53 |
| [Incision Datetime](#E_Incision_Datetime) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.89 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Intervention Order (V4)](#E_Intervention_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01 |
| [Intervention Performed (V4)](#E_Intervention_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01 |
| [Intervention Recommended (V4)](#E_Intervention_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2017-08-01 |
| [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01 |
| [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01 |
| [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01 |
| [Measure Reference](#E_Measure_Reference) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.98 |
| [Medication Active (V4)](#E_Medication_Active_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Medication Administered (V4)](#E_Medication_Administered_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01 |
| [Medication Dispensed Act (V3)](#E_Medication_Dispensed_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Order (V5)](#E_Medication_Order_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Supply Request (V2)](#E_Medication_Supply_Request_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05 |
| [Patient Care Experience (V4)](#E_Patient_Care_Experience_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01 |
| [Patient Characteristic Clinical Trial Participant (V4)](#E_Patient_Characteristic_Clinical_Trial) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01 |
| [Patient Characteristic Expired (V3)](#E_Patient_Characteristic_Expired_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01 |
| [Patient Characteristic Observation Assertion (V4)](#E_Patient_Characteristic_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01 |
| [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.55 |
| [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01 |
| [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01 |
| [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01 |
| [Planned Act (V2)](#E_Planned_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09 |
| [Planned Coverage](#E_Planned_Coverage) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.129 |
| [Planned Encounter (V2)](#E_Planned_Encounter_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09 |
| [Planned Immunization Activity](#E_Planned_Immunization_Activity) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.120 |
| [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09 |
| [Planned Observation (V2)](#E_Planned_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09 |
| [Planned Procedure (V2)](#E_Planned_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09 |
| [Planned Supply (V2)](#E_Planned_Supply_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Principal Diagnosis](#E_Principal_Diagnosis_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [Problem Status](#E_Problem_Status) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.6 |
| [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09 |
| [Procedure Activity Observation (V2)](#E_Procedure_Activity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Procedure Order (V5)](#E_Procedure_Order_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01 |
| [Procedure Performed (V5)](#E_Procedure_Performed_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01 |
| [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Prognosis Observation](#E_Prognosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.113 |
| [Program Participation](#E_Program_Participation_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2017-08-01 |
| [Provider Care Experience (V4)](#E_Provider_Care_Experience_V4_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01 |
| [Provider Characteristic Observation Assertion (V3)](#E_Provider_Characteristic_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01 |
| [Reaction Observation (V2)](#Reaction_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Reporting Parameters Act](#E_Reporting_Parameters_Act) | entry | urn:oid:2.16.840.1.113883.10.20.17.3.8 |
| [Reporting Parameters Act - CMS](#E_Reporting_Parameters_Act_CMS) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01 |
| [Result Observation (V3)](#E_Result_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Status](#E_Status) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.93 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09 |
| [Substance Recommended (V4)](#E_Substance_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01 |
| [Symptom (V2)](#E_Symptom_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01 |
| [Symptom Concern Act (V3)](#E_Symptom_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01 |
| [Target Outcome (V2)](#E_Target_Outcome_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01 |
| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
| [Related To](#SE_Related_To) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| [US Realm Patient Name (PTN.US.FIELDED)](#U_US_Realm_Patient_Name_PTNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |

Table 282: Template Containments

| **Template Title** | **Template Type** | **templateId** |
| --- | --- | --- |
| [QDM-Based QRDA (V6)](#D_QDMBased_QRDA_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01 |
| [Reporting Parameters Section](#S_Reporting_Parameters_Section) | section | urn:oid:2.16.840.1.113883.10.20.17.2.1 |
| [Reporting Parameters Act](#E_Reporting_Parameters_Act) | entry | urn:oid:2.16.840.1.113883.10.20.17.3.8 |
| [Measure Section QDM](#S_Measure_Section_QDM) | section | urn:oid:2.16.840.1.113883.10.20.24.2.3 |
| [eMeasure Reference QDM](#E_eMeasure_Reference_QDM) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.97 |
| [Patient Data Section QDM (V6)](#S_Patient_Data_Section_QDM_V6) | section | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01 |
| [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.55 |
| [Patient Characteristic Expired (V3)](#E_Patient_Characteristic_Expired_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01 |
| [Adverse Event](#E_Adverse_Event_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2017-08-01 |
| [Reaction Observation (V2)](#Reaction_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
| [Adverse Event Cause Observation Assertion](#E_Adverse_Event_Cause_Observation_Asser) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Assessment Performed (V2)](#E_Assessment_Performed_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Component](#E_Component) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 |
| [Related To](#SE_Related_To) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Assessment Recommended (V2)](#E_Assessment_Recommended_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Encounter Performed Act (V2)](#E_Encounter_Performed_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2017-08-01 |
| [Encounter Performed (V4)](#E_Encounter_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2017-08-01 |
| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
| [Principal Diagnosis](#E_Principal_Diagnosis_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.152:2017-08-01 |
| [Admission Source](#E_Admission_Source_V1) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Encounter Order Act (V2)](#E_Encounter_Order_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2017-08-01 |
| [Encounter Order (V4)](#E_Encounter_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2017-08-01 |
| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Encounter Recommended Act (V2)](#E_Encounter_Recommended_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2017-08-01 |
| [Encounter Recommended (V4)](#E_Encounter_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2017-08-01 |
| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Allergy Intolerance](#E_Allergy_Intolerance) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Symptom Concern Act (V3)](#E_Symptom_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2017-08-01 |
| [Symptom (V2)](#E_Symptom_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2017-08-01 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Medication Active (V4)](#E_Medication_Active_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2017-08-01 |
| [Diagnostic Study Order (V4)](#E_Diagnostic_Study_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2017-08-01 |
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| [Diagnostic Study Performed (V4)](#E_Diagnostic_Study_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2017-08-01 |
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| [Facility Location (V2)](#SE_Facility_Location_V2) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 |
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| [Diagnosis Concern Act (V3)](#E_Diagnosis_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2017-08-01 |
| [Diagnosis (V2)](#E_Diagnosis_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2017-08-01 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
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| [Family History Organizer QDM (V4)](#E_Family_History_Organizer_QDM_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2017-08-01 |
| [Family History Observation QDM (V3)](#E_Family_History_Observation_QDM_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2017-08-01 |
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| [Device Order Act (V2)](#E_Device_Order_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2017-08-01 |
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| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Device Recommended Act (V2)](#E_Device_Recommended_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2017-08-01 |
| [Device Recommended (V4)](#E_Device_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2017-08-01 |
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| [Immunization Order (V2)](#E_Immunization_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Intervention Performed (V4)](#E_Intervention_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2017-08-01 |
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| [Intervention Order (V4)](#E_Intervention_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2017-08-01 |
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| [Laboratory Test Order (V4)](#E_Laboratory_Test_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2017-08-01 |
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| [Laboratory Test Recommended (V4)](#E_Laboratory_Test_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2017-08-01 |
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| [Patient Care Experience (V4)](#E_Patient_Care_Experience_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2017-08-01 |
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| [Patient Characteristic Clinical Trial Participant (V4)](#E_Patient_Characteristic_Clinical_Trial) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01 |
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| [Physical Exam Order (V4)](#E_Physical_Exam_Order_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2017-08-01 |
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| [Physical Exam Performed (V4)](#E_Physical_Exam_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2017-08-01 |
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| [Component](#E_Component) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Physical Exam Recommended (V4)](#E_Physical_Exam_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Provider Care Experience (V4)](#E_Provider_Care_Experience_V4_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2017-08-01 |
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| [Substance Recommended (V4)](#E_Substance_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2017-08-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Care Goal (V4)](#E_Care_Goal_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2017-08-01 |
| [Target Outcome (V2)](#E_Target_Outcome_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01 |
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| [Provider Characteristic Observation Assertion (V3)](#E_Provider_Characteristic_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.114:2017-08-01 |
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| [Patient Characteristic Observation Assertion (V4)](#E_Patient_Characteristic_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2017-08-01 |
| [Diagnostic Study Recommended (V4)](#E_Diagnostic_Study_Recommended_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2017-08-01 |
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| [Immunization Administered (V2)](#E_Immunization_Administered_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2017-08-01 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Medication Administered (V4)](#E_Medication_Administered_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2017-08-01 |
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| [Laboratory Test Performed (V4)](#E_Laboratory_Test_Performed_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2017-08-01 |
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| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
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| [Communication Performed](#E_Communication_Performed_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2018-10-01 |
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| [Discharge Medication (V4)](#E_Discharge_Medication_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2018-10-01 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Reaction Observation (V2)](#Reaction_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
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| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
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| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Days Supplied](#E_Days_Supplied_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01 |
| [Medication Dispensed Act (V3)](#E_Medication_Dispensed_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2018-10-01 |
| [Medication Dispensed (V5)](#E_Medication_Dispensed_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2018-10-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Days Supplied](#E_Days_Supplied_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01 |
| [Medication Order (V5)](#E_Medication_Order_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2018-10-01 |
| [Medication Supply Request (V2)](#E_Medication_Supply_Request_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2015-04-05 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Days Supplied](#E_Days_Supplied_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01 |
| [Procedure Order (V5)](#E_Procedure_Order_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2018-10-01 |
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| [Procedure Recommended (V5)](#E_Procedure_Recommended_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2018-10-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
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| [Procedure Performed (V5)](#E_Procedure_Performed_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2018-10-01 |
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| [Status](#E_Status) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.93 |
| [Result Observation (V3)](#E_Result_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Component](#E_Component) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Assessment Order](#E_Assessment_Order_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2018-10-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Device Applied (V5)](#E_Device_Applied_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2018-10-01 |
| [Reason (V3)](#E_Reason_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [QRDA Category I Framework (V4)](#D_QRDA_Category_I_Framework_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01 |
| [Reporting Parameters Section](#S_Reporting_Parameters_Section) | section | urn:oid:2.16.840.1.113883.10.20.17.2.1 |
| [Reporting Parameters Act](#E_Reporting_Parameters_Act) | entry | urn:oid:2.16.840.1.113883.10.20.17.3.8 |
| [Patient Data Section](#S_Patient_Data_Section) | section | urn:oid:2.16.840.1.113883.10.20.17.2.4 |
| [Measure Section](#S_Measure_Section) | section | urn:oid:2.16.840.1.113883.10.20.24.2.2 |
| [Measure Reference](#E_Measure_Reference) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.98 |
| [QRDA Category I Report - CMS (V6)](#D_QRDA_Category_I_Report_CMS_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| [Measure Section QDM](#S_Measure_Section_QDM) | section | urn:oid:2.16.840.1.113883.10.20.24.2.3 |
| [eMeasure Reference QDM](#E_eMeasure_Reference_QDM) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.97 |
| [Reporting Parameters Section - CMS](#S_Reporting_Parameters_Section_CMS) | section | urn:hl7ii:2.16.840.1.113883.10.20.17.2.1.1:2016-03-01 |
| [Reporting Parameters Act - CMS](#E_Reporting_Parameters_Act_CMS) | entry | urn:hl7ii:2.16.840.1.113883.10.20.17.3.8.1:2016-03-01 |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01 |
| [US Realm Patient Name (PTN.US.FIELDED)](#U_US_Realm_Patient_Name_PTNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1 |
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| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
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| [Communication from Patient to Provider (V4)](#E_Comm_from_Patient_to_Provide_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.2:2017-08-01 |
| [Related To](#SE_Related_To) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Communication from Provider to Patient (V4)](#E_Comm_from_Provider_to_Patien_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.3:2017-08-01 |
| [Related To](#SE_Related_To) | subentry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 |
| [Author](#U_Author) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2017-08-01 |
| [Communication from Provider to Provider (V4)](#E_Comm_from_Provider_to_Provid_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.4:2017-08-01 |
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| [Deceased Observation (V3)](#E_Deceased_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [Problem Status](#E_Problem_Status) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.6 |
| [Age Observation](#E_Age_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.31 |
| [Prognosis Observation](#E_Prognosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.113 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Encounter Activity (V3)](#E_Encounter_Activity_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [Problem Status](#E_Problem_Status) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.6 |
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| [Prognosis Observation](#E_Prognosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.113 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Family History Organizer (V3)](#E_Family_History_Organizer_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01 |
| [Family History Observation (V3)](#E_Family_History_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01 |
| [Age Observation](#E_Age_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.31 |
| [Family History Death Observation](#E_Family_History_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.47 |
| [Immunization Activity (V2)](#E_Immunization_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Immunization Refusal Reason](#E_Immunization_Refusal_Reason) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.53 |
| [Reaction Observation (V2)](#Reaction_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
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| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
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| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
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| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
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| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Planned Act (V2)](#E_Planned_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Planned Encounter (V2)](#E_Planned_Encounter_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
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| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Planned Immunization Activity](#E_Planned_Immunization_Activity) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.120 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Planned Medication Activity (V2)](#E_Planned_Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
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| [Planned Observation (V2)](#E_Planned_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09 |
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| [Planned Coverage](#E_Planned_Coverage) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.129 |
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| [Planned Procedure (V2)](#E_Planned_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
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| [Planned Supply (V2)](#E_Planned_Supply_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09 |
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| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
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| [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [Problem Status](#E_Problem_Status) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.6 |
| [Age Observation](#E_Age_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.31 |
| [Prognosis Observation](#E_Prognosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.113 |
| [Priority Preference](#E_Priority_Preference) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
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| [Procedure Activity Act (V2)](#E_Procedure_Activity_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
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| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
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| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
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| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
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| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
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| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
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| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
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| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
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| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
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| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
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| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance or Device Allergy - Intolerance Observation (V2)](#E_Substance_or_Device_Allergy__V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09 |
| [Allergy Status Observation](#E_Allergy_Status_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.28 |
| [Reaction Observation (V2)](#Reaction_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Procedure Activity Procedure (V2)](#E_Procedure_Activity_Procedure_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09 |
| [Service Delivery Location](#E_Service_Delivery_Location) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| [Product Instance](#E_Product_Instance) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Drug Vehicle](#E_Drug_Vehicle) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.24 |
| [Drug Monitoring Act](#E_Drug_Monitoring_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.123 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Medication Dispense (V2)](#E_Medication_Dispense_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [Medication Supply Order (V2)](#E_Medication_Supply_Order_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Immunization Medication Information (V2)](#Immunization_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Substance Administered Act](#E_Substance_Administered_Act) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.118 |
| [Precondition for Substance Administration (V2)](#Precondition_for_Substance_Administrati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09 |
| [Medication Free Text Sig](#E_Medication_Free_Text_Sig) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.147 |
| [Indication (V2)](#Indication_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| [Instruction (V2)](#Instruction_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Severity Observation (V2)](#E_Severity_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09 |
| [Author Participation](#U_Author_Participation) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| [Criticality Observation](#E_Criticality_Observation_) | entry | urn:oid:2.16.840.1.113883.10.20.22.4.145 |
| [Patient Data Section QDM (V6) - CMS](#S_Patient_Data_Section_QDM_V6_CMS) | section | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01 |
| [Patient Characteristic Payer](#E_Patient_Characteristic_Payer_V1) | entry | urn:oid:2.16.840.1.113883.10.20.24.3.55 |

# Code Systems in This Guide

Table 283: Code Systems

| **Name** | **OID** |
| --- | --- |
| Administrative Gender | urn:oid:2.16.840.1.113883.5.1 |
| CDC Vaccine Code (CVX) | urn:oid:2.16.840.1.113883.12.292 |
| CMS Program | urn:oid:2.16.840.1.113883.3.249.7 |
| CPT4 | urn:oid:2.16.840.1.113883.6.12 |
| DCM | urn:oid:1.2.840.10008.2.16.4 |
| FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 |
| Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 |
| HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 |
| HL7ActClass | urn:oid:2.16.840.1.113883.5.6 |
| HL7ActCode | urn:oid:2.16.840.1.113883.5.4 |
| HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 |
| HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 |
| HL7ActReason | urn:oid:2.16.840.1.113883.5.8 |
| HL7ActRelationshipType | urn:oid:2.16.840.1.113883.5.1002 |
| HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 |
| HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 |
| HL7EntityClass | urn:oid:2.16.840.1.113883.5.41 |
| HL7EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 |
| HL7EntityNameUse | urn:oid:2.16.840.1.113883.5.45 |
| HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 |
| HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 |
| HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 |
| HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 |
| HL7ObservationValue | urn:oid:2.16.840.1.113883.5.1063 |
| HL7ParticipationFunction | urn:oid:2.16.840.1.113883.5.88 |
| HL7ParticipationSignature | urn:oid:2.16.840.1.113883.5.89 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| HL7Race | urn:oid:2.16.840.1.113883.5.104 |
| HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 |
| HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 |
| HL7VocabularyDomainQualifier | urn:oid:2.16.840.1.113883.5.147 |
| HSLOC | urn:oid:2.16.840.1.113883.6.259 |
| ICD-10-CM | urn:oid:2.16.840.1.113883.6.90 |
| Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 |
| ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 |
| Language | urn:oid:2.16.840.1.113883.6.121 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| Media Type | urn:oid:2.16.840.1.113883.5.79 |
| NCI Thesaurus (NCIt) | urn:oid:2.16.840.1.113883.3.26.1.1 |
| NDFRT | urn:oid:2.16.840.1.113883.3.26.1.5 |
| NUBC UB-04 Patient Discharge Status code set | urn:oid:2.16.840.1.113883.6.301.5 |
| Provider Role (HL7) | urn:oid:2.16.840.1.113883.3.88.12.3221.4 |
| Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 |
| RxNorm | urn:oid:2.16.840.1.113883.6.88 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 |
| UCUM | urn:oid:2.16.840.1.113883.6.8 |
| Unique Ingredient Identifier (UNII) | urn:oid:2.16.840.1.113883.4.9 |
| USPostalCodes | urn:oid:2.16.840.1.113883.6.231 |

# Changes from Previous Version

QRDA Category I Report - CMS (V6)

[QRDA Category I Report - CMS (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01)](#D_QRDA_Category_I_Report_CMS_V6)

| **Change** | **Old** | **New** |
| --- | --- | --- |
| Status | Published | Draft |
| Name | QRDA Category I Report - CMS (V5) | QRDA Category I Report - CMS (V6) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2018-02-01 | urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2019-02-01 |
| Implied Template | QDM-Based QRDA (V5) (urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2017-08-01) | QDM-Based QRDA (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2018-10-01) |
| CONF #: 4418-28375 Modified | SHALL contain exactly one [1..1] @extension="2018-02-01" (CONF:CMS\_0003). | SHALL contain exactly one [1..1] @extension="2019-02-01" (CONF:CMS\_0003). |
| CONF #: 4418-28415 Modified | This id SHALL contain exactly one [1..1] @extension, which SHALL be selected from ValueSet QRDA I CMS Program Name urn:oid:2.16.840.1.113883.3.249.14.103 STATIC 2018-02-01 (CONF:CMS\_0026).  Note: The value of @extension is CMS Program Name. | This id SHALL contain exactly one [1..1] @extension, which SHALL be selected from ValueSet QRDA I CMS Program Name urn:oid:2.16.840.1.113883.3.249.14.103 STATIC 2019-02-01 (CONF:CMS\_0026).  Note: The value of @extension is CMS Program Name. |

Patient Data Section QDM (V6) - CMS

[Patient Data Section QDM (V6) - CMS (urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01)](#S_Patient_Data_Section_QDM_V6_CMS)

| **Change** | **Old** | **New** |
| --- | --- | --- |
| Status | Published | Draft |
| Name | Patient Data Section QDM (V5) - CMS | Patient Data Section QDM (V6) - CMS |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2018-02-01 | urn:hl7ii:2.16.840.1.113883.10.20.24.2.1.1:2019-02-01 |
| Description | The Patient Data Section QDM (V5) - CMS contains entries that conform to the QDM approach to QRDA. The four supplemental data elements (ONC Administrative Sex, Race, Ethnicity, and Payer) specified in the eCQMs are required to be reported to CMS. While the administrative sex, race, and ethnicity data are sent in the document header, the payer supplemental data element is submitted using the Patient Characteristic Payer template contained in the patient data section. So the Patient Data Section QDM (V5) - CMS shall contain at least one Patient Characteristic Payer template and at least one entry template that is other than the Patient Characteristic Payer template. As for what entry templates and how many entry templates should be included in the patient data section for the referenced eCQMs, it should adhere to the "smoking gun" philosophy described in the QRDA-I standard. This guide follows the specifications of entry templates as defined in the base QRDA-I standard. | The Patient Data Section QDM (V6) - CMS contains entries that conform to the QDM approach to QRDA. The four supplemental data elements (ONC Administrative Sex, Race, Ethnicity, and Payer) specified in the eCQMs are required to be reported to CMS. While the administrative sex, race, and ethnicity data are sent in the document header, the payer supplemental data element is submitted using the Patient Characteristic Payer template contained in the patient data section. So the Patient Data Section QDM (V6) - CMS shall contain at least one Patient Characteristic Payer template and at least one entry template that is other than the Patient Characteristic Payer template. As for what entry templates and how many entry templates should be included in the patient data section for the referenced eCQMs, it should adhere to the "smoking gun" philosophy described in the QRDA I standard. This guide follows the specifications of entry templates as defined in the base QRDA I standard. |
| Implied Template | Patient Data Section QDM (V5) (urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2017-08-01) | Patient Data Section QDM (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2018-10-01) |
| CONF #: 4418-28449 Modified | SHALL contain exactly one [1..1] @extension="2018-02-01" (CONF:CMS\_0038). | SHALL contain exactly one [1..1] @extension="2019-02-01" (CONF:CMS\_0038). |