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Health Quality Measure Format (HQMF)

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Sponsored by:  
Clinical Quality Information Work Group

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| Logical Observation Identifiers Names & Codes (LOINC) | Regenstrief Institute |
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# Structure of this GUIde

Three volumes comprise this *HL7 Version 3 Implementation Guide: Clinical Quality Language (CQL)- based Health Quality Measure Format (HQMF), Release 1 STU4 (US Realm), Standard for Trial Use*:



Figure 1: Relationship between QDM, CQL, eCQM, and the volumes of this IG.

**Volume 1** : Provides narrative introduction, background material, and conformance requirements for representing CQL-based eCQMs in HQMF.

**Volume 2** : Describes how to incorporate version 5.5 of the Quality Data Model into a CQL- based eCQM in accordance with accepted formatting and usage conventions.

**Volume 3** : Contains the HQMF templates for the QDM data elements, necessary for constructing QDM+CQL-based HQMF measures.

# Conformance conventions

Templates and Conformance Statements

Conformance statements within this IG are presented as constraints from the Trifolia Workbench, a template repository. An algorithm converts constraints recorded in Trifolia to a printable presentation. Each constraint is uniquely identified by conformance number at or near the end of the constraint (e.g., CONF:3335-31306). The digits in the conformance number before the hyphen identify which implementation guide the template belongs to and the number after the hyphen is unique to the owning implementation guide. Together, these two numbers uniquely identify each constraint. These identifiers are persistent but not sequential. Conformance numbers in this guide associated with a conformance statement that is carried forward from a previous version of this guide will carry the same conformance number from the previous version. This is true even if the previous conformance statement has been edited. If a conformance statement is entirely new it will have a new conformance number.

Bracketed information following each template title indicates the template type (dataCriteriaSection, populationCriteriaSection, actCriteria, observationCriteria, etc.), the object identifier (OID) or uniform resource name (URN), and whether the template is open or closed. The identifier OID is the templateId/@root value; all templateIds have an @root value. Updated templates also have an @extension value, which is a date identifying the version of this template; such templates are identified by URN and the HL7 version (urn:hl7ii). The URN identifier includes both the @root and @extension value for the templateId (for example, identifier urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2018-05-01).

Each section and entry template in the guide includes a context table. The "Contained By" column indicates which documents or sections use this template and if the template is optional or required in the containing template. The "Contains" column indicates templates contained within this template. Each template also includes a constraint overview table to summarize the constraints in the template. Value set tables, where applicable, and brief XML example figures are included with most explanations.

Template Versioning

A new version of an existing implementation guide reuses templates from the previous version. During the ballot phase or update phase, templates carry the designation “Published” to indicate the template is unchanged from the previous version or “Draft” to indicate a new or revised template. Substantial revisions to previously published templates are indicated by the version number (V2, V3, etc.) in all phases: ballot, update, and published guides.

If there are no substantive changes to a template that has been successfully published, the template will carry the same templateId/@root (identifier oid) and templateId/@extension as in the previous implementation guide. (In the case of older templates, the @extension attribute will not be present.) During a new ballot or update phase, “Published” is appended to the main heading for the template to indicate that the template cannot be commented on in the ballot or update. The “Published” designation is removed in the final publication versions.

Open and Closed Templates

In open templates, all of the features of the HQMF Release 1 Normative base specification are allowed except as constrained by the templates. By contrast, a closed template specifies what is allowed and nothing further may be included. Templates in an HQMF Release 1 Normative document are open. However measure developers should be cautioned that only the elements described in these templates are supported by the Measure Authoring Tool (MAT)[[1]](#footnote-1).

Conformance Verbs

The keywords **SHALL, SHOULD, MAY, NEED NOT, SHOULD NOT,** and **SHALL NOT** in this document are to be interpreted as described in the *HL7 Version 3 Publishing Facilitator's Guide.*

* **SHALL**: an absolute requirement for the particular element. Where a **SHALL** constraint is applied to an XML element, that element must be present in an instance, but may have an exceptional value (i.e., may have a nullFlavor), unless explicitly precluded. Where a **SHALL** constraint is applied to an XML attribute, that attribute must be present, and must contain a conformant value.
* **SHALL NOT**: an absolute prohibition against inclusion
* **SHOULD/SHOULD NOT**: best practice or recommendation. There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course
* **MAY/NEED NOT**: truly optional; can be included or omitted as the author decides with no implications

Cardinality

The cardinality indicator (0..1, 1..1, 1..\*, etc.) specifies the allowable occurrences within a document instance. The cardinality indicators are interpreted with the following format “m...n” where m represents the least and n the most:

0..1 : zero to one

1..1 : exactly one

1..\* : at least one

0..\* : zero or more

1..n : at least one and not more than n

When a constraint has subordinate clauses, the scope of the cardinality of the parent constraint must be clear. In the next figure, the constraint says exactly one code is to be present. The subordinate constraint specifies some additional characteristics of that code.

Vocabulary Conformance

The templates in this document use terms from several code systems. These vocabularies are defined in various supporting specifications and may be maintained by other bodies, as is the case for the LOINC® and SNOMED CT® vocabularies.

Value-set bindings adhere to HL7 Vocabulary Working Group best practices, and include both a conformance verb (**SHALL**, **SHOULD**, **MAY**, etc.) and an indication of **DYNAMIC** vs. **STATIC** binding. Value-set constraints can be **STATIC**, meaning that they are bound to a specified version of a value set, or **DYNAMIC**, meaning that they are bound to the most current version of the value set. A simplified constraint, used when the binding is to a single code, includes the meaning of the code.

In a QDM-based HQMF document, a QDM data type is coupled with a single value set, a grouping value set, or a directly referenced code to become a QDM element. This guide uses the notation “{$QDMElementValueSetOID}” in lieu of a real value set OID to indicate that this is where the value set binding should occur during creation of a QDM element.

A full discussion of the representation of vocabulary is outside the scope of this document; for more information, see the *HL7 Version 3,* Normative Edition sections on Abstract Data Types and XML Data Types R2.

Data Types

HQMF Normative uses the HL7 Version 3 Data Types, Release 2 abstract and Release 2 XML-specific specification. All attributes of a data type are allowed unless explicitly prohibited by this specification.

QDM Attribute Mappings

In a QDM-HQMF template, the QDM data type is mapped to the template, and QDM attributes of the QDM data type are mapped to attributes of the QDM-HQMF template. Attribute-level mapping is indicated within the template via a note.

Asserting an ActCriteria Not Met with a Reason

To specify a QDM element as not done, such as to say a patient was not prescribed with antithrombotic therapy because of contraindication (“Medication, Not Ordered”), this is done through the use of the actionNegationInd attribute (The QDM attribute negation rationale is represented using the actionNegationInd).

The actionNegationInd if true, specifies that the actCriteria indicated was not met. A nested reason for the actCriteria not being met can be represented through an outboundRelationship type of “RSON” to the Reason entry QDM-HQMF template.

XPath Notation

Instead of the traditional dotted notation used by HL7 to represent RIM classes, this document uses XML Path Language (XPath) notation in conformance statements and elsewhere to identify the XML elements and attributes within the HQMF Release 1 Normative document instance to which various constraints are applied. The implicit context of these expressions is the root of the document. This notation provides a mechanism that will be familiar to developers for identifying parts of an XML document.

XPath statements appear in this document in a monospace font.

XPath syntax selects nodes from an XML document using a path containing the context of the node(s). The path is constructed from node names and attribute names (prefixed by an ‘@’) and concatenated with a ‘/’ symbol.

XML Examples and Sample Documents

XML examples appear in figures in this document in this monospace font. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (...).

Within the narrative, XML element (code, measureAttribute, etc.) and attribute (SNOMED CT, 282291009, etc.) names also appear in this monospace font.

# Document

QDM Templates for CQL-Based HQMF Header (V4)

[QualityMeasureDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01 (open)]

Table 1: QDM Templates for CQL-Based HQMF Header (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Measure Description Section](#S_Measure_Description_Section) (optional)  [Population Criteria Section (V2)](#S_Population_Criteria_Section_2) (required)  [Measure Observations Section (V2)](#S_Measure_Observations_Section_V2) (optional)  [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (required) |

This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.5).

Table 2: QDM Templates for CQL-Based HQMF Header (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| QualityMeasureDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01) | | | | | |
| typeId | 1..1 | SHALL |  | [4423-18786](#C_4423-18786) |  |
| @root | 1..1 | SHALL |  | [4423-18787](#C_4423-18787) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [4423-18788](#C_4423-18788) | POQM\_HD000001UV02 |
| templateId | 1..1 | SHALL |  | [4423-18771](#C_4423-18771) |  |
| item | 1..1 | SHALL |  | [4423-18772](#C_4423-18772) |  |
| @root | 1..1 | SHALL |  | [4423-18773](#C_4423-18773) | 2.16.840.1.113883.10.20.28.1.2 |
| @extension | 0..1 | SHALL |  | [4423-33755](#C_4423-33755) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-18542](#C_4423-18542) |  |
| code | 1..1 | SHALL |  | [4423-18575](#C_4423-18575) |  |
| @code | 1..1 | SHALL |  | [4423-18576](#C_4423-18576) | 57024-2 |
| @codeSystem | 1..1 | SHALL |  | [4423-33757](#C_4423-33757) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [4423-18541](#C_4423-18541) |  |
| text | 0..1 | SHOULD |  | [4423-18578](#C_4423-18578) |  |
| statusCode | 1..1 | SHALL |  | [4423-18579](#C_4423-18579) |  |
| @code | 1..1 | SHALL |  | [4423-32666](#C_4423-32666) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY |  | [4423-18789](#C_4423-18789) |  |
| availabilityTime | 0..1 | MAY |  | [4423-18790](#C_4423-18790) |  |
| languageCode | 0..1 | MAY |  | [4423-18791](#C_4423-18791) |  |
| setId | 1..1 | SHALL |  | [4423-18543](#C_4423-18543) |  |
| versionNumber | 0..1 | SHOULD |  | [4423-18544](#C_4423-18544) |  |
| author | 0..\* | SHOULD |  | [4423-18563](#C_4423-18563) |  |
| responsibleParty | 1..1 | SHALL |  | [4423-18564](#C_4423-18564) |  |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4423-18565](#C_4423-18565) |  |
| id | 1..1 | SHALL |  | [4423-18566](#C_4423-18566) |  |
| item | 1..1 | SHALL |  | [4423-18567](#C_4423-18567) |  |
| name | 1..1 | SHALL |  | [4423-18568](#C_4423-18568) |  |
| custodian | 1..1 | SHALL |  | [4423-18555](#C_4423-18555) |  |
| responsibleParty | 1..1 | SHALL |  | [4423-18556](#C_4423-18556) |  |
| @classCode | 1..1 | SHALL |  | [4423-29933](#C_4423-29933) | ASSIGNED |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4423-18557](#C_4423-18557) |  |
| id | 1..1 | SHALL |  | [4423-18558](#C_4423-18558) |  |
| item | 1..1 | SHALL |  | [4423-18559](#C_4423-18559) |  |
| name | 1..1 | SHALL |  | [4423-18560](#C_4423-18560) |  |
| verifier | 0..1 | SHOULD |  | [4423-18754](#C_4423-18754) |  |
| responsibleParty | 1..1 | SHALL |  | [4423-18755](#C_4423-18755) |  |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4423-18756](#C_4423-18756) |  |
| id | 1..1 | SHALL |  | [4423-18757](#C_4423-18757) |  |
| item | 1..1 | SHALL |  | [4423-18758](#C_4423-18758) |  |
| name | 1..1 | SHALL |  | [4423-18759](#C_4423-18759) |  |
| relatedDocument | 1..\* | SHALL |  | [4423-34627](#C_4423-34627) |  |
| expressionDocument | 1..1 | SHALL |  | [4423-34628](#C_4423-34628) |  |
| text | 1..1 | SHALL |  | [4423-34629](#C_4423-34629) |  |
| @mediaType | 1..1 | SHALL |  | [4423-34631](#C_4423-34631) | text/cql |
| reference | 1..1 | SHALL |  | [4423-34630](#C_4423-34630) |  |
| @value | 1..1 | SHALL |  | [4423-34632](#C_4423-34632) |  |
| setId | 1..1 | SHALL |  | [4423-34903](#C_4423-34903) |  |
| @root | 1..1 | SHALL |  | [4423-34908](#C_4423-34908) |  |
| @extension | 1..1 | SHALL |  | [4423-34909](#C_4423-34909) |  |
| relatedDocument | 1..\* | MAY |  | [4423-34898](#C_4423-34898) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34902](#C_4423-34902) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = XCRPT |
| componentQualityMeasureDocument | 1..1 | SHALL |  | [4423-34904](#C_4423-34904) |  |
| id | 1..1 | SHALL |  | [4423-34905](#C_4423-34905) |  |
| @root | 1..1 | SHALL |  | [4423-34910](#C_4423-34910) |  |
| @identifierName | 0..1 | SHOULD |  | [4423-34911](#C_4423-34911) |  |
| setId | 0..1 | SHOULD |  | [4423-34906](#C_4423-34906) |  |
| @root | 1..1 | SHALL |  | [4423-34912](#C_4423-34912) |  |
| versionNumber | 0..1 | SHOULD |  | [4423-34907](#C_4423-34907) |  |
| controlVariable | 1..1 | SHALL |  | [4423-18545](#C_4423-18545) |  |
| measurePeriod | 1..1 | SHALL |  | [4423-18546](#C_4423-18546) |  |
| code | 1..1 | SHALL |  | [4423-18547](#C_4423-18547) |  |
| @code | 1..1 | SHALL |  | [4423-18548](#C_4423-18548) | MSRTP |
| @codeSystem | 1..1 | SHALL |  | [4423-30056](#C_4423-30056) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL |  | [4423-18550](#C_4423-18550) |  |
| subjectOf | 1..1 | SHALL |  | [4423-18580](#C_4423-18580) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18581](#C_4423-18581) |  |
| code | 1..1 | SHALL |  | [4423-18582](#C_4423-18582) |  |
| @code | 1..1 | SHALL |  | [4423-18583](#C_4423-18583) | MSRSCORE |
| @codeSystem | 1..1 | SHALL |  | [4423-30057](#C_4423-30057) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29935](#C_4423-29935) |  |
| @code | 1..1 | SHALL |  | [4423-29936](#C_4423-29936) | urn:oid:2.16.840.1.113883.1.11.20367 (ObservationMeasureScoring) |
| subjectOf | 1..\* | SHALL |  | [4423-18588](#C_4423-18588) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18590](#C_4423-18590) |  |
| code | 1..1 | SHALL |  | [4423-18591](#C_4423-18591) |  |
| @code | 1..1 | SHALL |  | [4423-29934](#C_4423-29934) | MSRTYPE |
| @codeSystem | 1..1 | SHALL |  | [4423-30058](#C_4423-30058) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29938](#C_4423-29938) |  |
| @code | 1..1 | SHALL |  | [4423-29939](#C_4423-29939) | urn:oid:2.16.840.1.113883.1.11.20368 (ObservationMeasureType) |
| subjectOf | 0..1 | SHOULD |  | [4423-18603](#C_4423-18603) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18604](#C_4423-18604) |  |
| code | 1..1 | SHALL |  | [4423-18605](#C_4423-18605) |  |
| @code | 1..1 | SHALL |  | [4423-29941](#C_4423-29941) | COPY |
| @codeSystem | 1..1 | SHALL |  | [4423-30060](#C_4423-30060) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18609](#C_4423-18609) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18610](#C_4423-18610) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18611](#C_4423-18611) |  |
| code | 1..1 | SHALL |  | [4423-18612](#C_4423-18612) |  |
| @code | 1..1 | SHALL |  | [4423-18613](#C_4423-18613) | CRS |
| @codeSystem | 1..1 | SHALL |  | [4423-30061](#C_4423-30061) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29942](#C_4423-29942) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18617](#C_4423-18617) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18618](#C_4423-18618) |  |
| code | 1..1 | SHALL |  | [4423-18619](#C_4423-18619) |  |
| @code | 1..1 | SHALL |  | [4423-18620](#C_4423-18620) | GUIDE |
| @codeSystem | 1..1 | SHALL |  | [4423-30062](#C_4423-30062) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29943](#C_4423-29943) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18624](#C_4423-18624) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18625](#C_4423-18625) |  |
| code | 1..1 | SHALL |  | [4423-18626](#C_4423-18626) |  |
| @code | 1..1 | SHALL |  | [4423-18627](#C_4423-18627) | DEF |
| @codeSystem | 1..1 | SHALL |  | [4423-30063](#C_4423-30063) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18690](#C_4423-18690) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18630](#C_4423-18630) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18631](#C_4423-18631) |  |
| code | 1..1 | SHALL |  | [4423-18632](#C_4423-18632) |  |
| @code | 1..1 | SHALL |  | [4423-18633](#C_4423-18633) | IDUR |
| @codeSystem | 1..1 | SHALL |  | [4423-30064](#C_4423-30064) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18636](#C_4423-18636) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18637](#C_4423-18637) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18638](#C_4423-18638) |  |
| code | 1..1 | SHALL |  | [4423-18639](#C_4423-18639) |  |
| @code | 1..1 | SHALL |  | [4423-18640](#C_4423-18640) | KEY |
| @codeSystem | 1..1 | SHALL |  | [4423-30065](#C_4423-30065) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| subjectOf | 0..1 | SHOULD |  | [4423-18644](#C_4423-18644) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18645](#C_4423-18645) |  |
| code | 1..1 | SHALL |  | [4423-18646](#C_4423-18646) |  |
| @code | 1..1 | SHALL |  | [4423-18647](#C_4423-18647) | MSRAGG |
| @codeSystem | 1..1 | SHALL |  | [4423-30066](#C_4423-30066) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18649](#C_4423-18649) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18650](#C_4423-18650) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18651](#C_4423-18651) |  |
| code | 1..1 | SHALL |  | [4423-18652](#C_4423-18652) |  |
| @code | 1..1 | SHALL |  | [4423-18653](#C_4423-18653) | MSRADJ |
| @codeSystem | 1..1 | SHALL |  | [4423-30067](#C_4423-30067) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18656](#C_4423-18656) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18657](#C_4423-18657) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18658](#C_4423-18658) |  |
| code | 1..1 | SHALL |  | [4423-18659](#C_4423-18659) |  |
| @code | 1..1 | SHALL |  | [4423-18663](#C_4423-18663) | RAT |
| @codeSystem | 1..1 | SHALL |  | [4423-30068](#C_4423-30068) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18662](#C_4423-18662) |  |
| subjectOf | 0..\* | SHOULD |  | [4423-18664](#C_4423-18664) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18665](#C_4423-18665) |  |
| code | 1..1 | SHALL |  | [4423-18666](#C_4423-18666) |  |
| @code | 1..1 | SHALL |  | [4423-18667](#C_4423-18667) | REF |
| @codeSystem | 1..1 | SHALL |  | [4423-30069](#C_4423-30069) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18668](#C_4423-18668) |  |
| subjectOf | 0..\* | SHOULD |  | [4423-18669](#C_4423-18669) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18670](#C_4423-18670) |  |
| code | 1..1 | SHALL |  | [4423-18671](#C_4423-18671) |  |
| @code | 1..1 | SHALL |  | [4423-18672](#C_4423-18672) | MSRSET |
| @codeSystem | 1..1 | SHALL |  | [4423-30070](#C_4423-30070) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29950](#C_4423-29950) | urn:oid:2.16.840.1.113883.1.11.16927 (RoleClassServiceDeliveryLocation) |
| subjectOf | 0..1 | SHOULD |  | [4423-18674](#C_4423-18674) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18675](#C_4423-18675) |  |
| code | 1..1 | SHALL |  | [4423-18676](#C_4423-18676) |  |
| @code | 1..1 | SHALL |  | [4423-18677](#C_4423-18677) | MSRJUR |
| @codeSystem | 1..1 | SHALL |  | [4423-30071](#C_4423-30071) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29951](#C_4423-29951) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18679](#C_4423-18679) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18680](#C_4423-18680) |  |
| code | 1..1 | SHALL |  | [4423-18681](#C_4423-18681) |  |
| @code | 1..1 | SHALL |  | [4423-29952](#C_4423-29952) | MSRTOPIC |
| @codeSystem | 1..1 | SHALL |  | [4423-30072](#C_4423-30072) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29953](#C_4423-29953) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18691](#C_4423-18691) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18692](#C_4423-18692) |  |
| code | 1..1 | SHALL |  | [4423-18693](#C_4423-18693) |  |
| @code | 1..1 | SHALL |  | [4423-18694](#C_4423-18694) | MSRRPTR |
| @codeSystem | 1..1 | SHALL |  | [4423-30073](#C_4423-30073) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4423-29954](#C_4423-29954) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18698](#C_4423-18698) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18699](#C_4423-18699) |  |
| code | 1..1 | SHALL |  | [4423-18700](#C_4423-18700) |  |
| @code | 1..1 | SHALL |  | [4423-18701](#C_4423-18701) | MSRRPTTIME |
| @codeSystem | 1..1 | SHALL |  | [4423-30074](#C_4423-30074) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | PQ | [4423-29955](#C_4423-29955) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18705](#C_4423-18705) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18706](#C_4423-18706) |  |
| code | 1..1 | SHALL |  | [4423-18707](#C_4423-18707) |  |
| @code | 1..1 | SHALL |  | [4423-30075](#C_4423-30075) | USE |
| @codeSystem | 1..1 | SHALL |  | [4423-30076](#C_4423-30076) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18711](#C_4423-18711) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18712](#C_4423-18712) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18713](#C_4423-18713) |  |
| code | 1..1 | SHALL |  | [4423-18714](#C_4423-18714) |  |
| @code | 1..1 | SHALL |  | [4423-18715](#C_4423-18715) | SDE |
| @codeSystem | 1..1 | SHALL |  | [4423-30077](#C_4423-30077) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18718](#C_4423-18718) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18719](#C_4423-18719) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18720](#C_4423-18720) |  |
| code | 1..1 | SHALL |  | [4423-18721](#C_4423-18721) |  |
| @code | 1..1 | SHALL |  | [4423-29956](#C_4423-29956) | TRANF |
| @codeSystem | 1..1 | SHALL |  | [4423-30078](#C_4423-30078) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18725](#C_4423-18725) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18726](#C_4423-18726) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18727](#C_4423-18727) |  |
| code | 1..1 | SHALL |  | [4423-18728](#C_4423-18728) |  |
| @code | 1..1 | SHALL |  | [4423-18729](#C_4423-18729) | STRAT |
| @codeSystem | 1..1 | SHALL |  | [4423-30079](#C_4423-30079) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18732](#C_4423-18732) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18733](#C_4423-18733) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18734](#C_4423-18734) |  |
| code | 1..1 | SHALL |  | [4423-18735](#C_4423-18735) |  |
| @code | 1..1 | SHALL |  | [4423-18736](#C_4423-18736) | IPOP |
| @codeSystem | 1..1 | SHALL |  | [4423-30080](#C_4423-30080) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18739](#C_4423-18739) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18740](#C_4423-18740) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18741](#C_4423-18741) |  |
| code | 1..1 | SHALL |  | [4423-18742](#C_4423-18742) |  |
| @code | 1..1 | SHALL |  | [4423-29957](#C_4423-29957) | DENOM |
| @codeSystem | 1..1 | SHALL |  | [4423-30081](#C_4423-30081) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18746](#C_4423-18746) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-18747](#C_4423-18747) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-18748](#C_4423-18748) |  |
| code | 1..1 | SHALL |  | [4423-18749](#C_4423-18749) |  |
| @code | 1..1 | SHALL |  | [4423-29958](#C_4423-29958) | DENEX |
| @codeSystem | 1..1 | SHALL |  | [4423-30082](#C_4423-30082) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-18753](#C_4423-18753) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29959](#C_4423-29959) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29960](#C_4423-29960) |  |
| code | 1..1 | SHALL |  | [4423-30083](#C_4423-30083) |  |
| @code | 1..1 | SHALL |  | [4423-30084](#C_4423-30084) | NUMER |
| @codeSystem | 1..1 | SHALL |  | [4423-30085](#C_4423-30085) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29962](#C_4423-29962) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29963](#C_4423-29963) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29964](#C_4423-29964) |  |
| code | 1..1 | SHALL |  | [4423-29965](#C_4423-29965) |  |
| @code | 1..1 | SHALL |  | [4423-29967](#C_4423-29967) | NUMEX |
| @codeSystem | 1..1 | SHALL |  | [4423-30086](#C_4423-30086) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29966](#C_4423-29966) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29968](#C_4423-29968) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29969](#C_4423-29969) |  |
| code | 1..1 | SHALL |  | [4423-29970](#C_4423-29970) |  |
| @code | 1..1 | SHALL |  | [4423-29971](#C_4423-29971) | DENEXCEP |
| @codeSystem | 1..1 | SHALL |  | [4423-30087](#C_4423-30087) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29972](#C_4423-29972) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29973](#C_4423-29973) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29974](#C_4423-29974) |  |
| code | 1..1 | SHALL |  | [4423-29975](#C_4423-29975) |  |
| @code | 1..1 | SHALL |  | [4423-29976](#C_4423-29976) | MSRPOPL |
| @codeSystem | 1..1 | SHALL |  | [4423-30088](#C_4423-30088) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29977](#C_4423-29977) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29978](#C_4423-29978) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29979](#C_4423-29979) |  |
| code | 1..1 | SHALL |  | [4423-29980](#C_4423-29980) |  |
| @code | 1..1 | SHALL |  | [4423-29981](#C_4423-29981) | MSRPOPLEX |
| @codeSystem | 1..1 | SHALL |  | [4423-30089](#C_4423-30089) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29982](#C_4423-29982) |  |
| subjectOf | 0..1 | SHOULD |  | [4423-29984](#C_4423-29984) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-29985](#C_4423-29985) |  |
| code | 1..1 | SHALL |  | [4423-29986](#C_4423-29986) |  |
| @code | 1..1 | SHALL |  | [4423-29987](#C_4423-29987) | DISC |
| @codeSystem | 1..1 | SHALL |  | [4423-30090](#C_4423-30090) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4423-29988](#C_4423-29988) |  |
| subjectOf | 0..1 | MAY |  | [4423-34637](#C_4423-34637) |  |
| measureAttribute | 1..1 | SHALL |  | [4423-34638](#C_4423-34638) |  |
| code | 1..1 | SHALL |  | [4423-34639](#C_4423-34639) |  |
| @code | 1..1 | SHALL |  | [4423-34640](#C_4423-34640) | CMPMSRMTH |
| @codeSystem | 1..1 | SHALL |  | [4423-34641](#C_4423-34641) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4423-34642](#C_4423-34642) |  |
| @code | 1..1 | SHALL |  | [4423-34643](#C_4423-34643) |  |
| component | 1..\* | SHALL |  | [4423-18813](#C_4423-18813) |  |
| component | 1..1 | SHALL |  | [4423-18815](#C_4423-18815) |  |
| dataCriteriaSection | 1..1 | SHALL |  | [4423-35955](#C_4423-35955) | [Data Criteria Section (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01](#S_Data_Criteria_Section_V4) |
| component | 1..\* | SHALL |  | [4423-19057](#C_4423-19057) |  |
| populationCriteriaSection | 1..1 | SHALL |  | [4423-19058](#C_4423-19058) | [Population Criteria Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01](#S_Population_Criteria_Section_2) |
| component | 0..1 | MAY |  | [4423-29989](#C_4423-29989) |  |
| measureDescriptionSection | 1..1 | SHALL |  | [4423-29990](#C_4423-29990) | [Measure Description Section (identifier: urn:oid:2.16.840.1.113883.10.20.28.2.3](#S_Measure_Description_Section) |
| component | 0..1 | MAY |  | [4423-29991](#C_4423-29991) |  |
| measureObservationsSection | 1..1 | SHALL |  | [4423-29992](#C_4423-29992) | [Measure Observations Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01](#S_Measure_Observations_Section_V2) |

1. SHALL contain exactly one [1..1] typeId (CONF:4423-18786).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:4423-18787).
   2. This typeId SHALL contain exactly one [1..1] @extension="POQM\_HD000001UV02" (CONF:4423-18788).
2. SHALL contain exactly one [1..1] templateId (CONF:4423-18771).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-18772) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.1.2" (CONF:4423-18773).
      2. SHALL contain zero or one [0..1] @extension="2019-05-01" (CONF:4423-33755).
3. SHALL contain exactly one [1..1] id (CONF:4423-18542).
4. SHALL contain exactly one [1..1] code (CONF:4423-18575).
   1. This code SHALL contain exactly one [1..1] @code="57024-2" Health Quality Measure Document (CONF:4423-18576).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4423-33757).
5. SHALL contain exactly one [1..1] title (CONF:4423-18541).
6. SHOULD contain zero or one [0..1] text (CONF:4423-18578).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-18579).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32666).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-18789).
9. MAY contain zero or one [0..1] availabilityTime (CONF:4423-18790).
10. MAY contain zero or one [0..1] languageCode (CONF:4423-18791).
11. SHALL contain exactly one [1..1] setId (CONF:4423-18543).
12. SHOULD contain zero or one [0..1] versionNumber (CONF:4423-18544).
13. SHOULD contain zero or more [0..\*] author (CONF:4423-18563).
    1. The author, if present, SHALL contain exactly one [1..1] responsibleParty (CONF:4423-18564).
       1. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4423-18565).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4423-18566).
             1. This id SHALL contain exactly one [1..1] item (CONF:4423-18567).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4423-18568).
14. SHALL contain exactly one [1..1] custodian (CONF:4423-18555).
    1. This custodian SHALL contain exactly one [1..1] responsibleParty (CONF:4423-18556).
       1. This responsibleParty SHALL contain exactly one [1..1] @classCode="ASSIGNED" (CONF:4423-29933).
       2. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4423-18557).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4423-18558).
             1. This id SHALL contain exactly one [1..1] item (CONF:4423-18559).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4423-18560).
15. SHOULD contain zero or one [0..1] verifier (CONF:4423-18754).
    1. The verifier, if present, SHALL contain exactly one [1..1] responsibleParty (CONF:4423-18755).
       1. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4423-18756).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4423-18757).
             1. This id SHALL contain exactly one [1..1] item (CONF:4423-18758).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4423-18759).
16. SHALL contain at least one [1..\*] relatedDocument (CONF:4423-34627) such that it
    1. SHALL contain exactly one [1..1] expressionDocument (CONF:4423-34628).
       1. This expressionDocument SHALL contain exactly one [1..1] text (CONF:4423-34629).
          1. This text SHALL contain exactly one [1..1] @mediaType="text/cql" (CONF:4423-34631).
          2. This text SHALL contain exactly one [1..1] reference (CONF:4423-34630).
             1. This reference SHALL contain exactly one [1..1] @value (CONF:4423-34632).  
                Note: This value contains a URI (relative or absolute) that identifies the CQL expression document.
       2. This expressionDocument SHALL contain exactly one [1..1] setId (CONF:4423-34903).
          1. This setId SHALL contain exactly one [1..1] @root (CONF:4423-34908).
          2. This setId SHALL contain exactly one [1..1] @extension (CONF:4423-34909).
17. MAY contain at least one [1..\*] relatedDocument (CONF:4423-34898) such that it
    1. SHALL contain exactly one [1..1] @typeCode="XCRPT" Excerpts (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34902).
    2. SHALL contain exactly one [1..1] componentQualityMeasureDocument (CONF:4423-34904).
       1. This componentQualityMeasureDocument SHALL contain exactly one [1..1] id (CONF:4423-34905).
          1. This id SHALL contain exactly one [1..1] @root (CONF:4423-34910).  
             Note: The id of the component eCQM
          2. This id SHOULD contain zero or one [0..1] @identifierName (CONF:4423-34911).  
             Note: The title of the component eCQM
       2. This componentQualityMeasureDocument SHOULD contain zero or one [0..1] setId (CONF:4423-34906).
          1. The setId, if present, SHALL contain exactly one [1..1] @root (CONF:4423-34912).  
             Note: The setId of the component eCQM
       3. This componentQualityMeasureDocument SHOULD contain zero or one [0..1] versionNumber (CONF:4423-34907).
          1. VersionNumber SHALL be present if the setId element is present and if present, it SHALL have a value attribute that is the versionNumber of the component eCQM (CONF:4423-34913).
18. SHALL contain exactly one [1..1] controlVariable (CONF:4423-18545).
    1. This controlVariable SHALL contain exactly one [1..1] measurePeriod (CONF:4423-18546).
       1. This measurePeriod SHALL contain exactly one [1..1] code (CONF:4423-18547).
          1. This code SHALL contain exactly one [1..1] @code="MSRTP" Measurement Period (CONF:4423-18548).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30056).
       2. This measurePeriod SHALL contain exactly one [1..1] value (CONF:4423-18550).  
          Note: Measure period could be either an IVL\_TS or a PIVL\_TS data type. Refer to the HQMF Normative Release 1 standard for details.
19. SHALL contain exactly one [1..1] subjectOf (CONF:4423-18580) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18581).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18582).
          1. This code SHALL contain exactly one [1..1] @code="MSRSCORE" Measure Scoring (CONF:4423-18583).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30057).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-29935).
          1. This value SHALL contain exactly one [1..1] @code (ValueSet: ObservationMeasureScoring urn:oid:2.16.840.1.113883.1.11.20367) (CONF:4423-29936).
20. SHALL contain at least one [1..\*] subjectOf (CONF:4423-18588) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18590).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18591).
          1. This code SHALL contain exactly one [1..1] @code="MSRTYPE" Measure Type (CONF:4423-29934).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30058).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-29938).
          1. This value SHALL contain exactly one [1..1] @code (ValueSet: ObservationMeasureType urn:oid:2.16.840.1.113883.1.11.20368) (CONF:4423-29939).
21. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18603) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18604).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18605).
          1. This code SHALL contain exactly one [1..1] @code="COPY" Copyright (CONF:4423-29941).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30060).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18609).
22. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18610) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18611).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18612).
          1. This code SHALL contain exactly one [1..1] @code="CRS" Clinical Recommendation Statement (CONF:4423-18613).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30061).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29942).
23. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18617) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18618).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18619).
          1. This code SHALL contain exactly one [1..1] @code="GUIDE" Guide (CONF:4423-18620).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30062).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29943).
24. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18624) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18625).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18626).
          1. This code SHALL contain exactly one [1..1] @code="DEF" Definition (CONF:4423-18627).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30063).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18690).
25. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18630) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18631).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18632).
          1. This code SHALL contain exactly one [1..1] @code="IDUR" Improvement Notation (CONF:4423-18633).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30064).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18636).
26. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18637) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18638).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18639).
          1. This code SHALL contain exactly one [1..1] @code="KEY" Keyword (CONF:4423-18640).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30065).
27. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18644) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18645).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18646).
          1. This code SHALL contain exactly one [1..1] @code="MSRAGG" Rate Aggregation (CONF:4423-18647).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30066).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18649).
28. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18650) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18651).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18652).
          1. This code SHALL contain exactly one [1..1] @code="MSRADJ" Risk Adjustment (CONF:4423-18653).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30067).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18656).
29. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18657) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18658).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18659).
          1. This code SHALL contain exactly one [1..1] @code="RAT" Rationale (CONF:4423-18663).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30068).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18662).
30. SHOULD contain zero or more [0..\*] subjectOf (CONF:4423-18664) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18665).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18666).
          1. This code SHALL contain exactly one [1..1] @code="REF" Reference (CONF:4423-18667).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30069).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18668).
31. SHOULD contain zero or more [0..\*] subjectOf (CONF:4423-18669) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18670).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18671).
          1. This code SHALL contain exactly one [1..1] @code="MSRSET" Care Setting (CONF:4423-18672).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30070).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (ValueSet: RoleClassServiceDeliveryLocation urn:oid:2.16.840.1.113883.1.11.16927) (CONF:4423-29950).
32. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18674) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18675).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18676).
          1. This code SHALL contain exactly one [1..1] @code="MSRJUR" Jurisdiction (CONF:4423-18677).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30071).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-29951).
33. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18679) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18680).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18681).
          1. This code SHALL contain exactly one [1..1] @code="MSRTOPIC" Topic Type (CONF:4423-29952).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30072).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-29953).
34. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18691) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18692).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18693).
          1. This code SHALL contain exactly one [1..1] @code="MSRRPTR" Reporter Type (CONF:4423-18694).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30073).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-29954).
35. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18698) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18699).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18700).
          1. This code SHALL contain exactly one [1..1] @code="MSRRPTTIME" Timeframe for Reporting (CONF:4423-18701).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30074).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:4423-29955).
36. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18705) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18706).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18707).
          1. This code SHALL contain exactly one [1..1] @code="USE" Notice of Use (CONF:4423-30075).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30076).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18711).
37. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18712) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18713).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18714).
          1. This code SHALL contain exactly one [1..1] @code="SDE" Supplemental Data Elements (CONF:4423-18715).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30077).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18718).
38. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18719) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18720).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18721).
          1. This code SHALL contain exactly one [1..1] @code="TRANF" Transmission Format (CONF:4423-29956).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30078).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18725).
39. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18726) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18727).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18728).
          1. This code SHALL contain exactly one [1..1] @code="STRAT" Stratification (CONF:4423-18729).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30079).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18732).
40. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18733) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18734).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18735).
          1. This code SHALL contain exactly one [1..1] @code="IPOP" Initial Population (CONF:4423-18736).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30080).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18739).
41. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18740) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18741).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18742).
          1. This code SHALL contain exactly one [1..1] @code="DENOM" Denominator (CONF:4423-29957).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30081).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18746).
42. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-18747) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-18748).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-18749).
          1. This code SHALL contain exactly one [1..1] @code="DENEX" Denominator Exclusion (CONF:4423-29958).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30082).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-18753).
43. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29959) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29960).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-30083).
          1. This code SHALL contain exactly one [1..1] @code="NUMER" Numerator (CONF:4423-30084).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30085).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29962).
44. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29963) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29964).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-29965).
          1. This code SHALL contain exactly one [1..1] @code="NUMEX" Numerator Exclusion (CONF:4423-29967).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30086).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29966).
45. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29968) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29969).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-29970).
          1. This code SHALL contain exactly one [1..1] @code="DENEXCEP" Denominator Exception (CONF:4423-29971).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30087).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29972).
46. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29973) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29974).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-29975).
          1. This code SHALL contain exactly one [1..1] @code="MSRPOPL" Measure Population (CONF:4423-29976).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30088).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29977).
47. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29978) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29979).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-29980).
          1. This code SHALL contain exactly one [1..1] @code="MSRPOPLEX" Measure Population Exclusions  (CONF:4423-29981).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30089).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29982).
48. SHOULD contain zero or one [0..1] subjectOf (CONF:4423-29984) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-29985).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-29986).
          1. This code SHALL contain exactly one [1..1] @code="DISC" Disclaimer (CONF:4423-29987).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30090).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4423-29988).
49. MAY contain zero or one [0..1] subjectOf (CONF:4423-34637) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4423-34638).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4423-34639).
          1. This code SHALL contain exactly one [1..1] @code="CMPMSRMTH" composite measure method (CONF:4423-34640).
          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:4423-34641).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34642).
          1. This value SHALL contain exactly one [1..1] @code (CONF:4423-34643).  
             Note: Will add a valueset that contain the following codes: "OPPORSCR","ALLORNONESCR","LINEARSCR","WEIGHTSCR"
50. SHALL contain at least one [1..\*] component (CONF:4423-18813).
51. SHALL contain exactly one [1..1] component (CONF:4423-18815) such that it
    1. SHALL contain exactly one [1..1] [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01) (CONF:4423-35955).
52. SHALL contain at least one [1..\*] component (CONF:4423-19057) such that it
    1. SHALL contain exactly one [1..1] [Population Criteria Section (V2)](#S_Population_Criteria_Section_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01) (CONF:4423-19058).
53. MAY contain zero or one [0..1] component (CONF:4423-29989) such that it
    1. SHALL contain exactly one [1..1] [Measure Description Section](#S_Measure_Description_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.28.2.3) (CONF:4423-29990).
54. MAY contain zero or one [0..1] component (CONF:4423-29991) such that it
    1. SHALL contain exactly one [1..1] [Measure Observations Section (V2)](#S_Measure_Observations_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01) (CONF:4423-29992).

# Section

Data Criteria Section (V4)

[dataCriteriaSection: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01 (open)]

Table 3: Data Criteria Section (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) (optional)  [Patient Characteristic Birth Date](#E_Patient_Characteristic_Birth_Date) (optional)  [Patient Characteristic Ethnicity](#E_Patient_Characteristic_Ethnicity) (optional)  [Patient Characteristic Expired](#E_Patient_Characteristic_Expired_V1) (optional)  [Patient Characteristic Payer](#E_Patient_Characteristic_Payer) (optional)  [Patient Characteristic Race](#E_Patient_Characteristic_Race) (optional)  [Patient Characteristic Sex](#E_Patient_Characteristic_Sex) (optional)  [Patient Characteristic (V2)](#E_Patient_Characteristic_V2) (optional)  [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Family History (V2)](#E_Family_History_V2) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Active (V4)](#E_Medication_Active_V4_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (optional)  [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Substance, Administered (V4)](#E_Substance_Administered_V4) (optional)  [Program Participation (V3)](#E_Program_Participation_V3) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional)  [Related Person](#E_Related_Person_) (optional) |

The Data Criteria Section contains the criteria describing the data of interest to a measure.

Table 4: Data Criteria Section (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| dataCriteriaSection (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4423-18804](#C_4423-18804) |  |
| item | 1..1 | SHALL |  | [4423-18805](#C_4423-18805) |  |
| @root | 1..1 | SHALL |  | [4423-18806](#C_4423-18806) | 2.16.840.1.113883.10.20.28.2.6 |
| @extension | 1..1 | SHALL |  | [4423-33440](#C_4423-33440) | 2019-05-01 |
| id | 0..1 | MAY |  | [4423-18856](#C_4423-18856) |  |
| code | 1..1 | SHALL |  | [4423-18807](#C_4423-18807) |  |
| @code | 1..1 | SHALL |  | [4423-18808](#C_4423-18808) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57025-9 |
| @codeSystem | 1..1 | SHALL |  | [4423-30091](#C_4423-30091) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [4423-18857](#C_4423-18857) |  |
| @value | 1..1 | SHALL |  | [4423-18964](#C_4423-18964) | Data Criteria Section |
| text | 1..1 | SHALL |  | [4423-18858](#C_4423-18858) |  |
| entry | 1..\* | SHALL |  | [4423-18853](#C_4423-18853) |  |
| entry | 0..\* | MAY |  | [4423-34258](#C_4423-34258) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34259](#C_4423-34259) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34260](#C_4423-34260) | [Adverse Event (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01](#E_Adverse_Event_V3) |
| entry | 0..\* | MAY |  | [4423-34261](#C_4423-34261) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34262](#C_4423-34262) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34263](#C_4423-34263) | [Allergy Intolerance (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01](#E_Allergy_Intolerance_V3) |
| entry | 0..\* | MAY |  | [4423-34176](#C_4423-34176) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34177](#C_4423-34177) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34178](#C_4423-34178) | [Assessment, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01](#E_Assessment_Performed_V3) |
| entry | 0..\* | MAY |  | [4423-34179](#C_4423-34179) |  |
| typeId | 1..1 | SHALL |  | [4423-34180](#C_4423-34180) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34181](#C_4423-34181) | [Assessment, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01](#E_Assessment_Recommended_V3) |
| entry | 0..\* | MAY |  | [4423-34678](#C_4423-34678) |  |
| typeId | 1..1 | SHALL |  | [4423-34680](#C_4423-34680) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34679](#C_4423-34679) | [Assessment, Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01](#E_Assessment_Order_V2) |
| entry | 0..\* | MAY |  | [4423-32667](#C_4423-32667) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32668](#C_4423-32668) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32669](#C_4423-32669) | [Care Goal (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01](#E_Care_Goal_V3_) |
| entry | 0..\* | MAY |  | [4423-34850](#C_4423-34850) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34852](#C_4423-34852) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4423-34851](#C_4423-34851) | [Communication, Performed (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01](#E_Communication_Performed_V2) |
| entry | 0..\* | MAY |  | [4423-32685](#C_4423-32685) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32686](#C_4423-32686) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4423-32687](#C_4423-32687) | [Device, Applied (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01](#E_Device_Applied_V3_) |
| entry | 0..\* | MAY |  | [4423-32691](#C_4423-32691) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32692](#C_4423-32692) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4423-32693](#C_4423-32693) | [Device, Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01](#E_Device_Order_V2_) |
| entry | 0..\* | MAY |  | [4423-32694](#C_4423-32694) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32695](#C_4423-32695) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4423-32696](#C_4423-32696) | [Device, Recommended (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01](#E_Device_Recommended_V2_) |
| entry | 0..\* | MAY |  | [4423-34055](#C_4423-34055) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34056](#C_4423-34056) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34057](#C_4423-34057) | [Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01](#E_Diagnosis_V3) |
| entry | 0..\* | MAY |  | [4423-34038](#C_4423-34038) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34039](#C_4423-34039) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34040](#C_4423-34040) | [Family History (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01](#E_Family_History_V2) |
| entry | 0..\* | MAY |  | [4423-32715](#C_4423-32715) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32716](#C_4423-32716) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32717](#C_4423-32717) | [Diagnostic Study, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01](#E_Diagnostic_Study_Order_V4_) |
| entry | 0..\* | MAY |  | [4423-32718](#C_4423-32718) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32719](#C_4423-32719) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32720](#C_4423-32720) | [Diagnostic Study, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01](#E_Diagnostic_Study_Performed_V3_) |
| entry | 0..\* | MAY |  | [4423-32721](#C_4423-32721) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32722](#C_4423-32722) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32723](#C_4423-32723) | [Diagnostic Study, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01](#E_Diagnostic_Study_Recommended_V4_) |
| entry | 0..\* | MAY |  | [4423-32730](#C_4423-32730) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32731](#C_4423-32731) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4423-32732](#C_4423-32732) | [Encounter, Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01](#E_Encounter_Order_V2_) |
| entry | 0..\* | MAY |  | [4423-32733](#C_4423-32733) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32734](#C_4423-32734) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4423-32735](#C_4423-32735) | [Encounter, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01](#E_Encounter_Performed_V3_) |
| entry | 0..\* | MAY |  | [4423-32736](#C_4423-32736) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32737](#C_4423-32737) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4423-32738](#C_4423-32738) | [Encounter, Recommended (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01](#E_Encounter_Recommended_V2_) |
| entry | 0..\* | MAY |  | [4423-32757](#C_4423-32757) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32758](#C_4423-32758) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4423-32759](#C_4423-32759) | [Intervention, Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01](#E_Intervention_Order_V2_) |
| entry | 0..\* | MAY |  | [4423-32760](#C_4423-32760) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32761](#C_4423-32761) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4423-32762](#C_4423-32762) | [Intervention, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01](#E_Intervention_Performed_V3_) |
| entry | 0..\* | MAY |  | [4423-32763](#C_4423-32763) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32764](#C_4423-32764) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4423-32765](#C_4423-32765) | [Intervention, Recommended (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01](#E_Intervention_Recommended_V2_) |
| entry | 0..\* | MAY |  | [4423-32775](#C_4423-32775) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32776](#C_4423-32776) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4423-32777](#C_4423-32777) | [Laboratory Test, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01](#E_Laboratory_Test_Order_V3_) |
| entry | 0..\* | MAY |  | [4423-32778](#C_4423-32778) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32779](#C_4423-32779) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32780](#C_4423-32780) | [Laboratory Test, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01](#E_Laboratory_Test_Performed_V3_) |
| entry | 0..\* | MAY |  | [4423-32781](#C_4423-32781) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32782](#C_4423-32782) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32783](#C_4423-32783) | [Laboratory Test, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01](#E_Laboratory_Test_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4423-32787](#C_4423-32787) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32788](#C_4423-32788) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-32789](#C_4423-32789) | [Medication, Active (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01](#E_Medication_Active_V4_) |
| entry | 0..\* | MAY |  | [4423-32790](#C_4423-32790) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32791](#C_4423-32791) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-32792](#C_4423-32792) | [Medication, Administered (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01](#E_Medication_Administered_V4_) |
| entry | 0..\* | MAY |  | [4423-32797](#C_4423-32797) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32803](#C_4423-32803) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-32804](#C_4423-32804) | [Medication, Discharge (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01](#E_Medication_Discharge_V3) |
| entry | 0..\* | MAY |  | [4423-32798](#C_4423-32798) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32805](#C_4423-32805) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-32806](#C_4423-32806) | [Medication, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01](#E_Medication_Order_V4_) |
| entry | 0..\* | MAY |  | [4423-32799](#C_4423-32799) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32807](#C_4423-32807) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4423-32808](#C_4423-32808) | [Medication, Dispensed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01](#E_Medication_Dispensed_V3_) |
| entry | 0..\* | MAY |  | [4423-33949](#C_4423-33949) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33950](#C_4423-33950) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-33951](#C_4423-33951) | [Immunization, Administered (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01](#E_Immunization_Administered_V4) |
| entry | 0..\* | MAY |  | [4423-33955](#C_4423-33955) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33956](#C_4423-33956) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-34037](#C_4423-34037) | [Immunization, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01](#E_Immunization_Order_V3) |
| entry | 0..\* | MAY |  | [4423-32811](#C_4423-32811) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32821](#C_4423-32821) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32822](#C_4423-32822) | [Patient Care Experience (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01](#E_Patient_Care_Experience_V2_) |
| entry | 0..\* | MAY |  | [4423-32812](#C_4423-32812) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32823](#C_4423-32823) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32824](#C_4423-32824) | [Patient Characteristic (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01](#E_Patient_Characteristic_V2) |
| entry | 0..\* | MAY |  | [4423-32813](#C_4423-32813) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32825](#C_4423-32825) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32826](#C_4423-32826) | [Patient Characteristic Clinical Trial Participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01](#E_Patient_Charac_Clinical_Trial_1) |
| entry | 0..\* | MAY |  | [4423-32814](#C_4423-32814) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32827](#C_4423-32827) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32828](#C_4423-32828) | [Patient Characteristic Birth Date (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01](#E_Patient_Characteristic_Birth_Date) |
| entry | 0..\* | MAY |  | [4423-32815](#C_4423-32815) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32829](#C_4423-32829) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32830](#C_4423-32830) | [Patient Characteristic Ethnicity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01](#E_Patient_Characteristic_Ethnicity) |
| entry | 0..\* | MAY |  | [4423-32816](#C_4423-32816) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32831](#C_4423-32831) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32832](#C_4423-32832) | [Patient Characteristic Expired (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01](#E_Patient_Characteristic_Expired_V1) |
| entry | 0..\* | MAY |  | [4423-32817](#C_4423-32817) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32833](#C_4423-32833) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32834](#C_4423-32834) | [Patient Characteristic Payer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01](#E_Patient_Characteristic_Payer) |
| entry | 0..\* | MAY |  | [4423-32818](#C_4423-32818) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32835](#C_4423-32835) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32836](#C_4423-32836) | [Patient Characteristic Race (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01](#E_Patient_Characteristic_Race) |
| entry | 0..\* | MAY |  | [4423-32819](#C_4423-32819) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32837](#C_4423-32837) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32838](#C_4423-32838) | [Patient Characteristic Sex (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01](#E_Patient_Characteristic_Sex) |
| entry | 0..\* | MAY |  | [4423-32844](#C_4423-32844) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32845](#C_4423-32845) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32846](#C_4423-32846) | [Physical Exam, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01](#E_Physical_Exam_Order_V3_) |
| entry | 0..\* | MAY |  | [4423-32847](#C_4423-32847) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32848](#C_4423-32848) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32849](#C_4423-32849) | [Physical Exam, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01](#E_Physical_Exam_Performed_V3_) |
| entry | 0..\* | MAY |  | [4423-32850](#C_4423-32850) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32851](#C_4423-32851) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32852](#C_4423-32852) | [Physical Exam, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01](#E_Physical_Exam_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4423-32856](#C_4423-32856) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32857](#C_4423-32857) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4423-32858](#C_4423-32858) | [Procedure, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01](#E_Procedure_Performed_V4_) |
| entry | 0..\* | MAY |  | [4423-32859](#C_4423-32859) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32860](#C_4423-32860) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4423-32861](#C_4423-32861) | [Procedure, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01](#E_Procedure_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4423-32862](#C_4423-32862) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32863](#C_4423-32863) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4423-32864](#C_4423-32864) | [Procedure, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01](#E_Procedure_Order_V4_) |
| entry | 0..\* | MAY |  | [4423-32868](#C_4423-32868) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32869](#C_4423-32869) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-32870](#C_4423-32870) | [Provider Care Experience (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01](#E_Provider_Care_Experience_V2_) |
| entry | 0..\* | MAY |  | [4423-32996](#C_4423-32996) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32997](#C_4423-32997) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-32998](#C_4423-32998) | [Substance, Administered (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01](#E_Substance_Administered_V4) |
| entry | 0..\* | MAY |  | [4423-33005](#C_4423-33005) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33006](#C_4423-33006) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-33007](#C_4423-33007) | [Substance, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01](#E_Substance_Order_V4) |
| entry | 0..\* | MAY |  | [4423-33011](#C_4423-33011) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33012](#C_4423-33012) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4423-33013](#C_4423-33013) | [Substance, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01](#E_Substance_Recommended_V4_) |
| entry | 0..\* | MAY |  | [4423-34058](#C_4423-34058) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34059](#C_4423-34059) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34113](#C_4423-34113) | [Symptom (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01](#E_Symptom_V3) |
| entry | 0..\* | MAY |  | [4423-34878](#C_4423-34878) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34880](#C_4423-34880) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-34879](#C_4423-34879) | [Program Participation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01](#E_Program_Participation_V3) |
| entry | 0..\* | MAY |  | [4423-35739](#C_4423-35739) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35741](#C_4423-35741) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4423-35740](#C_4423-35740) | [Related Person (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01](#E_Related_Person_) |

1. SHALL contain exactly one [1..1] templateId (CONF:4423-18804) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4423-18805) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.2.6" (CONF:4423-18806).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33440).
2. MAY contain zero or one [0..1] id (CONF:4423-18856).
3. SHALL contain exactly one [1..1] code (CONF:4423-18807).
   1. This code SHALL contain exactly one [1..1] @code="57025-9" Data Criteria (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4423-18808).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4423-30091).
4. SHALL contain exactly one [1..1] title (CONF:4423-18857).
   1. This title SHALL contain exactly one [1..1] @value="Data Criteria Section" (CONF:4423-18964).
5. SHALL contain exactly one [1..1] text (CONF:4423-18858).
6. SHALL contain at least one [1..\*] entry (CONF:4423-18853).
7. MAY contain zero or more [0..\*] entry (CONF:4423-34258) 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:4423-34259).
   2. SHALL contain exactly one [1..1] [Adverse Event (V3)](#E_Adverse_Event_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01) (CONF:4423-34260).
8. MAY contain zero or more [0..\*] entry (CONF:4423-34261) 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:4423-34262).
   2. SHALL contain exactly one [1..1] [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01) (CONF:4423-34263).
9. MAY contain zero or more [0..\*] entry (CONF:4423-34176) 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:4423-34177).
   2. SHALL contain exactly one [1..1] [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01) (CONF:4423-34178).
10. MAY contain zero or more [0..\*] entry (CONF:4423-34179) such that it
    1. SHALL contain exactly one [1..1] typeId="DRIV" Is Derived From (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34180).
    2. SHALL contain exactly one [1..1] [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01) (CONF:4423-34181).
11. MAY contain zero or more [0..\*] entry (CONF:4423-34678) such that it
    1. SHALL contain exactly one [1..1] typeId="DRIV" Is Derived From (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34680).
    2. SHALL contain exactly one [1..1] [Assessment, Order (V2)](#E_Assessment_Order_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01) (CONF:4423-34679).
12. MAY contain zero or more [0..\*] entry (CONF:4423-32667) 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:4423-32668).
    2. SHALL contain exactly one [1..1] [Care Goal (V3)](#E_Care_Goal_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01) (CONF:4423-32669).
13. MAY contain zero or more [0..\*] entry (CONF:4423-34850) 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:4423-34852).
    2. SHALL contain exactly one [1..1] [Communication, Performed (V2)](#E_Communication_Performed_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01) (CONF:4423-34851).
14. MAY contain zero or more [0..\*] entry (CONF:4423-32685) 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:4423-32686).
    2. SHALL contain exactly one [1..1] [Device, Applied (V3)](#E_Device_Applied_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01) (CONF:4423-32687).
15. MAY contain zero or more [0..\*] entry (CONF:4423-32691) 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:4423-32692).
    2. SHALL contain exactly one [1..1] [Device, Order (V2)](#E_Device_Order_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01) (CONF:4423-32693).
16. MAY contain zero or more [0..\*] entry (CONF:4423-32694) 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:4423-32695).
    2. SHALL contain exactly one [1..1] [Device, Recommended (V2)](#E_Device_Recommended_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01) (CONF:4423-32696).
17. MAY contain zero or more [0..\*] entry (CONF:4423-34055) 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:4423-34056).
    2. SHALL contain exactly one [1..1] [Diagnosis (V3)](#E_Diagnosis_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01) (CONF:4423-34057).
18. MAY contain zero or more [0..\*] entry (CONF:4423-34038) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4423-34039).
    2. SHALL contain exactly one [1..1] [Family History (V2)](#E_Family_History_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01) (CONF:4423-34040).
19. MAY contain zero or more [0..\*] entry (CONF:4423-32715) 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:4423-32716).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01) (CONF:4423-32717).
20. MAY contain zero or more [0..\*] entry (CONF:4423-32718) 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:4423-32719).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01) (CONF:4423-32720).
21. MAY contain zero or more [0..\*] entry (CONF:4423-32721) 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:4423-32722).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01) (CONF:4423-32723).
22. MAY contain zero or more [0..\*] entry (CONF:4423-32730) 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:4423-32731>).
    2. SHALL contain exactly one [1..1] [Encounter, Order (V2)](#E_Encounter_Order_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01) (CONF:4423-32732).
23. MAY contain zero or more [0..\*] entry (CONF:4423-32733) 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:4423-32734).
    2. SHALL contain exactly one [1..1] [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01) (CONF:4423-32735).
24. MAY contain zero or more [0..\*] entry (CONF:4423-32736) 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:4423-32737).
    2. SHALL contain exactly one [1..1] [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01) (CONF:4423-32738).
25. MAY contain zero or more [0..\*] entry (CONF:4423-32757) 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:4423-32758).
    2. SHALL contain exactly one [1..1] [Intervention, Order (V2)](#E_Intervention_Order_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01) (CONF:4423-32759).
26. MAY contain zero or more [0..\*] entry (CONF:4423-32760) 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:4423-32761).
    2. SHALL contain exactly one [1..1] [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01) (CONF:4423-32762).
27. MAY contain zero or more [0..\*] entry (CONF:4423-32763) 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:4423-32764).
    2. SHALL contain exactly one [1..1] [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01) (CONF:4423-32765).
28. MAY contain zero or more [0..\*] entry (CONF:4423-32775) 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:4423-32776).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01) (CONF:4423-32777).
29. MAY contain zero or more [0..\*] entry (CONF:4423-32778) 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:4423-32779).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01) (CONF:4423-32780).
30. MAY contain zero or more [0..\*] entry (CONF:4423-32781) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4423-32782).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01) (CONF:4423-32783).
31. MAY contain zero or more [0..\*] entry (CONF:4423-32787) 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:4423-32788).
    2. SHALL contain exactly one [1..1] [Medication, Active (V4)](#E_Medication_Active_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01) (CONF:4423-32789).
32. MAY contain zero or more [0..\*] entry (CONF:4423-32790) 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:4423-32791).
    2. SHALL contain exactly one [1..1] [Medication, Administered (V4)](#E_Medication_Administered_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01) (CONF:4423-32792).
33. MAY contain zero or more [0..\*] entry (CONF:4423-32797) 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:4423-32803).
    2. SHALL contain exactly one [1..1] [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01) (CONF:4423-32804).
34. MAY contain zero or more [0..\*] entry (CONF:4423-32798) 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:4423-32805).
    2. SHALL contain exactly one [1..1] [Medication, Order (V4)](#E_Medication_Order_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01) (CONF:4423-32806).
35. MAY contain zero or more [0..\*] entry (CONF:4423-32799) 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:4423-32807).
    2. SHALL contain exactly one [1..1] [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01) (CONF:4423-32808).
36. MAY contain zero or more [0..\*] entry (CONF:4423-33949) 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:4423-33950).
    2. SHALL contain exactly one [1..1] [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01) (CONF:4423-33951).
37. MAY contain zero or more [0..\*] entry (CONF:4423-33955) 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:4423-33956).
    2. SHALL contain exactly one [1..1] [Immunization, Order (V3)](#E_Immunization_Order_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01) (CONF:4423-34037).
38. MAY contain zero or more [0..\*] entry (CONF:4423-32811) 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:4423-32821).
    2. SHALL contain exactly one [1..1] [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01) (CONF:4423-32822).
39. MAY contain zero or more [0..\*] entry (CONF:4423-32812) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4423-32823).
    2. SHALL contain exactly one [1..1] [Patient Characteristic (V2)](#E_Patient_Characteristic_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01) (CONF:4423-32824).
40. MAY contain zero or more [0..\*] entry (CONF:4423-32813) 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:4423-32825).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01) (CONF:4423-32826).
41. MAY contain zero or more [0..\*] entry (CONF:4423-32814) 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:4423-32827).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Birth Date](#E_Patient_Characteristic_Birth_Date) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01) (CONF:4423-32828).
42. MAY contain zero or more [0..\*] entry (CONF:4423-32815) 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:4423-32829).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Ethnicity](#E_Patient_Characteristic_Ethnicity) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01) (CONF:4423-32830).
43. MAY contain zero or more [0..\*] entry (CONF:4423-32816) 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:4423-32831).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Expired](#E_Patient_Characteristic_Expired_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01) (CONF:4423-32832).
44. MAY contain zero or more [0..\*] entry (CONF:4423-32817) 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:4423-32833).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Payer](#E_Patient_Characteristic_Payer) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01) (CONF:4423-32834).
45. MAY contain zero or more [0..\*] entry (CONF:4423-32818) 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:4423-32835).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Race](#E_Patient_Characteristic_Race) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01) (CONF:4423-32836).
46. MAY contain zero or more [0..\*] entry (CONF:4423-32819) 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:4423-32837).
    2. SHALL contain exactly one [1..1] [Patient Characteristic Sex](#E_Patient_Characteristic_Sex) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01) (CONF:4423-32838).
47. MAY contain zero or more [0..\*] entry (CONF:4423-32844) 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:4423-32845).
    2. SHALL contain exactly one [1..1] [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01) (CONF:4423-32846).
48. MAY contain zero or more [0..\*] entry (CONF:4423-32847) 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:4423-32848).
    2. SHALL contain exactly one [1..1] [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01) (CONF:4423-32849).
49. MAY contain zero or more [0..\*] entry (CONF:4423-32850) 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:4423-32851).
    2. SHALL contain exactly one [1..1] [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01) (CONF:4423-32852).
50. MAY contain zero or more [0..\*] entry (CONF:4423-32856) 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:4423-32857).
    2. SHALL contain exactly one [1..1] [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01) (CONF:4423-32858).
51. MAY contain zero or more [0..\*] entry (CONF:4423-32859) 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:4423-32860).
    2. SHALL contain exactly one [1..1] [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01) (CONF:4423-32861).
52. MAY contain zero or more [0..\*] entry (CONF:4423-32862) 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:4423-32863).
    2. SHALL contain exactly one [1..1] [Procedure, Order (V4)](#E_Procedure_Order_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01) (CONF:4423-32864).
53. MAY contain zero or more [0..\*] entry (CONF:4423-32868) 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:4423-32869).
    2. SHALL contain exactly one [1..1] [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01) (CONF:4423-32870).
54. MAY contain zero or more [0..\*] entry (CONF:4423-32996) 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:4423-32997).
    2. SHALL contain exactly one [1..1] [Substance, Administered (V4)](#E_Substance_Administered_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01) (CONF:4423-32998).
55. MAY contain zero or more [0..\*] entry (CONF:4423-33005) 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:4423-33006).
    2. SHALL contain exactly one [1..1] [Substance, Order (V4)](#E_Substance_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01) (CONF:4423-33007).
56. MAY contain zero or more [0..\*] entry (CONF:4423-33011) 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:4423-33012).
    2. SHALL contain exactly one [1..1] [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01) (CONF:4423-33013).
57. MAY contain zero or more [0..\*] entry (CONF:4423-34058) 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:4423-34059).
    2. SHALL contain exactly one [1..1] [Symptom (V3)](#E_Symptom_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01) (CONF:4423-34113).
58. MAY contain zero or more [0..\*] entry (CONF:4423-34878) 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:4423-34880).
    2. SHALL contain exactly one [1..1] [Program Participation (V3)](#E_Program_Participation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01) (CONF:4423-34879).
59. MAY contain zero or more [0..\*] entry (CONF:4423-35739) 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:4423-35741).
    2. SHALL contain exactly one [1..1] [Related Person](#E_Related_Person_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01) (CONF:4423-35740).

Measure Description Section

[measureDescriptionSection: identifier urn:oid:2.16.840.1.113883.10.20.28.2.3 (open)]

Table 5: Measure Description Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V4)](#D_QDM_Templates_for_CQLBased_HQMF_H) (optional) |  |

The Measure Description Section is used to provide a more detailed or embellished description, such as one containing images and/or flow diagrams, than that provided in QualityMeasureDocument.text.

Table 6: Measure Description Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| measureDescriptionSection (identifier: urn:oid:2.16.840.1.113883.10.20.28.2.3) | | | | | |
| templateId | 1..1 | SHALL |  | [87-18897](#C_87-18897) |  |
| item | 1..1 | SHALL |  | [87-18898](#C_87-18898) |  |
| @root | 1..1 | SHALL |  | [87-18899](#C_87-18899) | 2.16.840.1.113883.10.20.28.2.3 |
| id | 0..1 | MAY |  | [87-18913](#C_87-18913) |  |
| code | 1..1 | SHALL |  | [87-18914](#C_87-18914) |  |
| @code | 1..1 | SHALL |  | [87-19064](#C_87-19064) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 74045-6 |
| @codeSystem | 1..1 | SHALL |  | [87-30102](#C_87-30102) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [87-18918](#C_87-18918) |  |
| @value | 1..1 | SHALL |  | [87-18919](#C_87-18919) | Measure Description Section |
| text | 1..1 | SHALL |  | [87-18920](#C_87-18920) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:87-18897).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:87-18898) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.2.3" (CONF:87-18899).
2. MAY contain zero or one [0..1] id (CONF:87-18913).
3. SHALL contain exactly one [1..1] code (CONF:87-18914).
   1. This code SHALL contain exactly one [1..1] @code="74045-6" Measure Description (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:87-19064).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:87-30102).
4. SHALL contain exactly one [1..1] title (CONF:87-18918).
   1. This title SHALL contain exactly one [1..1] @value="Measure Description Section" (CONF:87-18919).
5. SHALL contain exactly one [1..1] text (CONF:87-18920).

Figure 2: Measure Description Section Example

<component>

<measureDescriptionSection>

<templateId>

<item root="2.16.840.1.113883.10.20.28.2.3"/>

</templateId>

<code code="74045-6" codeSystem="2.16.840.1.113883.6.1">

<displayName value="Measure Description"/>

</code>

<title value="Measure Description Section"/>

<text value="...."/>

</measureDescriptionSection>

</component>

Measure Observations Section (V2)

[measureObservationsSection: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01 (open)]

Table 7: Measure Observations Section (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V4)](#D_QDM_Templates_for_CQLBased_HQMF_H) (optional) |  |

The Measure Observations section defines computations (e.g., time from check in to antibiotic administration) used to score particular aspects of performance. Measure observations are used in ratio and continuous variable eCQM.

Table 8: Measure Observations Section (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| measureObservationsSection (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3372-18901](#C_3372-18901) |  |
| item | 1..1 | SHALL |  | [3372-18902](#C_3372-18902) |  |
| @root | 1..1 | SHALL |  | [3372-18903](#C_3372-18903) | 2.16.840.1.113883.10.20.28.2.4 |
| @extension | 1..1 | SHALL |  | [3372-30104](#C_3372-30104) | 2018-05-01 |
| id | 0..1 | MAY |  | [3372-18904](#C_3372-18904) |  |
| code | 1..1 | SHALL |  | [3372-18905](#C_3372-18905) |  |
| @code | 1..1 | SHALL |  | [3372-18906](#C_3372-18906) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57027-5 |
| @codeSystem | 1..1 | SHALL |  | [3372-30103](#C_3372-30103) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [3372-18910](#C_3372-18910) |  |
| @value | 1..1 | SHALL |  | [3372-18965](#C_3372-18965) | Measure Observations Section |
| text | 1..1 | SHALL |  | [3372-18911](#C_3372-18911) |  |
| definition | 1..\* | SHALL |  | [3372-30105](#C_3372-30105) |  |
| measureObservationDefinition | 1..1 | SHALL |  | [3372-34644](#C_3372-34644) |  |
| code | 1..1 | SHALL |  | [3372-34650](#C_3372-34650) |  |
| value | 1..1 | SHALL |  | [3372-34651](#C_3372-34651) |  |
| methodCode | 1..1 | SHALL |  | [3372-34649](#C_3372-34649) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:3372-18901).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3372-18902) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.2.4" (CONF:3372-18903).
      2. SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-30104).
2. MAY contain zero or one [0..1] id (CONF:3372-18904).
3. SHALL contain exactly one [1..1] code (CONF:3372-18905).
   1. This code SHALL contain exactly one [1..1] @code="57027-5" Measure Observation (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:3372-18906).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3372-30103).
4. SHALL contain exactly one [1..1] title (CONF:3372-18910).
   1. This title SHALL contain exactly one [1..1] @value="Measure Observations Section" (CONF:3372-18965).
5. SHALL contain exactly one [1..1] text (CONF:3372-18911).
6. SHALL contain at least one [1..\*] definition (CONF:3372-30105).
   1. Such definitions SHALL contain exactly one [1..1] measureObservationDefinition (CONF:3372-34644).
      1. This measureObservationDefinition SHALL contain exactly one [1..1] code (CONF:3372-34650).
      2. This measureObservationDefinition SHALL contain exactly one [1..1] value (CONF:3372-34651).
      3. This measureObservationDefinition SHALL contain exactly one [1..1] methodCode (CONF:3372-34649).

Figure 2: Measure Observations Section (V2) Example

<component>

<measureObservationSection>

<templateId>

<item root="2.16.840.1.113883.10.20.28.2.4" extension=”2018-05-01”/>

</templateId>

<code code="57027-5" codeSystem="2.16.840.1.113883.6.1">

<displayName value="Measure Observation"/>

</code>

<title value="Measure Observation Section"/>

<text value="...."/>

<definition>

<measureObservationDefinition classCode="OBS" moodCode="DEF">

<id extension="Measure Observation"

root="8A9A47CF-45A4-4385-923C-5A045D8EA9F8"/>

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

<value nullFlavor="DER" xsi:type="INT">

<expression value="TestCMS55v5.&quot;Measure Observation&quot;"/>

</value>

</measureObservationDefinition>

</definition>

</measureObservationSection>

</component>

Population Criteria Section (V2)

[populationCriteriaSection: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01 (open)]

Table 9: Population Criteria Section (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V4)](#D_QDM_Templates_for_CQLBased_HQMF_H) (required) |  |

The Population Criteria Section is used to formalize a measure's population types (e.g., initial population, numerator, denominator).

Table 10: Population Criteria Section (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| populationCriteriaSection (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3346-18774](#C_3346-18774) |  |
| item | 1..1 | SHALL |  | [3346-18775](#C_3346-18775) |  |
| @root | 1..1 | SHALL |  | [3346-18776](#C_3346-18776) | 2.16.840.1.113883.10.20.28.2.7 |
| @extension | 1..1 | SHALL |  | [3346-34633](#C_3346-34633) | 2017-08-01 |
| id | 0..1 | MAY |  | [3346-18960](#C_3346-18960) |  |
| code | 1..1 | SHALL |  | [3346-19059](#C_3346-19059) |  |
| @code | 1..1 | SHALL |  | [3346-19060](#C_3346-19060) | 57026-7 |
| @codeSystem | 1..1 | SHALL |  | [3346-30092](#C_3346-30092) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [3346-18781](#C_3346-18781) |  |
| @value | 1..1 | SHALL |  | [3346-18782](#C_3346-18782) | Population Criteria Section |
| text | 1..1 | SHALL |  | [3346-18961](#C_3346-18961) |  |
| component | 1..\* | SHALL |  | [3346-29995](#C_3346-29995) |  |
| initialPopulationCriteria | 1..1 | SHALL |  | [3346-29996](#C_3346-29996) |  |
| code | 1..1 | SHALL |  | [3346-30022](#C_3346-30022) |  |
| @code | 1..1 | SHALL |  | [3346-30023](#C_3346-30023) | IPOP |
| @codeSystem | 1..1 | SHALL |  | [3346-30093](#C_3346-30093) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34868](#C_3346-34868) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34869](#C_3346-34869) |  |
| id | 1..1 | SHALL |  | [3346-34870](#C_3346-34870) |  |
| @root | 1..1 | SHALL |  | [3346-34886](#C_3346-34886) |  |
| @extension | 1..1 | SHALL |  | [3346-34887](#C_3346-34887) |  |
| component | 0..\* | MAY |  | [3346-30024](#C_3346-30024) |  |
| numeratorCriteria | 1..1 | SHALL |  | [3346-30025](#C_3346-30025) |  |
| code | 1..1 | SHALL |  | [3346-30028](#C_3346-30028) |  |
| @code | 1..1 | SHALL |  | [3346-30029](#C_3346-30029) | NUMER |
| @codeSystem | 1..1 | SHALL |  | [3346-30094](#C_3346-30094) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34871](#C_3346-34871) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34872](#C_3346-34872) |  |
| id | 1..1 | SHALL |  | [3346-34873](#C_3346-34873) |  |
| @root | 1..1 | SHALL |  | [3346-34888](#C_3346-34888) |  |
| @extension | 1..1 | SHALL |  | [3346-34889](#C_3346-34889) |  |
| component | 0..\* | MAY |  | [3346-30026](#C_3346-30026) |  |
| denominatorCriteria | 1..1 | SHALL |  | [3346-30027](#C_3346-30027) |  |
| code | 1..1 | SHALL |  | [3346-30030](#C_3346-30030) |  |
| @code | 1..1 | SHALL |  | [3346-30031](#C_3346-30031) | DENOM |
| @codeSystem | 1..1 | SHALL |  | [3346-30095](#C_3346-30095) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34874](#C_3346-34874) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34875](#C_3346-34875) |  |
| id | 1..1 | SHALL |  | [3346-34876](#C_3346-34876) |  |
| @root | 1..1 | SHALL |  | [3346-34890](#C_3346-34890) |  |
| @extension | 1..1 | SHALL |  | [3346-34891](#C_3346-34891) |  |
| component | 0..\* | MAY |  | [3346-30032](#C_3346-30032) |  |
| measurePopulationCriteria | 1..1 | SHALL |  | [3346-30033](#C_3346-30033) |  |
| code | 1..1 | SHALL |  | [3346-30034](#C_3346-30034) |  |
| @code | 1..1 | SHALL |  | [3346-30035](#C_3346-30035) | MSRPOPL |
| @codeSystem | 1..1 | SHALL |  | [3346-30096](#C_3346-30096) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34877](#C_3346-34877) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34878](#C_3346-34878) |  |
| id | 1..1 | SHALL |  | [3346-34879](#C_3346-34879) |  |
| @root | 1..1 | SHALL |  | [3346-34892](#C_3346-34892) |  |
| @extension | 1..1 | SHALL |  | [3346-34893](#C_3346-34893) |  |
| component | 0..\* | MAY |  | [3346-30036](#C_3346-30036) |  |
| denominatorExceptionCriteria | 1..1 | SHALL |  | [3346-30037](#C_3346-30037) |  |
| code | 1..1 | SHALL |  | [3346-30038](#C_3346-30038) |  |
| @code | 1..1 | SHALL |  | [3346-30039](#C_3346-30039) | DENEXCEP |
| @codeSystem | 1..1 | SHALL |  | [3346-30097](#C_3346-30097) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34880](#C_3346-34880) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34881](#C_3346-34881) |  |
| id | 1..1 | SHALL |  | [3346-34882](#C_3346-34882) |  |
| @root | 1..1 | SHALL |  | [3346-34894](#C_3346-34894) |  |
| @extension | 1..1 | SHALL |  | [3346-34895](#C_3346-34895) |  |
| component | 0..\* | MAY |  | [3346-30040](#C_3346-30040) |  |
| denominatorExclusionCriteria | 1..1 | SHALL |  | [3346-30041](#C_3346-30041) |  |
| code | 1..1 | SHALL |  | [3346-30042](#C_3346-30042) |  |
| @code | 1..1 | SHALL |  | [3346-30043](#C_3346-30043) | DENEX |
| @codeSystem | 1..1 | SHALL |  | [3346-30098](#C_3346-30098) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34883](#C_3346-34883) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34884](#C_3346-34884) |  |
| id | 1..1 | SHALL |  | [3346-34885](#C_3346-34885) |  |
| @root | 1..1 | SHALL |  | [3346-34896](#C_3346-34896) |  |
| @extension | 1..1 | SHALL |  | [3346-34897](#C_3346-34897) |  |
| component | 0..\* | MAY |  | [3346-30044](#C_3346-30044) |  |
| numeratorExclusionCriteria | 1..1 | SHALL |  | [3346-30045](#C_3346-30045) |  |
| code | 1..1 | SHALL |  | [3346-30046](#C_3346-30046) |  |
| @code | 1..1 | SHALL |  | [3346-30047](#C_3346-30047) | NUMEX |
| @codeSystem | 1..1 | SHALL |  | [3346-30099](#C_3346-30099) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34898](#C_3346-34898) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34899](#C_3346-34899) |  |
| id | 1..1 | SHALL |  | [3346-34900](#C_3346-34900) |  |
| @root | 1..1 | SHALL |  | [3346-34904](#C_3346-34904) |  |
| @extension | 1..1 | SHALL |  | [3346-34905](#C_3346-34905) |  |
| component | 0..\* | MAY |  | [3346-30048](#C_3346-30048) |  |
| measurePopulationExclusionCriteria | 1..1 | SHALL |  | [3346-30049](#C_3346-30049) |  |
| code | 1..1 | SHALL |  | [3346-30050](#C_3346-30050) |  |
| @code | 1..1 | SHALL |  | [3346-30051](#C_3346-30051) | MSRPOPLEX |
| @codeSystem | 1..1 | SHALL |  | [3346-30100](#C_3346-30100) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34901](#C_3346-34901) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34902](#C_3346-34902) |  |
| id | 1..1 | SHALL |  | [3346-34903](#C_3346-34903) |  |
| @root | 1..1 | SHALL |  | [3346-34906](#C_3346-34906) |  |
| @extension | 1..1 | SHALL |  | [3346-34907](#C_3346-34907) |  |
| component | 0..\* | MAY |  | [3346-30052](#C_3346-30052) |  |
| stratifierCriteria | 1..1 | SHALL |  | [3346-30053](#C_3346-30053) |  |
| code | 0..1 | MAY |  | [3346-30054](#C_3346-30054) |  |
| @code | 1..1 | SHALL |  | [3346-30055](#C_3346-30055) | STRAT |
| @codeSystem | 1..1 | SHALL |  | [3346-30101](#C_3346-30101) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| precondition | 1..\* | SHALL |  | [3346-34634](#C_3346-34634) |  |
| criteriaReference | 1..1 | SHALL |  | [3346-34635](#C_3346-34635) |  |
| id | 1..1 | SHALL |  | [3346-34644](#C_3346-34644) |  |
| @root | 1..1 | SHALL |  | [3346-34645](#C_3346-34645) |  |
| @extension | 1..1 | SHALL |  | [3346-34646](#C_3346-34646) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:3346-18774).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-18775) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.2.7" (CONF:3346-18776).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34633).
2. MAY contain zero or one [0..1] id (CONF:3346-18960).
3. SHALL contain exactly one [1..1] code (CONF:3346-19059).
   1. This code SHALL contain exactly one [1..1] @code="57026-7" Population Criteria (CONF:3346-19060).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3346-30092).
4. SHALL contain exactly one [1..1] title (CONF:3346-18781).
   1. This title SHALL contain exactly one [1..1] @value="Population Criteria Section" (CONF:3346-18782).
5. SHALL contain exactly one [1..1] text (CONF:3346-18961).
6. SHALL contain at least one [1..\*] component (CONF:3346-29995) such that it
   1. SHALL contain exactly one [1..1] initialPopulationCriteria (CONF:3346-29996).
      1. This initialPopulationCriteria SHALL contain exactly one [1..1] code (CONF:3346-30022).
         1. This code SHALL contain exactly one [1..1] @code="IPOP" Initial Population (CONF:3346-30023).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30093).
      2. This initialPopulationCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34868).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34869).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34870).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34886).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34887).

1. MAY contain zero or more [0..\*] component (CONF:3346-30024) such that it
   1. SHALL contain exactly one [1..1] numeratorCriteria (CONF:3346-30025).
      1. This numeratorCriteria SHALL contain exactly one [1..1] code (CONF:3346-30028).
         1. This code SHALL contain exactly one [1..1] @code="NUMER" Numerator (CONF:3346-30029).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30094).
      2. This numeratorCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34871).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34872).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34873).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34888).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34889).

1. MAY contain zero or more [0..\*] component (CONF:3346-30026) such that it
   1. SHALL contain exactly one [1..1] denominatorCriteria (CONF:3346-30027).
      1. This denominatorCriteria SHALL contain exactly one [1..1] code (CONF:3346-30030).
         1. This code SHALL contain exactly one [1..1] @code="DENOM" Denominator (CONF:3346-30031).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30095).
      2. This denominatorCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34874).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34875).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34876).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34890).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34891).

1. MAY contain zero or more [0..\*] component (CONF:3346-30032) such that it
   1. SHALL contain exactly one [1..1] measurePopulationCriteria (CONF:3346-30033).
      1. This measurePopulationCriteria SHALL contain exactly one [1..1] code (CONF:3346-30034).
         1. This code SHALL contain exactly one [1..1] @code="MSRPOPL" Measure Population (CONF:3346-30035).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30096).
      2. This measurePopulationCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34877).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34878).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34879).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34892).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34893).

1. MAY contain zero or more [0..\*] component (CONF:3346-30036) such that it
   1. SHALL contain exactly one [1..1] denominatorExceptionCriteria (CONF:3346-30037).
      1. This denominatorExceptionCriteria SHALL contain exactly one [1..1] code (CONF:3346-30038).
         1. This code SHALL contain exactly one [1..1] @code="DENEXCEP" Denominator Exception (CONF:3346-30039).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30097).
      2. This denominatorExceptionCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34880).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34881).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34882).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34894).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34895).

1. MAY contain zero or more [0..\*] component (CONF:3346-30040) such that it
   1. SHALL contain exactly one [1..1] denominatorExclusionCriteria (CONF:3346-30041).
      1. This denominatorExclusionCriteria SHALL contain exactly one [1..1] code (CONF:3346-30042).
         1. This code SHALL contain exactly one [1..1] @code="DENEX" Denominator Exclusion (CONF:3346-30043).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30098).
      2. This denominatorExclusionCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34883).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34884).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34885).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34896).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34897).

1. MAY contain zero or more [0..\*] component (CONF:3346-30044) such that it
   1. SHALL contain exactly one [1..1] numeratorExclusionCriteria (CONF:3346-30045).
      1. This numeratorExclusionCriteria SHALL contain exactly one [1..1] code (CONF:3346-30046).
         1. This code SHALL contain exactly one [1..1] @code="NUMEX" Numerator Exclusion (CONF:3346-30047).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30099).
      2. This numeratorExclusionCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34898).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34899).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34900).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34904).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34905).

1. MAY contain zero or more [0..\*] component (CONF:3346-30048) such that it
   1. SHALL contain exactly one [1..1] measurePopulationExclusionCriteria (CONF:3346-30049).
      1. This measurePopulationExclusionCriteria SHALL contain exactly one [1..1] code (CONF:3346-30050).
         1. This code SHALL contain exactly one [1..1] @code="MSRPOPLEX" Measure Population Exclusions (CONF:3346-30051).
         2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30100).
      2. This measurePopulationExclusionCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34901).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34902).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34903).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34906).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34907).

1. MAY contain zero or more [0..\*] component (CONF:3346-30052) such that it
   1. SHALL contain exactly one [1..1] stratifierCriteria (CONF:3346-30053).
      1. This stratifierCriteria MAY contain zero or one [0..1] code (CONF:3346-30054).
         1. The code, if present, SHALL contain exactly one [1..1] @code="STRAT" Stratification (CONF:3346-30055).
         2. The code, if present, SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-30101).
      2. This stratifierCriteria SHALL contain at least one [1..\*] precondition (CONF:3346-34634).
         1. Such preconditions SHALL contain exactly one [1..1] criteriaReference (CONF:3346-34635).
            1. This criteriaReference SHALL contain exactly one [1..1] id (CONF:3346-34644).

This id SHALL contain exactly one [1..1] @root (CONF:3346-34645).

This id SHALL contain exactly one [1..1] @extension (CONF:3346-34646).

# Entry

Admission Source

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01 (open)]

Table 11: Admission Source Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional) |  |

This template represents the QDM attribute: Admission Source  
The location from which the patient was admitted (e.g., physician referral, facility from which the patient was transferred).

Table 12: Admission Source Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-34344](#C_3335-34344) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| templateId | 1..1 | SHALL |  | [3335-34340](#C_3335-34340) |  |
| item | 1..1 | SHALL |  | [3335-34341](#C_3335-34341) |  |
| @root | 1..1 | SHALL |  | [3335-34345](#C_3335-34345) | 2.16.840.1.113883.10.20.28.3.123 |
| @extension | 1..1 | SHALL |  | [3335-34530](#C_3335-34530) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-34342](#C_3335-34342) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-34346](#C_3335-34346) |  |

1. SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3335-34344).
2. SHALL contain exactly one [1..1] templateId (CONF:3335-34340).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-34341) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.3.123" (CONF:3335-34345).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34530).
3. SHALL contain exactly one [1..1] code (CONF:3335-34342).
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:3335-34346).

Figure 4: Admission Source Example

<role classCode="SDLOC">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.123" extension="2017-05-01"/>

</templateId>

<code valueSet="{$QDMElementValueSetOID}"/>

</role>

Adverse Event (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01 (open)]

Table 13: Adverse Event (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the 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.  
Timing: The Relevant dateTime references the adverse event occurred. The Author dateTime references the time the adverse event was recorded.

Table 14: Adverse Event (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34210](#C_4423-34210) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34211](#C_4423-34211) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34758](#C_4423-34758) |  |
| templateId | 1..1 | SHALL |  | [4423-34183](#C_4423-34183) |  |
| item | 1..1 | SHALL |  | [4423-34184](#C_4423-34184) |  |
| @root | 1..1 | SHALL |  | [4423-34194](#C_4423-34194) | 2.16.840.1.113883.10.20.28.4.120 |
| @extension | 1..1 | SHALL |  | [4423-34531](#C_4423-34531) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34212](#C_4423-34212) |  |
| code | 1..1 | SHALL |  | [4423-34185](#C_4423-34185) |  |
| @code | 1..1 | SHALL |  | [4423-34196](#C_4423-34196) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4423-34197](#C_4423-34197) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4423-34213](#C_4423-34213) |  |
| statusCode | 1..1 | SHALL |  | [4423-34186](#C_4423-34186) |  |
| @code | 1..1 | SHALL |  | [4423-34198](#C_4423-34198) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34187](#C_4423-34187) |  |
| low | 1..1 | SHALL |  | [4423-34199](#C_4423-34199) |  |
| value | 1..1 | SHALL | CD | [4423-34188](#C_4423-34188) |  |
| @code | 1..1 | SHALL |  | [4423-34201](#C_4423-34201) | 281647001 |
| @codeSystem | 1..1 | SHALL |  | [4423-34202](#C_4423-34202) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participation | 1..1 | SHALL |  | [4423-34189](#C_4423-34189) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34207](#C_4423-34207) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-34190](#C_4423-34190) |  |
| @classCode | 1..1 | SHALL |  | [4423-34206](#C_4423-34206) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [4423-34191](#C_4423-34191) |  |
| @classCode | 1..1 | SHALL |  | [4423-34204](#C_4423-34204) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-34205](#C_4423-34205) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-34192](#C_4423-34192) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34203](#C_4423-34203) |  |
| participation | 0..1 | MAY |  | [4423-34692](#C_4423-34692) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34694](#C_4423-34694) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34695](#C_4423-34695) |  |
| role | 1..1 | SHALL |  | [4423-34693](#C_4423-34693) |  |
| @classCode | 1..1 | SHALL |  | [4423-34696](#C_4423-34696) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34697](#C_4423-34697) |  |
| participation | 0..\* | MAY |  | [4423-34500](#C_4423-34500) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34501](#C_4423-34501) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| role | 1..1 | SHALL |  | [4423-34502](#C_4423-34502) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..1 | MAY |  | [4423-34966](#C_4423-34966) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34970](#C_4423-34970) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34967](#C_4423-34967) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-34968](#C_4423-34968) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34971](#C_4423-34971) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34969](#C_4423-34969) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-34972](#C_4423-34972) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34974](#C_4423-34974) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-34973](#C_4423-34973) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| participation | 0..1 | MAY |  | [4423-35795](#C_4423-35795) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35797](#C_4423-35797) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35796](#C_4423-35796) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| outboundRelationship | 0..1 | MAY |  | [4423-34497](#C_4423-34497) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34498](#C_4423-34498) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34499](#C_4423-34499) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01](#E_Severity_Observation_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-34682](#C_4423-34682) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34686](#C_4423-34686) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34683](#C_4423-34683) |  |
| @classCode | 1..1 | SHALL |  | [4423-34687](#C_4423-34687) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34688](#C_4423-34688) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| code | 1..1 | SHALL |  | [4423-34684](#C_4423-34684) |  |
| @code | 1..1 | SHALL |  | [4423-34689](#C_4423-34689) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4423-34690](#C_4423-34690) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4423-34685](#C_4423-34685) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34691](#C_4423-34691) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4423-34210).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34211).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34758).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34183).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34184) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.120" (CONF:4423-34194).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34531).
5. SHALL contain exactly one [1..1] id (CONF:4423-34212).
6. SHALL contain exactly one [1..1] code (CONF:4423-34185).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4423-34196).
   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:4423-34197).
7. SHALL contain exactly one [1..1] title (CONF:4423-34213).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34186).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34198).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34187) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4423-34199).  
      Note: QDM Attribute: Relevant dateTime (references the adverse event occurred)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34188).
    1. This value SHALL contain exactly one [1..1] @code="281647001" Adverse Reaction (CONF:4423-34201).
    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:4423-34202).
11. SHALL contain exactly one [1..1] participation (CONF:4423-34189) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34207).
    2. SHALL contain exactly one [1..1] role (CONF:4423-34190).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34206).
       2. This role SHALL contain exactly one [1..1] playingEntity (CONF:4423-34191).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-34204).
          2. This playingEntity SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-34205).
          3. This playingEntity SHALL contain exactly one [1..1] code (CONF:4423-34192).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34203).
12. MAY contain zero or one [0..1] participation (CONF:4423-34692) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34694).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34695).  
       Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34693).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34696).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34697).
13. MAY contain zero or more [0..\*] participation (CONF:4423-34500) such that it  
    Note: QDM Attribute: Facility Location
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34501).
    2. SHALL contain exactly one [1..1] [Facility Location](#E_Facility_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) (CONF:4423-34502).
14. MAY contain zero or one [0..1] participation (CONF:4423-34966) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34970).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34967).
15. MAY contain zero or one [0..1] participation (CONF:4423-34968) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34971).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-34969).
16. MAY contain zero or one [0..1] participation (CONF:4423-34972) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34974).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-34973).
17. MAY contain zero or one [0..1] participation (CONF:4423-35795) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35797).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35796).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34497) 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:4423-34498).
    2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01) (CONF:4423-34499).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34682) such that it  
    Note: QDM Attribute: Type (The characterization of the reaction (e.g., hypersensitivity, rash, gastroenteric symptoms, etc.)
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34686).
    2. SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34683).
       1. This observationCriteria SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4423-34687).
       2. This observationCriteria SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34688).
       3. This observationCriteria SHALL contain exactly one [1..1] code (CONF:4423-34684).
          1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion  (CONF:4423-34689).
          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:4423-34690).
       4. This observationCriteria SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34685).
          1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34691).

Figure 5: Adverse Event (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.120" extension="2019-05-01"/>

</templateId>

<id root="69da3f12-e963-4f6f-baed-3e59cf9b58c8"/>

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

<title value="Adverse Event"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="281647001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT">

<displayName value="Adverse Reaction"/>

</value>

<participation typeCode="CSM">

<role classCode="MANU">

<playingEntity classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingEntity>

</role>

</participation>

</observationCriteria>

Allergy Intolerance (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01 (open)]

Table 15: Allergy Intolerance (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the 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.  
Timing: The Prevalence Period references the time from the onset date to the abatement date.

Table 16: Allergy Intolerance (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34241](#C_4423-34241) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34242](#C_4423-34242) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34759](#C_4423-34759) |  |
| templateId | 1..1 | SHALL |  | [4423-34215](#C_4423-34215) |  |
| item | 1..1 | SHALL |  | [4423-34216](#C_4423-34216) |  |
| @root | 1..1 | SHALL |  | [4423-34228](#C_4423-34228) | 2.16.840.1.113883.10.20.28.4.119 |
| @extension | 1..1 | SHALL |  | [4423-34532](#C_4423-34532) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34243](#C_4423-34243) |  |
| code | 1..1 | SHALL |  | [4423-34217](#C_4423-34217) |  |
| @code | 1..1 | SHALL |  | [4423-34229](#C_4423-34229) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4423-34230](#C_4423-34230) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4423-34244](#C_4423-34244) |  |
| statusCode | 1..1 | SHALL |  | [4423-34218](#C_4423-34218) |  |
| @code | 1..1 | SHALL |  | [4423-34231](#C_4423-34231) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34219](#C_4423-34219) |  |
| low | 0..1 | MAY |  | [4423-34232](#C_4423-34232) |  |
| high | 0..1 | MAY |  | [4423-34233](#C_4423-34233) |  |
| value | 1..1 | SHALL | CD | [4423-34220](#C_4423-34220) |  |
| @code | 1..1 | SHALL |  | [4423-34234](#C_4423-34234) | 106190000 |
| @codeSystem | 1..1 | SHALL |  | [4423-34235](#C_4423-34235) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participation | 1..1 | SHALL |  | [4423-34221](#C_4423-34221) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34240](#C_4423-34240) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-34222](#C_4423-34222) |  |
| @classCode | 1..1 | SHALL |  | [4423-34239](#C_4423-34239) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [4423-34223](#C_4423-34223) |  |
| @classCode | 1..1 | SHALL |  | [4423-34237](#C_4423-34237) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-34238](#C_4423-34238) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-34224](#C_4423-34224) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34236](#C_4423-34236) |  |
| participation | 0..1 | MAY |  | [4423-34710](#C_4423-34710) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34713](#C_4423-34713) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34711](#C_4423-34711) |  |
| low | 1..1 | SHALL |  | [4423-34714](#C_4423-34714) |  |
| role | 1..1 | SHALL |  | [4423-34712](#C_4423-34712) |  |
| @classCode | 1..1 | SHALL |  | [4423-34715](#C_4423-34715) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34716](#C_4423-34716) |  |
| participation | 0..1 | MAY |  | [4423-34979](#C_4423-34979) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34985](#C_4423-34985) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34980](#C_4423-34980) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-34983](#C_4423-34983) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34987](#C_4423-34987) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34984](#C_4423-34984) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35798](#C_4423-35798) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35800](#C_4423-35800) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35799](#C_4423-35799) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-34981](#C_4423-34981) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34986](#C_4423-34986) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-34982](#C_4423-34982) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34214](#C_4423-34214) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34226](#C_4423-34226) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34225](#C_4423-34225) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01](#E_Severity_Observation_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-34704](#C_4423-34704) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34709](#C_4423-34709) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34705](#C_4423-34705) |  |
| @classCode | 1..1 | SHALL |  | [4423-34707](#C_4423-34707) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34708](#C_4423-34708) | EVN |
| code | 1..1 | SHALL |  | [4423-34706](#C_4423-34706) |  |
| @code | 1..1 | SHALL |  | [4423-34698](#C_4423-34698) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4423-34699](#C_4423-34699) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4423-34700](#C_4423-34700) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34701](#C_4423-34701) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4423-34241).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34242).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34759).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34215).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34216) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.119" (CONF:4423-34228).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34532).
5. SHALL contain exactly one [1..1] id (CONF:4423-34243).
6. SHALL contain exactly one [1..1] code (CONF:4423-34217).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4423-34229).
   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:4423-34230).
7. SHALL contain exactly one [1..1] title (CONF:4423-34244).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34218).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34231).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34219) such that it  
   Note: QDM Attribute: Prevalence Period (The Prevalence Period references the time from the onset date to the abatement date)
   1. MAY contain zero or one [0..1] low (CONF:4423-34232).  
      Note: Onset Date
   2. MAY contain zero or one [0..1] high (CONF:4423-34233).  
      Note: Abatement Date
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34220).
    1. This value SHALL contain exactly one [1..1] @code="106190000" Allergy (CONF:4423-34234).
    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:4423-34235).
11. SHALL contain exactly one [1..1] participation (CONF:4423-34221) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34240).
    2. SHALL contain exactly one [1..1] role (CONF:4423-34222).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34239).
       2. This role SHALL contain exactly one [1..1] playingEntity (CONF:4423-34223).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-34237).
          2. This playingEntity SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-34238).
          3. This playingEntity SHALL contain exactly one [1..1] code (CONF:4423-34224).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34236).
12. MAY contain zero or one [0..1] participation (CONF:4423-34710) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34713).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34711).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34714).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34712).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34715).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34716).
13. MAY contain zero or one [0..1] participation (CONF:4423-34979) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34985).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34980).
14. MAY contain zero or one [0..1] participation (CONF:4423-34983) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34987).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-34984).
15. MAY contain zero or one [0..1] participation (CONF:4423-35798) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35800).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35799).
16. MAY contain zero or one [0..1] participation (CONF:4423-34981) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34986).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-34982).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34214) 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:4423-34226).
    2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01) (CONF:4423-34225).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34704) such that it  
    Note: QDM Attribute: Type (The characterization of the reaction (e.g., hypersensitivity, rash, gastroenteric symptoms, etc.)
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34709).
    2. SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34705).
       1. This observationCriteria SHALL contain exactly one [1..1] @classCode="OBS" (CONF:4423-34707).
       2. This observationCriteria SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:4423-34708).
       3. This observationCriteria SHALL contain exactly one [1..1] code (CONF:4423-34706).
          1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion  (CONF:4423-34698).
          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:4423-34699).
       4. This observationCriteria SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34700).
          1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34701).

Figure 6: Allergy Intolerance (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.119" extension="2019-05-01"/>

</templateId>

<id root="dd055113-6d52-4b3f-928e-235f8e52c4c0"/>

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

<title value="Allergy Intolerance"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="106190000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT">

<displayName value="Allergy"/>

</value>

<participation typeCode="CSM">

<role classCode="MANU">

<playingEntity classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingEntity>

</role>

</participation>

</observationCriteria>

Assessment, Order (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01 (open)]

Table 17: Assessment, Order (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Assessment, Order.

Data elements that meet these criteria using this datatype 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 QDM category and its corresponding value set.  
Timing: The time the order is authored (i.e., provided to the patient).  
NOTE: 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. Measure developers should address feasibility of clinical workflow to capture Assessment, Order when evaluating measures.

Table 18: Assessment, Order (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34673](#C_4423-34673) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34674](#C_4423-34674) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-34675](#C_4423-34675) |  |
| templateId | 1..1 | SHALL |  | [4423-34654](#C_4423-34654) |  |
| item | 1..1 | SHALL |  | [4423-34655](#C_4423-34655) |  |
| @root | 1..1 | SHALL |  | [4423-34664](#C_4423-34664) | 2.16.840.1.113883.10.20.28.4.131 |
| @extension | 1..1 | SHALL |  | [4423-34665](#C_4423-34665) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34676](#C_4423-34676) |  |
| code | 1..1 | SHALL |  | [4423-34656](#C_4423-34656) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34666](#C_4423-34666) |  |
| title | 1..1 | SHALL |  | [4423-34677](#C_4423-34677) |  |
| statusCode | 1..1 | SHALL |  | [4423-34657](#C_4423-34657) |  |
| @code | 1..1 | SHALL |  | [4423-34667](#C_4423-34667) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-34660](#C_4423-34660) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34672](#C_4423-34672) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34661](#C_4423-34661) |  |
| low | 1..1 | SHALL |  | [4423-34669](#C_4423-34669) |  |
| role | 1..1 | SHALL |  | [4423-34662](#C_4423-34662) |  |
| @classCode | 1..1 | SHALL |  | [4423-34670](#C_4423-34670) | ROL |
| id | 0..1 | MAY |  | [4423-34671](#C_4423-34671) |  |
| participation | 0..1 | MAY |  | [4423-34988](#C_4423-34988) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34994](#C_4423-34994) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34989](#C_4423-34989) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-34992](#C_4423-34992) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34996](#C_4423-34996) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34993](#C_4423-34993) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35801](#C_4423-35801) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35803](#C_4423-35803) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35802](#C_4423-35802) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-34990](#C_4423-34990) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34995](#C_4423-34995) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-34991](#C_4423-34991) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34652](#C_4423-34652) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34663](#C_4423-34663) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-34653](#C_4423-34653) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34673).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34674).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-34675).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34654).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34655) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.131" (CONF:4423-34664).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34665).
5. SHALL contain exactly one [1..1] id (CONF:4423-34676).
6. SHALL contain exactly one [1..1] code (CONF:4423-34656).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34666).
7. SHALL contain exactly one [1..1] title (CONF:4423-34677).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34657).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34667).
9. MAY contain zero or one [0..1] participation (CONF:4423-34660) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34672).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34661).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34669).  
         Note: QDM Attribute: Author Time - the time the order is authored (i.e., provided to the patient)
   3. SHALL contain exactly one [1..1] role (CONF:4423-34662).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34670).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-34671).
10. MAY contain zero or one [0..1] participation (CONF:4423-34988) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34994).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34989).
11. MAY contain zero or one [0..1] participation (CONF:4423-34992) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34996).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-34993).
12. MAY contain zero or one [0..1] participation (CONF:4423-35801) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35803).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35802).
13. MAY contain zero or one [0..1] participation (CONF:4423-34990) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34995).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-34991).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34652) 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:4423-34663).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-34653).

Figure 7: Assessment, Order (V2) Example

<observationCriteria classCode="OBS" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.131" extension="2019-05-01"/>

</templateId>

<id root="904c1629-8a5d-4a33-846e-994a97a3caf0"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Assessment, Order"/>

<statusCode code="active"/>

</observationCriteria>

Assessment, Performed (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01 (open)]

Table 19: Assessment, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: 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.  
Timing: The time the assessment is performed; Relevant dateTime references timing for an assessment that occurs at a single point in time. Relevant Period references a start and stop time for an assessment that occurs over a time interval. author time. Author dateTime references the time the assessment was recorded and applies only when the record has no reference to the time the assessment was performed and only the recorded time is available.  
Negation of QDM datatype-related actions for a reason always use the author dateTime attribute to reference timing and must not use Relevant Period.

Table 20: Assessment, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34142](#C_4423-34142) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34143](#C_4423-34143) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-34144](#C_4423-34144) |  |
| templateId | 1..1 | SHALL |  | [4423-34126](#C_4423-34126) |  |
| item | 1..1 | SHALL |  | [4423-34127](#C_4423-34127) |  |
| @root | 1..1 | SHALL |  | [4423-34134](#C_4423-34134) | 2.16.840.1.113883.10.20.28.4.117 |
| @extension | 1..1 | SHALL |  | [4423-34254](#C_4423-34254) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34145](#C_4423-34145) |  |
| code | 1..1 | SHALL |  | [4423-34128](#C_4423-34128) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34136](#C_4423-34136) |  |
| title | 1..1 | SHALL |  | [4423-34146](#C_4423-34146) |  |
| statusCode | 1..1 | SHALL |  | [4423-34129](#C_4423-34129) |  |
| @code | 1..1 | SHALL |  | [4423-34137](#C_4423-34137) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-35956](#C_4423-35956) |  |
| low | 0..1 | MAY |  | [4423-35957](#C_4423-35957) |  |
| high | 0..1 | MAY |  | [4423-35958](#C_4423-35958) |  |
| value | 0..1 | MAY |  | [4423-34147](#C_4423-34147) |  |
| methodCode | 0..1 | MAY |  | [4423-34246](#C_4423-34246) |  |
| item | 0..1 | SHOULD |  | [4423-34247](#C_4423-34247) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34249](#C_4423-34249) |  |
| participation | 0..1 | MAY |  | [4423-34735](#C_4423-34735) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34738](#C_4423-34738) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34736](#C_4423-34736) |  |
| low | 1..1 | SHALL |  | [4423-34739](#C_4423-34739) |  |
| role | 1..1 | SHALL |  | [4423-34737](#C_4423-34737) |  |
| @classCode | 1..1 | SHALL |  | [4423-34741](#C_4423-34741) | ROL |
| id | 0..1 | MAY |  | [4423-34740](#C_4423-34740) |  |
| participation | 0..1 | MAY |  | [4423-34997](#C_4423-34997) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35003](#C_4423-35003) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-34998](#C_4423-34998) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35001](#C_4423-35001) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35005](#C_4423-35005) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35002](#C_4423-35002) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35804](#C_4423-35804) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35806](#C_4423-35806) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35805](#C_4423-35805) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) | |
| participation | 0..1 | MAY |  | [4423-34999](#C_4423-34999) |  | |
| @typeCode | 1..1 | SHALL |  | [4423-35004](#C_4423-35004) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART | |
| patient | 1..1 | SHALL |  | [4423-35000](#C_4423-35000) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) | |
| outboundRelationship | 0..1 | MAY |  | [4423-34245](#C_4423-34245) |  | |
| @typeCode | 1..1 | SHALL |  | [4423-34250](#C_4423-34250) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON | |
| observationCriteria | 1..1 | SHALL |  | [4423-34248](#C_4423-34248) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) | |
| outboundRelationship | 0..\* | MAY |  | [4423-34608](#C_4423-34608) |  | |
| @typeCode | 1..1 | SHALL |  | [4423-34609](#C_4423-34609) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR | |
| observationCriteria | 1..1 | SHALL |  | [4423-34610](#C_4423-34610) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) | |
| outboundRelationship | 0..\* | MAY |  | [4423-34732](#C_4423-34732) |  | |
| @typeCode | 1..1 | SHALL |  | [4423-34733](#C_4423-34733) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR | |
| observationCriteria | 1..1 | SHALL |  | [4423-34734](#C_4423-34734) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01](#E_Related_To_V1) | |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34142).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34143).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-34144).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34126).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34127) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.117" (CONF:4423-34134).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34254).
5. SHALL contain exactly one [1..1] id (CONF:4423-34145).
6. SHALL contain exactly one [1..1] code (CONF:4423-34128).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34136).
7. SHALL contain exactly one [1..1] title (CONF:4423-34146).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34129).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34137).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-35956) such that it  
   Note: QDM Attribute: Relevant Period (The Relevant Period references the time from the onset date to the abatement date)
   1. MAY contain zero or one [0..1] low (CONF:4423-35957).  
      Note: start time of Relevant Period. QDM Attribute: Relevant dateTime.
   2. MAY contain zero or one [0..1] high (CONF:4423-35958).  
      Note: stop time of Relevant Period
10. MAY contain zero or one [0..1] value (CONF:4423-34147).  
    Note: QDM Attribute: Result
11. MAY contain zero or one [0..1] methodCode (CONF:4423-34246).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHOULD contain zero or one [0..1] item (CONF:4423-34247).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34249).
12. MAY contain zero or one [0..1] participation (CONF:4423-34735) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34738).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34736).  
       Note: QDM Attribute: Author dateTime (The time the assessment is completed)
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34739).
    3. SHALL contain exactly one [1..1] role (CONF:4423-34737).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34741).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34740).
13. MAY contain zero or one [0..1] participation (CONF:4423-34997) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35003).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34998).
14. MAY contain zero or one [0..1] participation (CONF:4423-35001) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35005).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35002).
15. MAY contain zero or one [0..1] participation (CONF:4423-35804) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35806).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35805).
16. MAY contain zero or one [0..1] participation (CONF:4423-34999) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35004).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35000).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34245) 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:4423-34250).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-34248).
18. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34608) such that it  
    Note: QDM Attribute: Component
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34609).
    2. SHALL contain exactly one [1..1] [Component](#E_Component_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01) (CONF:4423-34610).
19. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34732) such that it  
    Note: QDM Attribute: Related To
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34733).
    2. SHALL contain exactly one [1..1] [Related To](#E_Related_To_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01) (CONF:4423-34734).

Figure 8: Assessment, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.117" extension="2019-05-01"/>

</templateId>

<id root="08f25bc3-5eff-49a5-b2ec-f66f1027574c"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Assessment, Performed"/>

<statusCode code="completed"/>

</observationCriteria>

Assessment, Recommended (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01 (open)]

Table 21: Assessment, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: 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. This template represents a recommendation to perform an assessment.

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Timing: The time the recommendation is authored (i.e., provided to the patient).

Table 22: Assessment, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34165](#C_4423-34165) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34166](#C_4423-34166) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-34167](#C_4423-34167) |  |
| templateId | 1..1 | SHALL |  | [4423-34149](#C_4423-34149) |  |
| item | 1..1 | SHALL |  | [4423-34150](#C_4423-34150) |  |
| @root | 1..1 | SHALL |  | [4423-34157](#C_4423-34157) | 2.16.840.1.113883.10.20.28.4.118 |
| @extension | 1..1 | SHALL |  | [4423-34273](#C_4423-34273) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34168](#C_4423-34168) |  |
| code | 1..1 | SHALL |  | [4423-34151](#C_4423-34151) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34159](#C_4423-34159) |  |
| title | 1..1 | SHALL |  | [4423-34169](#C_4423-34169) |  |
| statusCode | 1..1 | SHALL |  | [4423-34152](#C_4423-34152) |  |
| @code | 1..1 | SHALL |  | [4423-34160](#C_4423-34160) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-34270](#C_4423-34270) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34274](#C_4423-34274) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34271](#C_4423-34271) |  |
| low | 1..1 | SHALL |  | [4423-34275](#C_4423-34275) |  |
| role | 1..1 | SHALL |  | [4423-34272](#C_4423-34272) |  |
| @classCode | 1..1 | SHALL |  | [4423-34276](#C_4423-34276) | ROL |
| participation | 0..1 | MAY |  | [4423-35006](#C_4423-35006) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35012](#C_4423-35012) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35007](#C_4423-35007) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35010](#C_4423-35010) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35014](#C_4423-35014) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35011](#C_4423-35011) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35807](#C_4423-35807) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35809](#C_4423-35809) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35808](#C_4423-35808) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35008](#C_4423-35008) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35013](#C_4423-35013) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35009](#C_4423-35009) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34264](#C_4423-34264) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34269](#C_4423-34269) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-34267](#C_4423-34267) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34165).
2. SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34166).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-34167).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34149).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34150) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.118" (CONF:4423-34157).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34273).
5. SHALL contain exactly one [1..1] id (CONF:4423-34168).
6. SHALL contain exactly one [1..1] code (CONF:4423-34151).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34159).
7. SHALL contain exactly one [1..1] title (CONF:4423-34169).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34152).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34160).
9. MAY contain zero or one [0..1] participation (CONF:4423-34270) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34274).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34271).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34275).  
         Note: QDM Attribute: Author Time - the time the recommendation is authored (i.e., provided to the patient)
   3. SHALL contain exactly one [1..1] role (CONF:4423-34272).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34276).
10. MAY contain zero or one [0..1] participation (CONF:4423-35006) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35012).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35007).
11. MAY contain zero or one [0..1] participation (CONF:4423-35010) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35014).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35011).
12. MAY contain zero or one [0..1] participation (CONF:4423-35807) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35809).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35808).
13. MAY contain zero or one [0..1] participation (CONF:4423-35008) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35013).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35009).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34264) 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:4423-34269).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-34267).

Figure 9: Assessment, Recommended (V3) Example

<observationCriteria classCode="OBS" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.118" extension="2019-05-01"/>

</templateId>

<id root="904c1629-8a5d-4a33-846e-994a97a3caf0"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Assessment, Recommended"/>

<statusCode code="active"/>

</observationCriteria>

Care Goal (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01 (open)]

Table 23: Care Goal (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Related To](#E_Related_To_V1) (optional)  [Target Outcome](#E_Target_Outcome_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Care Goal.  
Care Goal represents 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. Specifically, a care plan is composed of the following elements:  
• Problem, which is managed by other QDM standard categories (condition/diagnosis/ problem) and their related data elements.  
• Procedure, which is managed by other standard categories and their related data elements. Note that procedures are a continuum of interventions ranging from actions patients can do for themselves to those that can be performed by others (caregivers or clinical professionals), including detailed complex surgical procedures requiring highly trained physicians, nurses, and state-of-the-art facilities.  
• Goal, which is what is expected to happen.  
• Outcome, which is what happened. An outcome can be shown by other QDM standard categories and their related data elements.

Table 24: Care Goal (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-27869](#C_4423-27869) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-27870](#C_4423-27870) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34760](#C_4423-34760) |  |
| templateId | 1..1 | SHALL |  | [4423-27872](#C_4423-27872) |  |
| item | 1..1 | SHALL |  | [4423-28447](#C_4423-28447) |  |
| @root | 1..1 | SHALL |  | [4423-28448](#C_4423-28448) | 2.16.840.1.113883.10.20.28.4.7 |
| @extension | 1..1 | SHALL |  | [4423-33051](#C_4423-33051) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32479](#C_4423-32479) |  |
| code | 1..1 | SHALL |  | [4423-27873](#C_4423-27873) |  |
| @code | 1..1 | SHALL |  | [4423-27874](#C_4423-27874) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4423-27875](#C_4423-27875) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4423-32480](#C_4423-32480) |  |
| statusCode | 1..1 | SHALL |  | [4423-32481](#C_4423-32481) |  |
| @code | 1..1 | SHALL |  | [4423-32482](#C_4423-32482) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-32488](#C_4423-32488) |  |
| low | 0..1 | MAY |  | [4423-32489](#C_4423-32489) |  |
| high | 0..1 | MAY |  | [4423-32490](#C_4423-32490) |  |
| activityTime | 0..1 | MAY | IVL\_TS | [4423-35959](#C_4423-35959) |  |
| low | 1..1 | SHALL |  | [4423-35960](#C_4423-35960) |  |
| value | 1..1 | SHALL | CD | [4423-27876](#C_4423-27876) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32483](#C_4423-32483) |  |
| participation | 0..1 | MAY |  | [4423-35015](#C_4423-35015) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35021](#C_4423-35021) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35016](#C_4423-35016) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35017](#C_4423-35017) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35022](#C_4423-35022) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35018](#C_4423-35018) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35810](#C_4423-35810) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35812](#C_4423-35812) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35811](#C_4423-35811) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35019](#C_4423-35019) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35023](#C_4423-35023) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35020](#C_4423-35020) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..\* | MAY |  | [4423-33032](#C_4423-33032) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34743](#C_4423-34743) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34744](#C_4423-34744) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01](#E_Related_To_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34742](#C_4423-34742) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34745](#C_4423-34745) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34746](#C_4423-34746) | [Target Outcome (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01](#E_Target_Outcome_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-27869).
2. SHALL contain exactly one [1..1] @moodCode="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-27870).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34760).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-27872).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-28447) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.7" (CONF:4423-28448).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33051).
5. SHALL contain exactly one [1..1] id (CONF:4423-32479).
6. SHALL contain exactly one [1..1] code (CONF:4423-27873).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:4423-27874).
   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:4423-27875).
7. SHALL contain exactly one [1..1] title (CONF:4423-32480).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32481).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32482).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-32488) such that it  
   Note: QDM Attribute: Relevant Period (The Relevant Period references the period between Start Time and Stop Time)
   1. MAY contain zero or one [0..1] low (CONF:4423-32489).  
      Note: Start dateTime (when the goal is recorded, and therefore should be considered effective)
   2. MAY contain zero or one [0..1] high (CONF:4423-32490).  
      Note: Stop dateTime (when the target outcome is expected to be met)
10. MAY contain zero or one [0..1] activityTime (CONF:4423-35959).
    1. The activityTime, if present, SHALL contain exactly one [1..1] low (CONF:4423-35960).  
       Note: QDM Attribute: statusDate (when the goal took effect)
11. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-27876).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32483).
12. MAY contain zero or one [0..1] participation (CONF:4423-35015).  
    Note: QDM Attribute: Performer
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35021).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35016).
13. MAY contain zero or one [0..1] participation (CONF:4423-35017).  
    Note: QDM Attribute: Performer
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35022).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35018).
14. MAY contain zero or one [0..1] participation (CONF:4423-35810).  
    Note: QDM Attribute: Performer
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35812).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35811).
15. MAY contain zero or one [0..1] participation (CONF:4423-35019).  
    Note: QDM Attribute: Performer
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35023).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35020).
16. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-33032) such that it  
    Note: QDM Attribute: Related To
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34743).
    2. SHALL contain exactly one [1..1] [Related To](#E_Related_To_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01) (CONF:4423-34744).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34742) such that it  
    Note: QDM Attribute: Target Outcome
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34745).
    2. SHALL contain exactly one [1..1] [Target Outcome](#E_Target_Outcome_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01) (CONF:4423-34746).

Figure 10: Care Goal (V3) Example

<observationCriteria classCode="OBS" moodCode="GOL">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.7" extension="2019-05-01"/>

</templateId>

<id root="f0a729a3-6fe8-4e79-acee-b4dd16b3e755"/>

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

<title value="Care Goal"/>

<statusCode code="active"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Cause

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01 (open)]

Table 25: Cause Contexts

| Contained By: | Contains: |
| --- | --- |
| [Patient Characteristic Expired](#E_Patient_Characteristic_Expired_V1) (optional) |  |

This template represents the QDM attribute: Cause.  
This represents the recorded cause of death.

Table 26: Cause Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-33456](#C_3335-33456) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-33457](#C_3335-33457) | EVN |
| templateId | 1..1 | SHALL |  | [3335-33453](#C_3335-33453) |  |
| item | 1..1 | SHALL |  | [3335-33454](#C_3335-33454) |  |
| @root | 1..1 | SHALL |  | [3335-33458](#C_3335-33458) | 2.16.840.1.113883.10.20.28.4.105 |
| @extension | 1..1 | SHALL |  | [3335-34647](#C_3335-34647) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-33455](#C_3335-33455) |  |
| @code | 1..1 | SHALL |  | [3335-33460](#C_3335-33460) | 42752001 |
| @codeSystem | 1..1 | SHALL |  | [3335-33461](#C_3335-33461) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| value | 1..1 | SHALL | CD | [3335-33462](#C_3335-33462) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-34663](#C_3335-34663) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-33456).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:3335-33457).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-33453).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-33454) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.105" (CONF:3335-33458).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34647).
4. SHALL contain exactly one [1..1] code (CONF:3335-33455).
   1. This code SHALL contain exactly one [1..1] @code="42752001" Due to (CONF:3335-33460).
   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:3335-33461).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-33462).
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-34663).

Figure 11: Cause Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.105" extension="2017-05-01"/>

</templateId>

<id root="302625d2-e41a-4d51-ba11-af0dfc81a11b"/>

<code code="42752001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Due to"/>

</code>

<title value="Cause"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Communication, Performed (V2)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01 (open)]

Table 27: Communication, Performed (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (required)  [Related To](#E_Related_To_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Communication, Performed  
Communication is a conveyance of information from one entity (e.g., person, organization, or device) to another.  
Timing: sent dateTime – when the communication was sent; received dateTime – when the communication was received.  
Author dateTime the time the communication is documented (specifically significant for negation rationale, i.e., Communication Not Performed).

Table 28: Communication, Performed (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-35042](#C_4423-35042) | ACT |
| @moodCode | 1..1 | SHALL |  | [4423-35043](#C_4423-35043) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-35044](#C_4423-35044) |  |
| templateId | 1..1 | SHALL |  | [4423-35025](#C_4423-35025) |  |
| item | 1..1 | SHALL |  | [4423-35026](#C_4423-35026) |  |
| @root | 1..1 | SHALL |  | [4423-35035](#C_4423-35035) | 2.16.840.1.113883.10.20.28.4.132 |
| @extension | 1..1 | SHALL |  | [4423-35036](#C_4423-35036) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-35045](#C_4423-35045) |  |
| code | 0..1 | MAY |  | [4423-35028](#C_4423-35028) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35038](#C_4423-35038) |  |
| title | 1..1 | SHALL |  | [4423-35046](#C_4423-35046) |  |
| statusCode | 1..1 | SHALL |  | [4423-35027](#C_4423-35027) |  |
| @code | 1..1 | SHALL |  | [4423-35037](#C_4423-35037) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-35031](#C_4423-35031) |  |
| low | 0..1 | MAY |  | [4423-35040](#C_4423-35040) |  |
| high | 0..1 | MAY |  | [4423-35041](#C_4423-35041) |  |
| participation | 0..1 | MAY |  | [4423-35032](#C_4423-35032) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35047](#C_4423-35047) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34717](#C_4423-34717) |  |
| role | 1..1 | SHALL |  | [4423-35033](#C_4423-35033) |  |
| @classCode | 1..1 | SHALL |  | [4423-34718](#C_4423-34718) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34719](#C_4423-34719) |  |
| participation | 0..1 | MAY |  | [4423-34865](#C_4423-34865) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34866](#C_4423-34866) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VIA |
| modeCode | 1..1 | SHALL |  | [4423-34867](#C_4423-34867) |  |
| role | 1..1 | SHALL |  | [4423-34868](#C_4423-34868) |  |
| @classCode | 1..1 | SHALL |  | [4423-34870](#C_4423-34870) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| participation | 0..1 | MAY |  | [4423-34720](#C_4423-34720) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34854](#C_4423-34854) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4423-34721](#C_4423-34721) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35055](#C_4423-35055) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35059](#C_4423-35059) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4423-35056](#C_4423-35056) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35057](#C_4423-35057) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35060](#C_4423-35060) | DIST |
| patient | 1..1 | SHALL |  | [4423-35058](#C_4423-35058) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| participation | 0..1 | MAY |  | [4423-34722](#C_4423-34722) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34857](#C_4423-34857) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| role | 1..1 | SHALL |  | [4423-34853](#C_4423-34853) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35048](#C_4423-35048) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35050](#C_4423-35050) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| role | 1..1 | SHALL |  | [4423-35049](#C_4423-35049) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35813](#C_4423-35813) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35815](#C_4423-35815) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35814](#C_4423-35814) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35052](#C_4423-35052) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35054](#C_4423-35054) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| patient | 1..1 | SHALL |  | [4423-35053](#C_4423-35053) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 1..1 | SHALL |  | [4423-34681](#C_4423-34681) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35034](#C_4423-35034) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-35024](#C_4423-35024) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..\* | MAY |  | [4423-35029](#C_4423-35029) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35039](#C_4423-35039) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35030](#C_4423-35030) | [Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01](#E_Related_To_V1) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:4423-35042).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-35043).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-35044).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-35025).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-35026) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.132" (CONF:4423-35035).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35036).
5. SHALL contain exactly one [1..1] id (CONF:4423-35045).
6. MAY contain zero or one [0..1] code (CONF:4423-35028).  
   Note: QDM Attribute: Category - The type of message conveyed by a communication (e.g., notification, alert, reminder, instruction, etc.).
   1. The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35038).
7. SHALL contain exactly one [1..1] title (CONF:4423-35046).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-35027).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-35037).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-35031) such that it
   1. MAY contain zero or one [0..1] low (CONF:4423-35040).  
      Note: QDM Attribute: sent dateTime – The time the communication is sent
   2. MAY contain zero or one [0..1] high (CONF:4423-35041).  
      Note: QDM Attribute: received dateTime – The time the communication is received
10. MAY contain zero or one [0..1] participation (CONF:4423-35032) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35047).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34717).  
       Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-35033).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34718).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34719).
11. MAY contain zero or one [0..1] participation (CONF:4423-34865) 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:4423-34866).
    2. SHALL contain exactly one [1..1] modeCode (CONF:4423-34867).  
       Note: QDM Attribute: Medium - A channel used for a communication (e.g., fax, email, etc.)
    3. SHALL contain exactly one [1..1] role (CONF:4423-34868).
       1. This role SHALL contain exactly one [1..1] @classCode="ASSIGNED" Assigned (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34870).
12. MAY contain zero or one [0..1] participation (CONF:4423-34720) such that it  
    Note: QDM Attribute: Sender
    1. SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34854).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34721).
13. MAY contain zero or one [0..1] participation (CONF:4423-35055) such that it  
    Note: QDM Attribute: Sender
    1. SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35059).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35056).
14. MAY contain zero or one [0..1] participation (CONF:4423-35057) such that it  
    Note: QDM Attribute: Sender
    1. SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CONF:4423-35060).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35058).
15. MAY contain zero or one [0..1] participation (CONF:4423-34722) such that it  
    Note: QDM Attribute: Recipient
    1. SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34857).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-34853).
16. MAY contain zero or one [0..1] participation (CONF:4423-35048) such that it  
    Note: QDM Attribute: Recipient
    1. SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35050).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35049).
17. MAY contain zero or one [0..1] participation (CONF:4423-35813) such that it  
    Note: QDM Attribute: Recipient
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35815).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35814).
18. MAY contain zero or one [0..1] participation (CONF:4423-35052) such that it  
    Note: QDM Attribute: Recipient
    1. SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35054).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35053).
19. SHALL contain exactly one [1..1] outboundRelationship (CONF:4423-34681) such that it  
    Note: QDM Attribute: Code - The reason for the communication
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35034).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-35024).
20. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-35029) such that it  
    Note: QDM Attribute: Related To
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35039).
    2. SHALL contain exactly one [1..1] [Related To](#E_Related_To_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01) (CONF:4423-35030).

Figure 12: Communication, Performed (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.132" extension="2019-05-01"/>

</templateId>

<id root="6bf11fc2-78f9-4517-bafa-7988b350e188"/>

<title value="Communication, Performed"/>

<statusCode code="completed"/>

<outboundRelationship>

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.88" extension="2017-05-01"/>

</templateId>

<id root="05c07740-1f8d-417e-a9f2-fc769b1d342d"/>

<code code="410666004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Reason"/>

</code>

<title value="Reason"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

</outboundRelationship>

</actCriteria>

Component

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 (open)]

Table 29: Component Contexts

| Contained By: | Contains: |
| --- | --- |
| [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional) |  |

This template represents the QDM attribute: Component  
Elements included or documented as part of evaluations or test panels. Examples include: specific questions included in assesments, tests included in a laboratory test panel, observations included in a cardiac exam during a physical examination.

Table 30: Component Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-34576](#C_3335-34576) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-34577](#C_3335-34577) | EVN |
| templateId | 1..1 | SHALL |  | [3335-34570](#C_3335-34570) |  |
| item | 1..1 | SHALL |  | [3335-34571](#C_3335-34571) |  |
| @root | 1..1 | SHALL |  | [3335-34573](#C_3335-34573) | 2.16.840.1.113883.10.20.28.4.121 |
| @extension | 1..1 | SHALL |  | [3335-34580](#C_3335-34580) | 2017-05-01 |
| code | 0..1 | MAY |  | [3335-34572](#C_3335-34572) |  |
| value | 0..1 | MAY |  | [3335-34579](#C_3335-34579) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-34576).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:3335-34577).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-34570) such that it
   1. SHALL contain exactly one [1..1] item (CONF:3335-34571) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.121" (CONF:3335-34573).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34580).
4. MAY contain zero or one [0..1] code (CONF:3335-34572).  
   Note: Code
5. MAY contain zero or one [0..1] value (CONF:3335-34579).  
   Note: Result

Figure 13: Component Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.121" extension="2017-05-01"/>

</templateId>

<code code="32412-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="5 minute Apgar Heart rate"/>

</code>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Laboratory Test Component

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01 (open)]

Table 31: Laboratory Test Component Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional) | [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) (optional) |

This template represents the QDM attribute: Component (for Laboratory Test, Performed)

Table 32: Laboratory Test Component Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-34588](#C_3335-34588) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-34589](#C_3335-34589) | EVN |
| templateId | 1..1 | SHALL |  | [3335-34581](#C_3335-34581) |  |
| item | 1..1 | SHALL |  | [3335-34582](#C_3335-34582) |  |
| @root | 1..1 | SHALL |  | [3335-34584](#C_3335-34584) | 2.16.840.1.113883.10.20.28.4.126 |
| @extension | 1..1 | SHALL |  | [3335-34585](#C_3335-34585) | 2017-05-01 |
| outboundRelationship | 0..1 | MAY |  | [3335-34604](#C_3335-34604) |  |
| @typeCode | 1..1 | SHALL |  | [3335-34605](#C_3335-34605) | REFR |
| observationCriteria | 1..1 | SHALL |  | [3335-34616](#C_3335-34616) | [Laboratory Test Reference Range (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01](#E_Laboratory_Test_Reference_Range) |

1. Conforms to [Component](#E_Component_1) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-34588).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:3335-34589).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-34581) such that it
   1. SHALL contain exactly one [1..1] item (CONF:3335-34582) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.126" (CONF:3335-34584).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34585).
5. MAY contain zero or one [0..1] outboundRelationship (CONF:3335-34604) such that it  
   Note: Reference Range
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:3335-34605).
   2. SHALL contain exactly one [1..1] [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01) (CONF:3335-34616).

Figure 14: Laboratory Test Component Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.121" extension="2017-05-01"/>

<item root="2.16.840.1.113883.10.20.28.4.126" extension="2017-05-01"/>

</templateId>

<id root="edd94e15-dc95-49d6-8a65-74cb2b87c93b"/>

<code code="2339-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Glucose [Mass/?volume] in Blood"/>

</code>

<title value="Cause"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Days Supplied

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 (open)]

Table 33: Days Supplied Contexts

| Contained By: | Contains: |
| --- | --- |
| [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional) |  |

This template represents the QDM Attribute: Days Supplied, which is number of days supplied.

Without this attribute, number of days could be calculated using two options:  
[supply / frequency] = # days supplied  
[60 doses / 1 every 12 hours] = 30 days supplied  
[relevant period stop – relevant period start] = # days  
[September 30 – August 31] = 30 days supplied  
The challenge of these two options are that frequency is a text field, which requires conversion to a code indicating number of days, for example, 1 every 12 hours = 2 (per day), and 1 every 6 hours = 4 (per day). Relevant period is not often available (i.e., anticipated start and stop dates).

The daysSupplied attribute allows number of days supplied be specified directly

Table 34: Days Supplied Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3372-34889](#C_3372-34889) | SPLY |
| @moodCode | 1..1 | SHALL |  | [3372-34890](#C_3372-34890) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3372-34885](#C_3372-34885) |  |
| item | 1..1 | SHALL |  | [3372-34886](#C_3372-34886) |  |
| @root | 1..1 | SHALL |  | [3372-34887](#C_3372-34887) | 2.16.840.1.113883.10.20.28.4.133 |
| @extension | 1..1 | SHALL |  | [3372-34888](#C_3372-34888) | 2018-05-01 |
| quantity | 1..1 | SHALL |  | [3372-34893](#C_3372-34893) |  |
| @unit | 1..1 | SHALL |  | [3372-34894](#C_3372-34894) | urn:oid:2.16.840.1.113883.6.8 (UCUM) = d |

1. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CONF:3372-34889).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3372-34890).
3. SHALL contain exactly one [1..1] templateId (CONF:3372-34885).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3372-34886) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.133" (CONF:3372-34887).
      2. SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34888).
4. SHALL contain exactly one [1..1] quantity (CONF:3372-34893).  
   Note: QDM Attribute: daysSupplied
   1. This quantity SHALL contain exactly one [1..1] @unit="d" Day (CodeSystem: UCUM urn:oid:2.16.840.1.113883.6.8) (CONF:3372-34894).

Figure 15: Days Supplied Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.133" extension="2018-05-01"/>

</templateId>

<id root="a8da5449-2a1b-43e4-94b5-51cfb346c074"/>

<title value="Days Supplied"/>

<quantity xsi:type="PQ" value="10" unit="d"/>

</supplyCriteria>

Device, Applied (V3)

[procedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01 (open)]

Table 35: Device, Applied (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Device, Applied.

This represents the application of an instrument, apparatus, implement, machine, contrivance, implant, in-vitro reagent, or other similar or related article, including a component part or accessory, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.

Timing: Relevant dateTime addresses The time the device is applied if it was used at a single point in time; Relevant Period references a start and stop time for a device if the application occurred over a time interval. Author dateTime references the time the device application was recorded and applies only when the record has no reference to the actual time the device was applied and only the recorded time is available.

Table 36: Device, Applied (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31302](#C_4423-31302) | PROC |
| @moodCode | 1..1 | SHALL |  | [4423-31303](#C_4423-31303) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-31304](#C_4423-31304) |  |
| templateId | 1..1 | SHALL |  | [4423-31305](#C_4423-31305) |  |
| item | 1..1 | SHALL |  | [4423-31306](#C_4423-31306) |  |
| @root | 1..1 | SHALL |  | [4423-31307](#C_4423-31307) | 2.16.840.1.113883.10.20.28.4.13 |
| @extension | 1..1 | SHALL |  | [4423-33361](#C_4423-33361) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-35818](#C_4423-35818) |  |
| code | 1..1 | SHALL |  | [4423-31517](#C_4423-31517) |  |
| @code | 1..1 | SHALL |  | [4423-33062](#C_4423-33062) | 360030002 |
| @codeSystem | 1..1 | SHALL |  | [4423-33063](#C_4423-33063) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-31309](#C_4423-31309) |  |
| statusCode | 1..1 | SHALL |  | [4423-31310](#C_4423-31310) |  |
| @code | 1..1 | SHALL |  | [4423-31311](#C_4423-31311) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31312](#C_4423-31312) |  |
| low | 0..1 | MAY |  | [4423-31313](#C_4423-31313) |  |
| high | 0..1 | MAY |  | [4423-31314](#C_4423-31314) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-31485](#C_4423-31485) |  |
| item | 1..1 | SHALL |  | [4423-33060](#C_4423-33060) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33061](#C_4423-33061) |  |
| participation | 1..1 | SHALL |  | [4423-31315](#C_4423-31315) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31316](#C_4423-31316) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| role | 1..1 | SHALL |  | [4423-31317](#C_4423-31317) |  |
| @classCode | 1..1 | SHALL |  | [4423-31318](#C_4423-31318) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4423-31319](#C_4423-31319) |  |
| @classCode | 1..1 | SHALL |  | [4423-31320](#C_4423-31320) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = DEV |
| @determinerCode | 1..1 | SHALL |  | [4423-31321](#C_4423-31321) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-31322](#C_4423-31322) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31323](#C_4423-31323) |  |
| participation | 0..1 | MAY |  | [4423-34503](#C_4423-34503) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34506](#C_4423-34506) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34504](#C_4423-34504) |  |
| low | 1..1 | SHALL |  | [4423-34507](#C_4423-34507) |  |
| role | 1..1 | SHALL |  | [4423-34505](#C_4423-34505) |  |
| @classCode | 1..1 | SHALL |  | [4423-34508](#C_4423-34508) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34509](#C_4423-34509) |  |
| participation | 0..1 | MAY |  | [4423-35061](#C_4423-35061) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35067](#C_4423-35067) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35062](#C_4423-35062) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35065](#C_4423-35065) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35069](#C_4423-35069) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35066](#C_4423-35066) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35816](#C_4423-35816) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35817](#C_4423-35817) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35819](#C_4423-35819) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35063](#C_4423-35063) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35068](#C_4423-35068) | PART |
| patient | 1..1 | SHALL |  | [4423-35064](#C_4423-35064) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31330](#C_4423-31330) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31331](#C_4423-31331) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31332](#C_4423-31332) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CONF:4423-31302).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31303).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31304).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31305) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4423-31306) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.13" (CONF:4423-31307).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33361).
5. SHALL contain exactly one [1..1] id (CONF:4423-35818).
6. SHALL contain exactly one [1..1] code (CONF:4423-31517).
   1. This code SHALL contain exactly one [1..1] @code="360030002" Application of Device  (CONF:4423-33062).
   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:4423-33063).
7. SHALL contain exactly one [1..1] title (CONF:4423-31309).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31310).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31311).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31312) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31313).  
      Note: startTime of Relevant Period (When the device is inserted or first used) or QDM Attribute: Relevant dateTime (The time the device is applied if it was used at a single point in time.)
   2. MAY contain zero or one [0..1] high (CONF:4423-31314).  
      Note: stopTime of Relevant Period (When the device is removed or last used)
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-31485).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-33060).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33061).
11. SHALL contain exactly one [1..1] participation (CONF:4423-31315) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-31316).
    2. SHALL contain exactly one [1..1] role (CONF:4423-31317).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-31318).
       2. This role SHALL contain exactly one [1..1] playingDevice (CONF:4423-31319).
          1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" Device (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-31320).
          2. This playingDevice SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-31321).
          3. This playingDevice SHALL contain exactly one [1..1] code (CONF:4423-31322).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31323).
12. MAY contain zero or one [0..1] participation (CONF:4423-34503) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34506).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34504).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34507).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34505).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34508).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34509).
13. MAY contain zero or one [0..1] participation (CONF:4423-35061) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35067).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35062).
14. MAY contain zero or one [0..1] participation (CONF:4423-35065) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35069).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35066).
15. MAY contain zero or one [0..1] participation (CONF:4423-35816) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35817).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35819).
16. MAY contain zero or one [0..1] participation (CONF:4423-35063) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35068).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35064).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31330) 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:4423-31331).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31332).

Figure 16: Device, Applied (V3) Example

<procedureCriteria classCode="PROC" moodCode="EVN">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.13" extension="2019-05-01"/>

</templateId>

<id root="0dd19511-ce93-4490-9b9a-8cf3d967cf94"/>

<code code="360030002" codeSystem="2.16.840.1.113883.6.96">

<displayName value="Application of Device"/>

</code>

<title value="Device, Applied"/>

<statusCode code="completed"/>

<participation typeCode="DEV">

<role classCode="MANU">

<playingDevice classCode="DEV" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingDevice>

</role>

</participation>

</procedureCriteria>

Device, Order (V2)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01 (open)]

Table 37: Device, Order (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Device, Order.

Device represents an order for an instrument, apparatus, implement, machine, contrivance, implant, in-vitro reagent, or other similar or related article, including a component part or accessory, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.

Timing: The time the order is signed; author time

Table 38: Device, Order (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-29840](#C_4423-29840) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4423-29841](#C_4423-29841) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-31002](#C_4423-31002) |  |
| templateId | 1..1 | SHALL |  | [4423-29842](#C_4423-29842) |  |
| item | 1..1 | SHALL |  | [4423-29843](#C_4423-29843) |  |
| @root | 1..1 | SHALL |  | [4423-29844](#C_4423-29844) | 2.16.840.1.113883.10.20.28.4.15 |
| @extension | 1..1 | SHALL |  | [4423-33642](#C_4423-33642) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-29845](#C_4423-29845) |  |
| title | 1..1 | SHALL |  | [4423-29846](#C_4423-29846) |  |
| statusCode | 1..1 | SHALL |  | [4423-31003](#C_4423-31003) |  |
| @code | 1..1 | SHALL |  | [4423-31004](#C_4423-31004) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 1..1 | SHALL |  | [4423-29847](#C_4423-29847) |  |
| @typeCode | 1..1 | SHALL |  | [4423-29848](#C_4423-29848) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| role | 1..1 | SHALL |  | [4423-29849](#C_4423-29849) |  |
| @classCode | 1..1 | SHALL |  | [4423-29850](#C_4423-29850) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4423-29851](#C_4423-29851) |  |
| @classCode | 1..1 | SHALL |  | [4423-29852](#C_4423-29852) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = DEV |
| @determinerCode | 1..1 | SHALL |  | [4423-29853](#C_4423-29853) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-29854](#C_4423-29854) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-29855](#C_4423-29855) |  |
| participation | 0..1 | MAY |  | [4423-33475](#C_4423-33475) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33477](#C_4423-33477) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33476](#C_4423-33476) |  |
| low | 1..1 | SHALL |  | [4423-33478](#C_4423-33478) |  |
| role | 1..1 | SHALL |  | [4423-33569](#C_4423-33569) |  |
| @classCode | 1..1 | SHALL |  | [4423-33570](#C_4423-33570) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33571](#C_4423-33571) |  |
| participation | 0..1 | MAY |  | [4423-35070](#C_4423-35070) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35072](#C_4423-35072) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35071](#C_4423-35071) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35073](#C_4423-35073) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35077](#C_4423-35077) | PART |
| role | 1..1 | SHALL |  | [4423-35074](#C_4423-35074) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35820](#C_4423-35820) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35822](#C_4423-35822) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35821](#C_4423-35821) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35075](#C_4423-35075) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35078](#C_4423-35078) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35076](#C_4423-35076) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-29888](#C_4423-29888) |  |
| @typeCode | 1..1 | SHALL |  | [4423-29892](#C_4423-29892) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-29889](#C_4423-29889) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CONF:4423-29840).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-29841).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31002).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-29842).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-29843) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.15" (CONF:4423-29844).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33642).
5. SHALL contain exactly one [1..1] id (CONF:4423-29845).
6. SHALL contain exactly one [1..1] title (CONF:4423-29846).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-31003).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31004).
8. SHALL contain exactly one [1..1] participation (CONF:4423-29847) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-29848).
   2. SHALL contain exactly one [1..1] role (CONF:4423-29849).
      1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-29850).
      2. This role SHALL contain exactly one [1..1] playingDevice (CONF:4423-29851).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" Device (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-29852).
         2. This playingDevice SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-29853).
         3. This playingDevice SHALL contain exactly one [1..1] code (CONF:4423-29854).  
            Note: QDM Attribute: Code
            1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-29855).
9. MAY contain zero or one [0..1] participation (CONF:4423-33475) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33477).
   2. SHALL contain exactly one [1..1] time (CONF:4423-33476).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-33478).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4423-33569).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33570).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-33571).
10. MAY contain zero or one [0..1] participation (CONF:4423-35070) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35072).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35071).
11. MAY contain zero or one [0..1] participation (CONF:4423-35073) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35077).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35074).
12. MAY contain zero or one [0..1] participation (CONF:4423-35820) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35822).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35821).
13. MAY contain zero or one [0..1] participation (CONF:4423-35075) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35078).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35076).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-29888) 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:4423-29892).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-29889).

Figure 17: Device, Order (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.15" extension="2019-05-01"/>

</templateId>

<id root="5ab17ed3-166c-4265-9c61-d254e30c8e83"/>

<title value="Device, Order"/>

<statusCode code="active"/>

<participation typeCode="DEV">

<role classCode="MANU">

<playingDevice classCode="DEV" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingDevice>

</role>

</participation>

</supplyCriteria>

Device, Recommended (V2)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01 (open)]

Table 39: Device, Recommended (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Device, Recommended.

Device represents a recommendation for an instrument, apparatus, implement, machine, contrivance, implant, in-vitro reagent, or other similar or related article, including a component part or accessory, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.

Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 40: Device, Recommended (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31708](#C_4423-31708) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4423-31709](#C_4423-31709) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-31710](#C_4423-31710) |  |
| templateId | 1..1 | SHALL |  | [4423-31711](#C_4423-31711) |  |
| item | 1..1 | SHALL |  | [4423-31712](#C_4423-31712) |  |
| @root | 1..1 | SHALL |  | [4423-31713](#C_4423-31713) | 2.16.840.1.113883.10.20.28.4.16 |
| @extension | 1..1 | SHALL |  | [4423-33699](#C_4423-33699) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31714](#C_4423-31714) |  |
| title | 1..1 | SHALL |  | [4423-31715](#C_4423-31715) |  |
| statusCode | 1..1 | SHALL |  | [4423-31716](#C_4423-31716) |  |
| @code | 1..1 | SHALL |  | [4423-31717](#C_4423-31717) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 1..1 | SHALL |  | [4423-31721](#C_4423-31721) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31722](#C_4423-31722) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| role | 1..1 | SHALL |  | [4423-31723](#C_4423-31723) |  |
| @classCode | 1..1 | SHALL |  | [4423-31724](#C_4423-31724) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4423-31725](#C_4423-31725) |  |
| @classCode | 1..1 | SHALL |  | [4423-31726](#C_4423-31726) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = DEV |
| @determinerCode | 1..1 | SHALL |  | [4423-31727](#C_4423-31727) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-31728](#C_4423-31728) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31729](#C_4423-31729) |  |
| participation | 0..1 | MAY |  | [4423-34322](#C_4423-34322) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34325](#C_4423-34325) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34323](#C_4423-34323) |  |
| low | 1..1 | SHALL |  | [4423-34326](#C_4423-34326) |  |
| role | 1..1 | SHALL |  | [4423-34324](#C_4423-34324) |  |
| @classCode | 1..1 | SHALL |  | [4423-34327](#C_4423-34327) | ROL |
| id | 0..1 | MAY |  | [4423-34328](#C_4423-34328) |  |
| participation | 0..1 | MAY |  | [4423-35079](#C_4423-35079) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35085](#C_4423-35085) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35080](#C_4423-35080) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35083](#C_4423-35083) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35087](#C_4423-35087) | PART |
| role | 1..1 | SHALL |  | [4423-35084](#C_4423-35084) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35823](#C_4423-35823) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35825](#C_4423-35825) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PART |
| role | 1..1 | SHALL |  | [4423-35824](#C_4423-35824) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35081](#C_4423-35081) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35086](#C_4423-35086) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35082](#C_4423-35082) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31736](#C_4423-31736) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31737](#C_4423-31737) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31738](#C_4423-31738) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CONF:4423-31708).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31709).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31710).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31711).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31712) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.16" (CONF:4423-31713).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33699).
5. SHALL contain exactly one [1..1] id (CONF:4423-31714).
6. SHALL contain exactly one [1..1] title (CONF:4423-31715).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-31716).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31717).
8. SHALL contain exactly one [1..1] participation (CONF:4423-31721) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-31722).
   2. SHALL contain exactly one [1..1] role (CONF:4423-31723).
      1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-31724).
      2. This role SHALL contain exactly one [1..1] playingDevice (CONF:4423-31725).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" Device (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-31726).
         2. This playingDevice SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-31727).
         3. This playingDevice SHALL contain exactly one [1..1] code (CONF:4423-31728).  
            Note: QDM Attribute: Code
            1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31729).
9. MAY contain zero or one [0..1] participation (CONF:4423-34322) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34325).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34323).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34326).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored (i.e., provided to the patient))
   3. SHALL contain exactly one [1..1] role (CONF:4423-34324).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34327).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-34328).
10. MAY contain zero or one [0..1] participation (CONF:4423-35079) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35085).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35080).
11. MAY contain zero or one [0..1] participation (CONF:4423-35083) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35087).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35084).
12. MAY contain zero or one [0..1] participation (CONF:4423-35823) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35825).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35824).
13. MAY contain zero or one [0..1] participation (CONF:4423-35081) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35086).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35082).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31736) 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:4423-31737).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31738).

Figure 18: Device, Recommended (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.16" extension="2019-05-01"/>

</templateId>

<id root="5ab17ed3-166c-426d-9c61-d254e30c9e87"/>

<title value="Device, Recommended"/>

<statusCode code="active"/>

<participation typeCode="DEV">

<role classCode="MANU">

<playingDevice classCode="DEV" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingDevice>

</role>

</participation>

</supplyCriteria>

Diagnosis (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01 (open)]

Table 41: Diagnosis (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

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 QDM does not prescribe the source of diagnosis data in the EHR. Diagnoses may be found in a patient’s problem list, encounter diagnosis list, claims data, or other sources within the EHR. The preferred terminology for diagnoses is SNOMEDCT, but diagnoses may also be encoded using ICD9/10.

The Diagnosis datatype should not be used for differential diagnoses or rule out diagnoses (neither of which are currently supported by the QDM).

The onset datetime corresponds to the implicit start datetime of the datatype and the abatement datetime corresponds to the implicit stop datetime of the datatype. If the abatement datetime is null, then the diagnosis is considered to still be active. When this datatype is used with timing relationships, the criterion is looking for an active diagnosis for the time frame indicated by the timing relationships.  
Timing: The Prevalence Period references the time from the onset date to the abatement date.

Table 42: Diagnosis (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33768](#C_4423-33768) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-33769](#C_4423-33769) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34702](#C_4423-34702) |  |
| templateId | 1..1 | SHALL |  | [4423-33770](#C_4423-33770) |  |
| item | 1..1 | SHALL |  | [4423-33771](#C_4423-33771) |  |
| @root | 1..1 | SHALL |  | [4423-33776](#C_4423-33776) | 2.16.840.1.113883.10.20.28.4.110 |
| @extension | 1..1 | SHALL |  | [4423-34321](#C_4423-34321) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-33777](#C_4423-33777) |  |
| code | 1..1 | SHALL |  | [4423-33772](#C_4423-33772) |  |
| @code | 1..1 | SHALL |  | [4423-33778](#C_4423-33778) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 282291009 |
| @codeSystem | 1..1 | SHALL |  | [4423-33779](#C_4423-33779) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-33780](#C_4423-33780) |  |
| statusCode | 1..1 | SHALL |  | [4423-33773](#C_4423-33773) |  |
| @code | 1..1 | SHALL |  | [4423-33781](#C_4423-33781) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-33774](#C_4423-33774) |  |
| low | 0..1 | MAY |  | [4423-33782](#C_4423-33782) |  |
| high | 0..1 | MAY |  | [4423-33783](#C_4423-33783) |  |
| value | 1..1 | SHALL | CD | [4423-33775](#C_4423-33775) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33784](#C_4423-33784) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-33785](#C_4423-33785) |  |
| item | 1..1 | SHALL |  | [4423-33786](#C_4423-33786) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33788](#C_4423-33788) |  |
| participation | 0..1 | MAY |  | [4423-35106](#C_4423-35106) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35112](#C_4423-35112) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35107](#C_4423-35107) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35108](#C_4423-35108) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35113](#C_4423-35113) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35109](#C_4423-35109) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35826](#C_4423-35826) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35828](#C_4423-35828) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35827](#C_4423-35827) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35110](#C_4423-35110) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35114](#C_4423-35114) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35111](#C_4423-35111) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-33787](#C_4423-33787) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33789](#C_4423-33789) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-33790](#C_4423-33790) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01](#E_Severity_Observation_2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-33768).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-33769).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34702).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-33770).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-33771) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.110" (CONF:4423-33776).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34321).
5. SHALL contain exactly one [1..1] id (CONF:4423-33777).
6. SHALL contain exactly one [1..1] code (CONF:4423-33772).
   1. This code SHALL contain exactly one [1..1] @code="282291009" Diagnosis (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4423-33778).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (SNOMED CT) (CONF:4423-33779).
7. SHALL contain exactly one [1..1] title (CONF:4423-33780).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-33773).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-33781).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-33774) such that it  
   Note: QDM Attribute: Prevalence Period (The Prevalence Period references the time from the onset date to the abatement date)
   1. MAY contain zero or one [0..1] low (CONF:4423-33782).  
      Note: Onset dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-33783).  
      Note: Abatement dateTime
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-33775).
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33784).
11. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-33785).  
    Note: QDM attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-33786).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33788).
12. MAY contain zero or one [0..1] participation (CONF:4423-35106).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35112).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35107).
13. MAY contain zero or one [0..1] participation (CONF:4423-35108).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35113).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35109).
14. MAY contain zero or one [0..1] participation (CONF:4423-35826).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35828).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35827).
15. MAY contain zero or one [0..1] participation (CONF:4423-35110).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35114).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35111).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33787) 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:4423-33789).
    2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01) (CONF:4423-33790).

Figure 19: Diagnosis (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.110" extension="2019-05-01"/>

</templateId>

<id root="9e4e810d-3c3e-461e-86f8-6fe7a0b1ca2b"/>

<code code="282291009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Diagnosis"/>

</code>

<title value="Diagnosis"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Diagnostic Study, Order (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01 (open)]

Table 43: Diagnostic Study, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Diagnostic Study, Order.  
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. Diagnostic studies may make use of digital images and textual reports. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary-function testing, vascular laboratory testing, and others.  
Diagnostic Study, Order represents that a diagnostic study has been ordered.  
Timing: The time the order is signed; author time.

Table 44: Diagnostic Study, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34723](#C_4423-34723) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-30106](#C_4423-30106) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-30485](#C_4423-30485) |  |
| templateId | 1..1 | SHALL |  | [4423-30108](#C_4423-30108) |  |
| item | 1..1 | SHALL |  | [4423-30109](#C_4423-30109) |  |
| @root | 1..1 | SHALL |  | [4423-30117](#C_4423-30117) | 2.16.840.1.113883.10.20.28.4.22 |
| @extension | 1..1 | SHALL |  | [4423-33643](#C_4423-33643) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30110](#C_4423-30110) |  |
| code | 1..1 | SHALL |  | [4423-30111](#C_4423-30111) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30126](#C_4423-30126) |  |
| title | 1..1 | SHALL |  | [4423-35938](#C_4423-35938) |  |
| statusCode | 1..1 | SHALL |  | [4423-30232](#C_4423-30232) |  |
| @code | 1..1 | SHALL |  | [4423-30233](#C_4423-30233) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-33480](#C_4423-33480) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33482](#C_4423-33482) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33481](#C_4423-33481) |  |
| low | 1..1 | SHALL |  | [4423-33483](#C_4423-33483) |  |
| role | 1..1 | SHALL |  | [4423-33572](#C_4423-33572) |  |
| @classCode | 1..1 | SHALL |  | [4423-33573](#C_4423-33573) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 1..1 | SHALL |  | [4423-33574](#C_4423-33574) |  |
| participation | 0..1 | MAY |  | [4423-35088](#C_4423-35088) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35094](#C_4423-35094) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35089](#C_4423-35089) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35092](#C_4423-35092) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35096](#C_4423-35096) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35093](#C_4423-35093) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35829](#C_4423-35829) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35831](#C_4423-35831) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35830](#C_4423-35830) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35090](#C_4423-35090) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35095](#C_4423-35095) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35091](#C_4423-35091) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30124](#C_4423-30124) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30912](#C_4423-30912) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30125](#C_4423-30125) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34723).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4423-30106).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30485).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30108).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30109) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.22" (CONF:4423-30117).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33643).
5. SHALL contain exactly one [1..1] id (CONF:4423-30110).
6. SHALL contain exactly one [1..1] code (CONF:4423-30111).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30126).
7. SHALL contain exactly one [1..1] title (CONF:4423-35938).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30232).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30233).
9. MAY contain zero or one [0..1] participation (CONF:4423-33480) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33482).
   2. SHALL contain exactly one [1..1] time (CONF:4423-33481).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-33483).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4423-33572).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33573).
      2. This role SHALL contain exactly one [1..1] id (CONF:4423-33574).
10. MAY contain zero or one [0..1] participation (CONF:4423-35088) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35094).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35089).
11. MAY contain zero or one [0..1] participation (CONF:4423-35092) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35096).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35093).
12. MAY contain zero or one [0..1] participation (CONF:4423-35829) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35831).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35830).
13. MAY contain zero or one [0..1] participation (CONF:4423-35090) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35095).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35091).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30124) 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:4423-30912).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30125).

Figure 20: Diagnostic Study, Order (V4) Example

<observationCriteria classCode="OBS" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.22" extension="2019-05-01"/>

</templateId>

<id root="628e7169-c8eb-448e-9d74-a59dc02844e9" />

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Diagnostic Study, Order"/>

<statusCode code="active"/>

</observationCriteria>

Diagnostic Study, Performed (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01 (open)]

Table 45: Diagnostic Study, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Diagnostic Study, Performed.  
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. Diagnostic studies may make use of digital images and textual reports. 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 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. Diagnostic studies may make use of digital images and textual reports. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary-function testing, vascular laboratory testing, and others.  
Timing: The Relevant Period addresses: startTime – when the diagnostic study is initiated; stopTime – when the diagnostic study is completed.  
Relevant dateTime references the time the diagnostic study is performed if it occurs at a single point in time.  
Author dateTime references the time the diagnostic study was recorded and applies only when the record has no reference to the time the diagnostic study was performed and only the recorded time is available.  
Examples:  
• Initiation of a treadmill stress test to the time the treadmill stress test has completed  
• Initiation of the ultrasound study until completion of the ultrasound study  
QDM Attributes: Result and Result dateTime are represented using the Result (V2) template

Table 46: Diagnostic Study, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30775](#C_4423-30775) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-30776](#C_4423-30776) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-30777](#C_4423-30777) |  |
| templateId | 1..1 | SHALL |  | [4423-30778](#C_4423-30778) |  |
| item | 1..1 | SHALL |  | [4423-30779](#C_4423-30779) |  |
| @root | 1..1 | SHALL |  | [4423-30780](#C_4423-30780) | 2.16.840.1.113883.10.20.28.4.23 |
| @extension | 1..1 | SHALL |  | [4423-33605](#C_4423-33605) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30781](#C_4423-30781) |  |
| code | 1..1 | SHALL |  | [4423-30782](#C_4423-30782) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30783](#C_4423-30783) |  |
| title | 1..1 | SHALL |  | [4423-35939](#C_4423-35939) |  |
| statusCode | 1..1 | SHALL |  | [4423-30785](#C_4423-30785) |  |
| @code | 1..1 | SHALL |  | [4423-30786](#C_4423-30786) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-30787](#C_4423-30787) |  |
| low | 0..1 | MAY |  | [4423-30788](#C_4423-30788) |  |
| high | 0..1 | MAY |  | [4423-30789](#C_4423-30789) |  |
| value | 0..0 | SHALL NOT |  | [4423-34764](#C_4423-34764) |  |
| methodCode | 0..1 | MAY |  | [4423-30790](#C_4423-30790) |  |
| item | 0..1 | SHOULD |  | [4423-30791](#C_4423-30791) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30917](#C_4423-30917) |  |
| participation | 0..1 | MAY |  | [4423-30792](#C_4423-30792) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30993](#C_4423-30993) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4423-30992](#C_4423-30992) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..1 | MAY |  | [4423-34510](#C_4423-34510) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34513](#C_4423-34513) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34511](#C_4423-34511) |  |
| low | 1..1 | SHALL |  | [4423-34514](#C_4423-34514) |  |
| role | 1..1 | SHALL |  | [4423-34512](#C_4423-34512) |  |
| @classCode | 1..1 | SHALL |  | [4423-34515](#C_4423-34515) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34516](#C_4423-34516) |  |
| participation | 0..1 | MAY |  | [4423-35103](#C_4423-35103) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35105](#C_4423-35105) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35104](#C_4423-35104) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35097](#C_4423-35097) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35101](#C_4423-35101) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35098](#C_4423-35098) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35832](#C_4423-35832) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35834](#C_4423-35834) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35833](#C_4423-35833) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35099](#C_4423-35099) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35102](#C_4423-35102) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35100](#C_4423-35100) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30799](#C_4423-30799) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30921](#C_4423-30921) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30800](#C_4423-30800) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34763](#C_4423-34763) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34765](#C_4423-34765) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4423-34766](#C_4423-34766) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-33365](#C_4423-33365) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34614](#C_4423-34614) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-33366](#C_4423-33366) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..\* | MAY |  | [4423-34611](#C_4423-34611) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34612](#C_4423-34612) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34613](#C_4423-34613) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-30775).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4423-30776).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30777).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30778).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30779) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.23" (CONF:4423-30780).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33605).
5. SHALL contain exactly one [1..1] id (CONF:4423-30781).
6. SHALL contain exactly one [1..1] code (CONF:4423-30782).
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30783).
7. SHALL contain exactly one [1..1] title (CONF:4423-35939).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30785).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30786).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-30787) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-30788).  
      Note: startTime of Relevant Period (When the diagnostic study is initiated) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-30789).  
      Note: stopTime of Relevant Period (When the diagnostic study is completed)
10. SHALL NOT contain [0..0] value (CONF:4423-34764).  
    Note: Use the Result (V2) template to represent Result
11. MAY contain zero or one [0..1] methodCode (CONF:4423-30790).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHOULD contain zero or one [0..1] item (CONF:4423-30791).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30917).
12. MAY contain zero or one [0..1] participation (CONF:4423-30792) such that it  
    Note: QDM Attribute: Facility Location
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30993).
    2. SHALL contain exactly one [1..1] [Facility Location](#E_Facility_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) (CONF:4423-30992).
13. MAY contain zero or one [0..1] participation (CONF:4423-34510) such that it  
    Note: QDM Attribute: Facility Location
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34513).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34511).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34514).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4423-34512).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34515).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34516).
14. MAY contain zero or one [0..1] participation (CONF:4423-35103) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35105).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35104).
15. MAY contain zero or one [0..1] participation (CONF:4423-35097) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35101).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35098).
16. MAY contain zero or one [0..1] participation (CONF:4423-35832) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35834).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35833).
17. MAY contain zero or one [0..1] participation (CONF:4423-35099) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35102).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35100).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30799) 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:4423-30921).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30800).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34763) such that it  
    Note: QDM Attribute: Result, QDM Attribute: Result dateTime
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" has value (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34765).
    2. SHALL contain exactly one [1..1] [Result (V2)](#E_Result_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) (CONF:4423-34766).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33365) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34614).
    2. SHALL contain exactly one [1..1] [Status (V2)](#E_Status_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01) (CONF:4423-33366).
21. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34611) such that it  
    Note: QDM Attribute: Component
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34612).
    2. SHALL contain exactly one [1..1] [Component](#E_Component_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01) (CONF:4423-34613).

Figure 21: Diagnostic Study, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.23" extension="2019-05-01"/>

</templateId>

<id root="f584ead4-808b-43c2-93e3-b8606e156233"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Diagnostic Study, Performed"/>

<statusCode code="completed"/>

</observationCriteria>

Diagnostic Study, Recommended (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01 (open)]

Table 47: Diagnostic Study, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Diagnostic Study, Recommended.  
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. Diagnostic studies may make use of digital images and textual reports. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary-function testing, vascular laboratory testing, and others.  
Timing: The time the order is signed; author time.  
All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 48: Diagnostic Study, Recommended (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30572](#C_4423-30572) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-30573](#C_4423-30573) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-30574](#C_4423-30574) |  |
| templateId | 1..1 | SHALL |  | [4423-30575](#C_4423-30575) |  |
| item | 1..1 | SHALL |  | [4423-30576](#C_4423-30576) |  |
| @root | 1..1 | SHALL |  | [4423-30577](#C_4423-30577) | 2.16.840.1.113883.10.20.28.4.24 |
| @extension | 1..1 | SHALL |  | [4423-33751](#C_4423-33751) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30578](#C_4423-30578) |  |
| code | 1..1 | SHALL |  | [4423-30579](#C_4423-30579) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30580](#C_4423-30580) |  |
| title | 1..1 | SHALL |  | [4423-30581](#C_4423-30581) |  |
| statusCode | 1..1 | SHALL |  | [4423-30582](#C_4423-30582) |  |
| @code | 1..1 | SHALL |  | [4423-30583](#C_4423-30583) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-34329](#C_4423-34329) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34331](#C_4423-34331) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34330](#C_4423-34330) |  |
| low | 1..1 | SHALL |  | [4423-34332](#C_4423-34332) |  |
| role | 1..1 | SHALL |  | [4423-34333](#C_4423-34333) |  |
| @classCode | 1..1 | SHALL |  | [4423-34334](#C_4423-34334) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34335](#C_4423-34335) |  |
| participation | 0..1 | MAY |  | [4423-35115](#C_4423-35115) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35121](#C_4423-35121) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35116](#C_4423-35116) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35119](#C_4423-35119) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35123](#C_4423-35123) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35120](#C_4423-35120) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35835](#C_4423-35835) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35837](#C_4423-35837) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35836](#C_4423-35836) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35117](#C_4423-35117) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35122](#C_4423-35122) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35118](#C_4423-35118) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-30572).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4423-30573).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30574).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30575).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30576) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.24" (CONF:4423-30577).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33751).
5. SHALL contain exactly one [1..1] id (CONF:4423-30578).
6. SHALL contain exactly one [1..1] code (CONF:4423-30579).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30580).
7. SHALL contain exactly one [1..1] title (CONF:4423-30581).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30582).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30583).
9. MAY contain zero or one [0..1] participation (CONF:4423-34329) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34331).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34330).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34332).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
   3. SHALL contain exactly one [1..1] role (CONF:4423-34333).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34334).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-34335).
10. MAY contain zero or one [0..1] participation (CONF:4423-35115) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35121).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35116).
11. MAY contain zero or one [0..1] participation (CONF:4423-35119) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35123).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35120).
12. MAY contain zero or one [0..1] participation (CONF:4423-35835) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35837).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35836).
13. MAY contain zero or one [0..1] participation (CONF:4423-35117) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35122).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35118).

Figure 22: Diagnostic Study, Recommended (V4) Example

<observationCriteria classCode="OBS" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.24" extension="2019-05-01"/>

</templateId>

<id root="f584ead4-808b-43c2-93e3-b8606e156233"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Diagnostic Study, Recommended"/>

<statusCode code="active"/>

</observationCriteria>

Dosage

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01 (open)]

Table 49: Dosage Contexts

| Contained By: | Contains: |
| --- | --- |
| [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional) |  |

This template represents the QDM attribute: Dosage.

Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.

Table 50: Dosage Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-34423](#C_3335-34423) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-34424](#C_3335-34424) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3335-34420](#C_3335-34420) |  |
| item | 1..1 | SHALL |  | [3335-34421](#C_3335-34421) |  |
| @root | 1..1 | SHALL |  | [3335-34425](#C_3335-34425) | 2.16.840.1.113883.10.20.28.4.125 |
| @extension | 1..1 | SHALL |  | [3335-34650](#C_3335-34650) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-34422](#C_3335-34422) |  |
| @code | 1..1 | SHALL |  | [3335-34427](#C_3335-34427) | 260911001 |
| @codeSystem | 1..1 | SHALL |  | [3335-34428](#C_3335-34428) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| value | 1..1 | SHALL | PQ | [3335-34430](#C_3335-34430) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-34423).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-34424).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-34420).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-34421) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.125" (CONF:3335-34425).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34650).
4. SHALL contain exactly one [1..1] code (CONF:3335-34422).
   1. This code SHALL contain exactly one [1..1] @code="260911001" Dosage (CONF:3335-34427).
   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:3335-34428).
5. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:3335-34430).

Figure 23: Dosage Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.125" extension="2017-05-01"/>

</templateId>

<id root="a77fb848-5778-4948-a3df-cf9ae40997c4"/>

<code code="260911001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Dosage"/>

</code>

<title value="Dosage"/>

<value xsi:type="PQ" value="200" unit="mg"/>

</observationCriteria>

Encounter Diagnosis

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01 (open)]

Table 51: Encounter Diagnosis Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional) | [Present On Admission Indicator](#E_Present_On_Admission_Indicator) (optional)  [Rank](#E_Rank) (optional) |

This template is to represent Diagnoses attribute. Coded diagnoses/problems addressed during the encounter.

Table 52: Encounter Diagnosis Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-35753](#C_4423-35753) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-35754](#C_4423-35754) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4423-35742](#C_4423-35742) |  |
| item | 1..1 | SHALL |  | [4423-35743](#C_4423-35743) |  |
| @root | 1..1 | SHALL |  | [4423-35747](#C_4423-35747) | 2.16.840.1.113883.10.20.28.4.138 |
| @extension | 1..1 | SHALL |  | [4423-35748](#C_4423-35748) | 2019-05-01 |
| code | 1..1 | SHALL |  | [4423-35744](#C_4423-35744) |  |
| @code | 1..1 | SHALL |  | [4423-35749](#C_4423-35749) | 29308-4 |
| @codeSystem | 1..1 | SHALL |  | [4423-35750](#C_4423-35750) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 0..1 | MAY | CD | [4423-35755](#C_4423-35755) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35758](#C_4423-35758) |  |
| outboundRelationship | 0..1 | MAY |  | [4423-35756](#C_4423-35756) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35759](#C_4423-35759) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35757](#C_4423-35757) | [Present On Admission Indicator (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01](#E_Present_On_Admission_Indicator) |
| outboundRelationship | 0..1 | MAY |  | [4423-35761](#C_4423-35761) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35763](#C_4423-35763) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35762](#C_4423-35762) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-35753).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-35754).
3. SHALL contain exactly one [1..1] templateId (CONF:4423-35742) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4423-35743).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.138" (CONF:4423-35747).
      2. This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35748).
4. SHALL contain exactly one [1..1] code (CONF:4423-35744).
   1. This code SHALL contain exactly one [1..1] @code="29308-4" Diagnosis (CONF:4423-35749).
   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:4423-35750).
5. MAY contain zero or one [0..1] value with @xsi:type="CD" (CONF:4423-35755).  
   Note: Diagnosis
   1. The value, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35758).
6. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35756).  
   Note: PresentOnAdmissionIndicator
   1. The outboundRelationship, if present, SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35759).
   2. The outboundRelationship, if present, SHALL contain exactly one [1..1] [Present On Admission Indicator](#E_Present_On_Admission_Indicator) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01) (CONF:4423-35757).
7. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35761).  
   Note: Rank
   1. The outboundRelationship, if present, SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35763).
   2. The outboundRelationship, if present, SHALL contain exactly one [1..1] [Rank](#E_Rank) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01) (CONF:4423-35762).

Figure 24: Encounter Diagnosis Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.138" extension="2019-05-01"/>

</templateId>

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

<displayName value="Diagnosis"/>

</code>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Encounter, Order (V2)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01 (open)]

Table 53: Encounter, Order (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Encounter, Order.  
This template describes an order for an encounter. It describes the ordered interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.

Timing: The time the order is signed; author time.

Table 54: Encounter, Order (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30860](#C_4423-30860) | ENC |
| @moodCode | 1..1 | SHALL |  | [4423-30861](#C_4423-30861) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-30862](#C_4423-30862) |  |
| templateId | 1..1 | SHALL |  | [4423-30863](#C_4423-30863) |  |
| item | 1..1 | SHALL |  | [4423-30864](#C_4423-30864) |  |
| @root | 1..1 | SHALL |  | [4423-30865](#C_4423-30865) | 2.16.840.1.113883.10.20.28.4.27 |
| @extension | 1..1 | SHALL |  | [4423-33645](#C_4423-33645) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30866](#C_4423-30866) |  |
| code | 1..1 | SHALL |  | [4423-30867](#C_4423-30867) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30868](#C_4423-30868) |  |
| title | 1..1 | SHALL |  | [4423-35940](#C_4423-35940) |  |
| statusCode | 1..1 | SHALL |  | [4423-30870](#C_4423-30870) |  |
| @code | 1..1 | SHALL |  | [4423-30871](#C_4423-30871) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| priorityCode | 0..1 | MAY |  | [4423-35133](#C_4423-35133) |  |
| item | 1..1 | SHALL |  | [4423-35134](#C_4423-35134) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35135](#C_4423-35135) |  |
| participation | 0..1 | MAY |  | [4423-30875](#C_4423-30875) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30876](#C_4423-30876) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4423-30877](#C_4423-30877) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..1 | MAY |  | [4423-33485](#C_4423-33485) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33487](#C_4423-33487) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33486](#C_4423-33486) |  |
| low | 1..1 | SHALL |  | [4423-33488](#C_4423-33488) |  |
| role | 1..1 | SHALL |  | [4423-33575](#C_4423-33575) |  |
| @classCode | 1..1 | SHALL |  | [4423-33576](#C_4423-33576) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33577](#C_4423-33577) |  |
| participation | 0..1 | MAY |  | [4423-35124](#C_4423-35124) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35128](#C_4423-35128) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35125](#C_4423-35125) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35126](#C_4423-35126) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35129](#C_4423-35129) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35127](#C_4423-35127) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35838](#C_4423-35838) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35840](#C_4423-35840) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35839](#C_4423-35839) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35130](#C_4423-35130) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35132](#C_4423-35132) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35131](#C_4423-35131) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30878](#C_4423-30878) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30879](#C_4423-30879) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30880](#C_4423-30880) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CONF:4423-30860).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30861).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30862).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30863).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30864) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.27" (CONF:4423-30865).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33645).
5. SHALL contain exactly one [1..1] id (CONF:4423-30866).
6. SHALL contain exactly one [1..1] code (CONF:4423-30867).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30868).
7. SHALL contain exactly one [1..1] title (CONF:4423-35940).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30870).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30871).
9. MAY contain zero or one [0..1] priorityCode (CONF:4423-35133).  
   Note: QDM Attribute: Priority
   1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35134).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35135).
10. MAY contain zero or one [0..1] participation (CONF:4423-30875) such that it  
    Note: QDM Attribute: Facility Location
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30876).
    2. SHALL contain exactly one [1..1] [Facility Location](#E_Facility_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) (CONF:4423-30877).
11. MAY contain zero or one [0..1] participation (CONF:4423-33485) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33487).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33486).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33488).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4423-33575).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33576).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-33577).
12. MAY contain zero or one [0..1] participation (CONF:4423-35124) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35128).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35125).
13. MAY contain zero or one [0..1] participation (CONF:4423-35126) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35129).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35127).
14. MAY contain zero or one [0..1] participation (CONF:4423-35838) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35840).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35839).
15. MAY contain zero or one [0..1] participation (CONF:4423-35130) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35132).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35131).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30878) 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:4423-30879).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30880).

Figure 25: Encounter, Order (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.27" extension="2019-05-01"/>

</templateId>

<id root="c4cb3abb-1e2e-4b3a-97c1-de1685b7da02"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Encounter, Order"/>

<statusCode code="active"/>

</encounterCriteria>

Encounter, Performed (V3)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01 (open)]

Table 55: Encounter, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Admission Source](#E_Admission_Source_1) (optional)  [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Encounter Diagnosis](#E_Encounter_Diagnosis_) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Encounter, Performed.  
An encounter is an identifiable grouping of healthcare-related activities characterized by the entity relationship between the subject of care and a healthcare provider; such grouping is determined by the healthcare provider. A patient encounter represents interaction between a healthcare provider and a patient with a face-to-face patient visit to a clinician‘s office, or any electronically remote interaction with a clinician for any form of diagnostic treatment or therapeutic event.  
This template represents an encounter that is completed.

Timing: The Relevant Period addresses: startTime – The time the encounter began (admission time); stopTime – The time the encounter ended (discharge time).

Table 56: Encounter, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31005](#C_4423-31005) | ENC |
| @moodCode | 1..1 | SHALL |  | [4423-31006](#C_4423-31006) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-31007](#C_4423-31007) |  |
| templateId | 1..1 | SHALL |  | [4423-31008](#C_4423-31008) |  |
| item | 1..1 | SHALL |  | [4423-31009](#C_4423-31009) |  |
| @root | 1..1 | SHALL |  | [4423-31010](#C_4423-31010) | 2.16.840.1.113883.10.20.28.4.5 |
| @extension | 1..1 | SHALL |  | [4423-33397](#C_4423-33397) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31011](#C_4423-31011) |  |
| code | 1..1 | SHALL |  | [4423-31012](#C_4423-31012) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31013](#C_4423-31013) |  |
| title | 1..1 | SHALL |  | [4423-35941](#C_4423-35941) |  |
| statusCode | 1..1 | SHALL |  | [4423-31015](#C_4423-31015) |  |
| @code | 1..1 | SHALL |  | [4423-31016](#C_4423-31016) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31017](#C_4423-31017) |  |
| low | 0..1 | MAY |  | [4423-31018](#C_4423-31018) |  |
| high | 0..1 | MAY |  | [4423-31019](#C_4423-31019) |  |
| priorityCode | 0..1 | MAY |  | [4423-35141](#C_4423-35141) |  |
| item | 1..1 | SHALL |  | [4423-35142](#C_4423-35142) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35149](#C_4423-35149) |  |
| lengthOfStayQuantity | 0..1 | MAY |  | [4423-31033](#C_4423-31033) |  |
| dischargeDispositionCode | 0..1 | MAY |  | [4423-31034](#C_4423-31034) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33105](#C_4423-33105) |  |
| participation | 0..\* | MAY |  | [4423-31021](#C_4423-31021) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31022](#C_4423-31022) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4423-31023](#C_4423-31023) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..1 | MAY |  | [4423-34371](#C_4423-34371) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34372](#C_4423-34372) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4423-34373](#C_4423-34373) | [Admission Source (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01](#E_Admission_Source_1) |
| participation | 0..1 | MAY |  | [4423-35136](#C_4423-35136) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34659](#C_4423-34659) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-35137](#C_4423-35137) |  |
| low | 1..1 | SHALL |  | [4423-35138](#C_4423-35138) |  |
| role | 1..1 | SHALL |  | [4423-34658](#C_4423-34658) |  |
| @classCode | 1..1 | SHALL |  | [4423-35139](#C_4423-35139) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-35140](#C_4423-35140) |  |
| participation | 0..1 | MAY |  | [4423-35143](#C_4423-35143) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35150](#C_4423-35150) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35144](#C_4423-35144) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35147](#C_4423-35147) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35152](#C_4423-35152) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35148](#C_4423-35148) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35841](#C_4423-35841) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35843](#C_4423-35843) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35842](#C_4423-35842) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35145](#C_4423-35145) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35151](#C_4423-35151) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35146](#C_4423-35146) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31024](#C_4423-31024) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31025](#C_4423-31025) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31026](#C_4423-31026) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..\* | MAY |  | [4423-34041](#C_4423-34041) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34045](#C_4423-34045) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35760](#C_4423-35760) | [Encounter Diagnosis (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01](#E_Encounter_Diagnosis_) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CONF:4423-31005).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31006).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31007).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31008).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31009) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.5" (CONF:4423-31010).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33397).
5. SHALL contain exactly one [1..1] id (CONF:4423-31011).
6. SHALL contain exactly one [1..1] code (CONF:4423-31012).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31013).
7. SHALL contain exactly one [1..1] title (CONF:4423-35941).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31015).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31016).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31017) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31018).  
      Note: startTime – The time the encounter began (admission time)
   2. MAY contain zero or one [0..1] high (CONF:4423-31019).  
      Note: stopTime – The time the encounter ended (discharge time)
10. MAY contain zero or one [0..1] priorityCode (CONF:4423-35141).  
    Note: QDM Attribute: Priority
    1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35142).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35149).
11. MAY contain zero or one [0..1] lengthOfStayQuantity (CONF:4423-31033).  
    Note: QDM Attribute: Length of Stay
12. MAY contain zero or one [0..1] dischargeDispositionCode (CONF:4423-31034).  
    Note: QDM Attribute: Discharge Disposition
    1. The dischargeDispositionCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33105).
13. MAY contain zero or more [0..\*] participation (CONF:4423-31021) such that it  
    Note: QDM Attribute: Facility Locations
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-31022).
    2. SHALL contain exactly one [1..1] [Facility Location](#E_Facility_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) (CONF:4423-31023).
14. MAY contain zero or one [0..1] participation (CONF:4423-34371) such that it  
    Note: QDM Attribute: Admission Source
    1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-34372).
    2. SHALL contain exactly one [1..1] [Admission Source](#E_Admission_Source_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01) (CONF:4423-34373).
15. MAY contain zero or one [0..1] participation (CONF:4423-35136) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34659).
    2. SHALL contain exactly one [1..1] time (CONF:4423-35137).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-35138).  
          Note: QDM Attribute: Author dateTime (The Author dateTime addresses when an Encounter is documented. Documentation can occur at the beginning, during, at the end or subsequent to the end of an Encounter. The Author dateTime should be used only if the Relevant Period cannot be obtained)
    3. SHALL contain exactly one [1..1] role (CONF:4423-34658).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35139).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-35140).
16. MAY contain zero or one [0..1] participation (CONF:4423-35143) such that it  
    Note: QDM Attribute: Participant
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35150).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35144).
17. MAY contain zero or one [0..1] participation (CONF:4423-35147) such that it  
    Note: QDM Attribute: Participant
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35152).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35148).
18. MAY contain zero or one [0..1] participation (CONF:4423-35841) such that it  
    Note: QDM Attribute: Participant
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35843).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35842).
19. MAY contain zero or one [0..1] participation (CONF:4423-35145) such that it  
    Note: QDM Attribute: Participant
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35151).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35146).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31024) 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:4423-31025).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31026).
21. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34041) such that it  
    Note: QDM Attribute: Diagnoses
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4423-34045).
    2. SHALL contain exactly one [1..1] [Encounter Diagnosis](#E_Encounter_Diagnosis_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01) (CONF:4423-35760).

Figure 26: Encounter, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.5" extension="2019-05-01"/>

</templateId>

<id root="d7fbe089-ff04-4f58-b604-cb6d5ebce4cc"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Encounter, Performed"/>

<statusCode code="completed"/>

<outboundRelationship typeCode="REFR">

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.138" extension="2019-05-01"/>

</templateId>

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

<displayName value="Diagnosis"/>

</code>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

</outboundRelationship>

</encounterCriteria>

Encounter, Recommended (V2)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01 (open)]

Table 57: Encounter, Recommended (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Encounter, Recommended.  
This template describes a recommendation for an encounter. It describes the recommended interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.  
Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 58: Encounter, Recommended (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30854](#C_4423-30854) | ENC |
| @moodCode | 1..1 | SHALL |  | [4423-30518](#C_4423-30518) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-30855](#C_4423-30855) |  |
| templateId | 1..1 | SHALL |  | [4423-30519](#C_4423-30519) |  |
| item | 1..1 | SHALL |  | [4423-30520](#C_4423-30520) |  |
| @root | 1..1 | SHALL |  | [4423-30521](#C_4423-30521) | 2.16.840.1.113883.10.20.28.4.28 |
| @extension | 1..1 | SHALL |  | [4423-33694](#C_4423-33694) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30522](#C_4423-30522) |  |
| code | 1..1 | SHALL |  | [4423-30523](#C_4423-30523) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30856](#C_4423-30856) |  |
| title | 1..1 | SHALL |  | [4423-35942](#C_4423-35942) |  |
| statusCode | 1..1 | SHALL |  | [4423-30857](#C_4423-30857) |  |
| @code | 0..1 | SHALL |  | [4423-30858](#C_4423-30858) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-30532](#C_4423-30532) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30859](#C_4423-30859) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4423-30533](#C_4423-30533) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..1 | MAY |  | [4423-34377](#C_4423-34377) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34380](#C_4423-34380) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34378](#C_4423-34378) |  |
| low | 1..1 | SHALL |  | [4423-34381](#C_4423-34381) |  |
| role | 1..1 | SHALL |  | [4423-34379](#C_4423-34379) |  |
| @classCode | 1..1 | SHALL |  | [4423-35160](#C_4423-35160) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34382](#C_4423-34382) |  |
| participation | 0..1 | MAY |  | [4423-35161](#C_4423-35161) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35167](#C_4423-35167) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35162](#C_4423-35162) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35165](#C_4423-35165) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35169](#C_4423-35169) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35166](#C_4423-35166) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35844](#C_4423-35844) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35846](#C_4423-35846) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35845](#C_4423-35845) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35163](#C_4423-35163) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35168](#C_4423-35168) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35164](#C_4423-35164) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30534](#C_4423-30534) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30535](#C_4423-30535) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30536](#C_4423-30536) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CONF:4423-30854).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30518).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30855).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30519).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30520) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.28" (CONF:4423-30521).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33694).
5. SHALL contain exactly one [1..1] id (CONF:4423-30522).
6. SHALL contain exactly one [1..1] code (CONF:4423-30523).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30856).
7. SHALL contain exactly one [1..1] title (CONF:4423-35942).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30857).
   1. This statusCode SHALL contain zero or one [0..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30858).
9. MAY contain zero or one [0..1] participation (CONF:4423-30532) such that it  
   Note: QDM Attribute: Facility Location
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-30859).
   2. SHALL contain exactly one [1..1] [Facility Location](#E_Facility_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) (CONF:4423-30533).
10. MAY contain zero or one [0..1] participation (CONF:4423-34377) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34380).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34378).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34381).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4423-34379).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35160).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34382).
11. MAY contain zero or one [0..1] participation (CONF:4423-35161) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35167).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35162).
12. MAY contain zero or one [0..1] participation (CONF:4423-35165) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35169).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35166).
13. MAY contain zero or one [0..1] participation (CONF:4423-35844) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35846).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35845).
14. MAY contain zero or one [0..1] participation (CONF:4423-35163) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35168).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35164).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30534) 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:4423-30535).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30536).

Figure 27: Encounter, Recommended (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.28" extension="2019-05-01"/>

</templateId>

<id root="0c2f3978-f615-4138-af4f-59ef78b46c62"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Encounter, Recommended"/>

<statusCode code="active"/>

</encounterCriteria>

Entity - Care Partner

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 (open)]

Table 59: Entity - Care Partner Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Family History (V2)](#E_Family_History_V2) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Active (V4)](#E_Medication_Active_V4_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (optional)  [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Substance, Administered (V4)](#E_Substance_Administered_V4) (optional)  [Program Participation (V3)](#E_Program_Participation_V3) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional) |  |

This template represents Entity that is care partner - a person that is related to a patient, but who is not the direct target of care.

Table 60: Entity - Care Partner Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-35784](#C_4423-35784) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PRS |
| templateId | 1..1 | SHALL |  | [4423-35773](#C_4423-35773) |  |
| item | 1..1 | SHALL |  | [4423-35774](#C_4423-35774) |  |
| @root | 1..1 | SHALL |  | [4423-35782](#C_4423-35782) | 2.16.840.1.113883.10.20.28.4.134 |
| @extension | 1..1 | SHALL |  | [4423-35783](#C_4423-35783) | 2019-05-01 |
| id | 0..1 | MAY |  | [4423-35778](#C_4423-35778) |  |
| item | 0..1 | MAY |  | [4423-35779](#C_4423-35779) |  |
| @root | 1..1 | SHALL |  | [4423-35787](#C_4423-35787) |  |
| @extension | 1..1 | SHALL |  | [4423-35788](#C_4423-35788) |  |
| playingEntity | 0..1 | MAY |  | [4423-35780](#C_4423-35780) |  |
| roleScoped | 0..1 | MAY |  | [4423-35789](#C_4423-35789) |  |
| code | 1..1 | SHALL |  | [4423-35791](#C_4423-35791) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35792](#C_4423-35792) |  |

1. SHALL contain exactly one [1..1] @classCode="PRS" personal relationship (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35784).
2. SHALL contain exactly one [1..1] templateId (CONF:4423-35773).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-35774) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.134" (CONF:4423-35782).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35783).
3. MAY contain zero or one [0..1] id (CONF:4423-35778).  
   Note: id
   1. The id, if present, MAY contain zero or one [0..1] item (CONF:4423-35779).
      1. The item, if present, SHALL contain exactly one [1..1] @root (CONF:4423-35787).
      2. The item, if present, SHALL contain exactly one [1..1] @extension (CONF:4423-35788).
4. MAY contain zero or one [0..1] playingEntity (CONF:4423-35780).  
   Note: Relationship
   1. The playingEntity, if present, MAY contain zero or one [0..1] roleScoped (CONF:4423-35789).
      1. The roleScoped, if present, SHALL contain exactly one [1..1] code (CONF:4423-35791).
         1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35792).

Figure 28: Entity - Care Partner Example

<role classCode="PRS">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.134" extension="2019-05-01"/>

</templateId>

<playingEntity>

...

</playingEntity>

</role>

Entity – Organization

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 (open)]

Table 61: Entity - Organization Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Family History (V2)](#E_Family_History_V2) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Active (V4)](#E_Medication_Active_V4_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (optional)  [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Substance, Administered (V4)](#E_Substance_Administered_V4) (optional)  [Program Participation (V3)](#E_Program_Participation_V3) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional) |  |

This template represents Entity that is organization - a grouping of people or organizations with a common purpose.

Table 62: Entity - Organization Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34935](#C_4423-34935) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PROV |
| templateId | 1..1 | SHALL |  | [4423-34929](#C_4423-34929) |  |
| item | 1..1 | SHALL |  | [4423-34930](#C_4423-34930) |  |
| @root | 1..1 | SHALL |  | [4423-34932](#C_4423-34932) | 2.16.840.1.113883.10.20.28.4.135 |
| @extension | 1..1 | SHALL |  | [4423-34933](#C_4423-34933) | 2019-05-01 |
| scopingOrganization | 1..1 | SHALL |  | [4423-34936](#C_4423-34936) |  |
| id | 0..1 | MAY |  | [4423-34937](#C_4423-34937) |  |
| item | 1..1 | SHALL |  | [4423-34938](#C_4423-34938) |  |
| @root | 1..1 | SHALL |  | [4423-34954](#C_4423-34954) |  |
| @extension | 1..1 | SHALL |  | [4423-34955](#C_4423-34955) |  |
| code | 0..1 | MAY |  | [4423-34939](#C_4423-34939) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35793](#C_4423-35793) |  |

1. SHALL contain exactly one [1..1] @classCode="PROV" healthcare provider (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34935).
2. SHALL contain exactly one [1..1] templateId (CONF:4423-34929).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34930) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.135" (CONF:4423-34932).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34933).
3. SHALL contain exactly one [1..1] scopingOrganization (CONF:4423-34936).
   1. This scopingOrganization MAY contain zero or one [0..1] id (CONF:4423-34937).  
      Note: id
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4423-34938).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4423-34954).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4423-34955).
   2. This scopingOrganization MAY contain zero or one [0..1] code (CONF:4423-34939).  
      Note: Attribute: type - kind of organization (e.g., hospital)
      1. The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35793).

Figure 29: Entity - Organization Example

<role classCode="PROV">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.135" extension="2019-05-01"/>

</templateId>

<scopingOrganization>

<code valueSet="{$QDMElementValueSetOID}"/>

</scopingOrganization>

</role>

Entity – Patient

[patient: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 (open)]

Table 63: Entity - Patient Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Family History (V2)](#E_Family_History_V2) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Active (V4)](#E_Medication_Active_V4_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (optional)  [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Substance, Administered (V4)](#E_Substance_Administered_V4) (optional)  [Program Participation (V3)](#E_Program_Participation_V3) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional) |  |

This template represents Entity that is patient – information about an individual receiving health care services

Table 64: Entity - Patient Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34950](#C_4423-34950) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PAT |
| templateId | 1..1 | SHALL |  | [4423-34943](#C_4423-34943) |  |
| item | 1..1 | SHALL |  | [4423-34944](#C_4423-34944) |  |
| @root | 1..1 | SHALL |  | [4423-34947](#C_4423-34947) | 2.16.840.1.113883.10.20.28.4.94 |
| @extension | 1..1 | SHALL |  | [4423-34948](#C_4423-34948) | 2019-05-01 |
| id | 0..1 | MAY |  | [4423-34949](#C_4423-34949) |  |
| item | 1..1 | SHALL |  | [4423-34951](#C_4423-34951) |  |
| @root | 1..1 | SHALL |  | [4423-34952](#C_4423-34952) |  |
| @extension | 0..1 | MAY |  | [4423-34953](#C_4423-34953) |  |

1. SHALL contain exactly one [1..1] @classCode="PAT" patient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34950).
2. SHALL contain exactly one [1..1] templateId (CONF:4423-34943).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34944) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.94" (CONF:4423-34947).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34948).
3. MAY contain zero or one [0..1] id (CONF:4423-34949).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4423-34951).
      1. This item SHALL contain exactly one [1..1] @root (CONF:4423-34952).
      2. This item MAY contain zero or one [0..1] @extension (CONF:4423-34953).

Figure 30: Entity - Patient Example

<patient classCode="PAT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.136" extension="2019-05-01"/>

</templateId>

<id>

...

</id>

</patient>

Entity – Practitioner

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 (open)]

Table 65: Entity - Practitioner Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Family History (V2)](#E_Family_History_V2) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Active (V4)](#E_Medication_Active_V4_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) (optional)  [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Substance, Administered (V4)](#E_Substance_Administered_V4) (optional)  [Program Participation (V3)](#E_Program_Participation_V3) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional) |  |

This template represents Entity that is practitioner - a person with a formal responsibility in the provisioning of healthcare or related services.

Table 66: Entity - Practitioner Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34926](#C_4423-34926) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PROV |
| templateId | 1..1 | SHALL |  | [4423-34917](#C_4423-34917) |  |
| item | 1..1 | SHALL |  | [4423-34918](#C_4423-34918) |  |
| @root | 1..1 | SHALL |  | [4423-34921](#C_4423-34921) | 2.16.840.1.113883.10.20.28.4.137 |
| @extension | 1..1 | SHALL |  | [4423-34922](#C_4423-34922) | 2019-05-01 |
| id | 0..1 | MAY |  | [4423-34975](#C_4423-34975) |  |
| item | 1..1 | SHALL |  | [4423-34976](#C_4423-34976) |  |
| @root | 1..1 | SHALL |  | [4423-34977](#C_4423-34977) |  |
| @extension | 1..1 | SHALL |  | [4423-34978](#C_4423-34978) |  |
| playingEntity | 0..1 | MAY |  | [4423-35597](#C_4423-35597) |  |
| asRolePlayed | 0..1 | MAY |  | [4423-35598](#C_4423-35598) |  |
| code | 0..1 | MAY |  | [4423-35600](#C_4423-35600) |  |
| scopingEntity | 0..1 | MAY |  | [4423-34940](#C_4423-34940) |  |
| asRolePlayed | 0..1 | MAY |  | [4423-35601](#C_4423-35601) |  |
| code | 1..1 | SHALL |  | [4423-35602](#C_4423-35602) |  |
| roleScoped | 0..1 | MAY |  | [4423-34941](#C_4423-34941) |  |
| code | 1..1 | SHALL |  | [4423-34942](#C_4423-34942) |  |

1. SHALL contain exactly one [1..1] @classCode="PROV" healthcare provider (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34926).
2. SHALL contain exactly one [1..1] templateId (CONF:4423-34917).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34918) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.137" (CONF:4423-34921).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34922).
3. MAY contain zero or one [0..1] id (CONF:4423-34975).
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4423-34976).  
      Note: id
      1. This item SHALL contain exactly one [1..1] @root (CONF:4423-34977).
      2. This item SHALL contain exactly one [1..1] @extension (CONF:4423-34978).
4. MAY contain zero or one [0..1] playingEntity (CONF:4423-35597).
   1. The playingEntity, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4423-35598).
      1. The asRolePlayed, if present, MAY contain zero or one [0..1] code (CONF:4423-35600).  
         Note: Attribute: role - role this practitioner may perform (e.g., doctor, nurse)
5. MAY contain zero or one [0..1] scopingEntity (CONF:4423-34940).
   1. The scopingEntity, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4423-35601).
      1. The asRolePlayed, if present, SHALL contain exactly one [1..1] code (CONF:4423-35602).  
         Note: Attribute: specialty - specific specialty of the practitioner (e.g., anesthesia, cardiology, gastroenterology, etc.)
   2. The scopingEntity, if present, MAY contain zero or one [0..1] roleScoped (CONF:4423-34941).
      1. The roleScoped, if present, SHALL contain exactly one [1..1] code (CONF:4423-34942).  
         Note: Attribute: qualification - coded representation of the certification, licenses, or training pertaining to the provision of care (e.g., MD, DO, CRN, CNP, etc.)

Figure 31: Entity - Practitioner Example

<role classCode="SDLOC">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.95" extension="2019-05-01"/>

</templateId>

<playingEntity>

...

</playingEntity>

<scopingEntity>

...

</scopingEntity>

</role>

Facility Location

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 (open)]

Table 67: Facility Location Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional) |  |

This template represents the QDM attribute: Facility Location.  
The particular location of a facility in which the 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.

The Location Period addresses: StartTime = the time the patient arrived at the location; StopTime = the time the patient departed from the location.

Table 68: Facility Location Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-30514](#C_3335-30514) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| templateId | 1..1 | SHALL |  | [3335-30515](#C_3335-30515) |  |
| item | 1..1 | SHALL |  | [3335-30516](#C_3335-30516) |  |
| @root | 1..1 | SHALL |  | [3335-30517](#C_3335-30517) | 2.16.840.1.113883.10.20.28.4.92 |
| @extension | 1..1 | SHALL |  | [3335-34376](#C_3335-34376) | 2017-05-01 |
| code | 0..1 | SHOULD |  | [3335-30900](#C_3335-30900) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-30901](#C_3335-30901) |  |
| effectiveTime | 0..1 | MAY |  | [3335-31926](#C_3335-31926) |  |
| low | 0..1 | MAY |  | [3335-31927](#C_3335-31927) |  |
| high | 0..1 | MAY |  | [3335-31928](#C_3335-31928) |  |

1. SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3335-30514).
2. SHALL contain exactly one [1..1] templateId (CONF:3335-30515).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-30516) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.92" (CONF:3335-30517).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34376).
3. SHOULD contain zero or one [0..1] code (CONF:3335-30900).
   1. The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:3335-30901).
4. MAY contain zero or one [0..1] effectiveTime (CONF:3335-31926) such that it  
   Note: QDM Attribute: Location Period
   1. MAY contain zero or one [0..1] low (CONF:3335-31927).  
      Note: Facility Location Arrival Datetime (The time the patient arrived at the location)
   2. MAY contain zero or one [0..1] high (CONF:3335-31928).  
      Note: Facility Location Departure Datetime (The time the patient departed from the location)

Figure 32: Facility Location Example

<role classCode="SDLOC">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.92" extension="2017-05-01"/>

</templateId>

<code valueSet="{$QDMElementValueSetOID}"/>

</role>

Family History (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01 (open)]

Table 69: Family History (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

Family History represents a diagnosis or problem experienced by a family member of the patient. Typically, a family history will not contain very much detail, but the simple identification of a diagnosis or problem in the patient’s family history may be relevant to the care of the patient.

Timing: The time the family history item is authored (i.e., entered into the record).

Table 70: Family History (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33797](#C_4423-33797) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-33798](#C_4423-33798) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34703](#C_4423-34703) |  |
| templateId | 1..1 | SHALL |  | [4423-33791](#C_4423-33791) |  |
| item | 1..1 | SHALL |  | [4423-33792](#C_4423-33792) |  |
| @root | 1..1 | SHALL |  | [4423-33799](#C_4423-33799) | 2.16.840.1.113883.10.20.28.4.111 |
| @extension | 1..1 | SHALL |  | [4423-34383](#C_4423-34383) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-33800](#C_4423-33800) |  |
| code | 1..1 | SHALL |  | [4423-33793](#C_4423-33793) |  |
| @code | 1..1 | SHALL |  | [4423-33801](#C_4423-33801) | 10157-6 |
| @codeSystem | 1..1 | SHALL |  | [4423-33802](#C_4423-33802) | 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4423-33803](#C_4423-33803) |  |
| statusCode | 1..1 | SHALL |  | [4423-33794](#C_4423-33794) |  |
| @code | 1..1 | SHALL |  | [4423-33804](#C_4423-33804) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4423-33795](#C_4423-33795) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33805](#C_4423-33805) |  |
| participation | 0..1 | MAY |  | [4423-33796](#C_4423-33796) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33806](#C_4423-33806) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33807](#C_4423-33807) |  |
| low | 1..1 | SHALL |  | [4423-33815](#C_4423-33815) |  |
| role | 1..1 | SHALL |  | [4423-33808](#C_4423-33808) |  |
| @classCode | 1..1 | SHALL |  | [4423-33817](#C_4423-33817) | ROL |
| id | 0..1 | MAY |  | [4423-33818](#C_4423-33818) |  |
| participation | 0..1 | MAY |  | [4423-33809](#C_4423-33809) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33819](#C_4423-33819) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SUBJ |
| role | 1..1 | SHALL |  | [4423-33810](#C_4423-33810) |  |
| @classCode | 1..1 | SHALL |  | [4423-33820](#C_4423-33820) | PRS |
| code | 1..1 | SHALL |  | [4423-33811](#C_4423-33811) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33821](#C_4423-33821) |  |
| participation | 0..1 | MAY |  | [4423-35170](#C_4423-35170) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35176](#C_4423-35176) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35171](#C_4423-35171) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35174](#C_4423-35174) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35178](#C_4423-35178) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35175](#C_4423-35175) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35847](#C_4423-35847) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35849](#C_4423-35849) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35848](#C_4423-35848) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35172](#C_4423-35172) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35177](#C_4423-35177) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35173](#C_4423-35173) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-33797).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-33798).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34703).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-33791).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-33792) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.111" (CONF:4423-33799).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34383).
5. SHALL contain exactly one [1..1] id (CONF:4423-33800).
6. SHALL contain exactly one [1..1] code (CONF:4423-33793).
   1. This code SHALL contain exactly one [1..1] @code="10157-6" Family History (CONF:4423-33801).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (LOINC) (CONF:4423-33802).
7. SHALL contain exactly one [1..1] title (CONF:4423-33803).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-33794).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-33804).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-33795).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33805).
10. MAY contain zero or one [0..1] participation (CONF:4423-33796) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33806).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33807).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33815).  
          Note: QDM Attribute: Author dateTime (The time the family history item is authored (i.e., entered into the record))
    3. SHALL contain exactly one [1..1] role (CONF:4423-33808).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-33817).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-33818).
11. MAY contain zero or one [0..1] participation (CONF:4423-33809) such that it  
    Note: QDM Attribute: Relationship
    1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33819).
    2. SHALL contain exactly one [1..1] role (CONF:4423-33810).
       1. This role SHALL contain exactly one [1..1] @classCode="PRS" Person (CONF:4423-33820).
       2. This role SHALL contain exactly one [1..1] code (CONF:4423-33811).
          1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33821).
12. MAY contain zero or one [0..1] participation (CONF:4423-35170) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35176).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35171).
13. MAY contain zero or one [0..1] participation (CONF:4423-35174) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35178).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35175).
14. MAY contain zero or one [0..1] participation (CONF:4423-35847) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35849).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35848).
15. MAY contain zero or one [0..1] participation (CONF:4423-35172) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35177).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35173).

Figure 33: Family History (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.111" extension="2019-05-01"/>

</templateId>

<id root="bd4673f9-0da9-4491-98ba-a00c4191d518"/>

<code code="10157-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Family History"/>

</code>

<title value="Family History"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

<participation typeCode="SBJ">

<role classCode="PRS">

<code valueSet="{$RelationshipValueSetOID}"/>

</role>

</participation>

</observationCriteria>

Immunization, Administered (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01 (open)]

Table 71: Immunization, Administered (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Immunization, Administered.

Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents.  
Timing: The relevant dateTime references the point in time the immunization is administered.  
Author dateTime is used only for Negation Rationale, which indicates a one-time documentation of a reason an activity is not performed. Negation of QDM datatype-related actions for a reason always use the author dateTime attribute to reference timing.

Table 72: Immunization, Administered (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33833](#C_4423-33833) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-33834](#C_4423-33834) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-33835](#C_4423-33835) |  |
| templateId | 1..1 | SHALL |  | [4423-33830](#C_4423-33830) |  |
| item | 1..1 | SHALL |  | [4423-33831](#C_4423-33831) |  |
| @root | 1..1 | SHALL |  | [4423-33836](#C_4423-33836) | 2.16.840.1.113883.10.20.28.4.112 |
| @extension | 1..1 | SHALL |  | [4423-34384](#C_4423-34384) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-33837](#C_4423-33837) |  |
| code | 1..1 | SHALL |  | [4423-33832](#C_4423-33832) |  |
| @code | 1..1 | SHALL |  | [4423-33838](#C_4423-33838) | 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4423-33839](#C_4423-33839) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-33840](#C_4423-33840) |  |
| statusCode | 1..1 | SHALL |  | [4423-33841](#C_4423-33841) |  |
| @code | 1..1 | SHALL |  | [4423-33847](#C_4423-33847) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-33842](#C_4423-33842) |  |
| low | 1..1 | SHALL |  | [4423-33848](#C_4423-33848) |  |
| routeCode | 0..1 | MAY |  | [4423-33843](#C_4423-33843) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33850](#C_4423-33850) |  |
| doseQuantity | 0..1 | MAY |  | [4423-33851](#C_4423-33851) |  |
| participation | 1..1 | SHALL |  | [4423-33844](#C_4423-33844) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33852](#C_4423-33852) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-33845](#C_4423-33845) |  |
| @classCode | 1..1 | SHALL |  | [4423-33853](#C_4423-33853) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4423-33846](#C_4423-33846) |  |
| @classCode | 1..1 | SHALL |  | [4423-33854](#C_4423-33854) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-33855](#C_4423-33855) | urn:oid:2.16.840.1.113883.5.30 (EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-33856](#C_4423-33856) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33858](#C_4423-33858) |  |
| participation | 0..1 | MAY |  | [4423-35560](#C_4423-35560) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35563](#C_4423-35563) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-35561](#C_4423-35561) |  |
| low | 1..1 | SHALL |  | [4423-35564](#C_4423-35564) |  |
| role | 1..1 | SHALL |  | [4423-35562](#C_4423-35562) |  |
| @classCode | 1..1 | SHALL |  | [4423-35565](#C_4423-35565) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| participation | 0..1 | MAY |  | [4423-35179](#C_4423-35179) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35184](#C_4423-35184) | PART |
| role | 1..1 | SHALL |  | [4423-35180](#C_4423-35180) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35181](#C_4423-35181) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35185](#C_4423-35185) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35182](#C_4423-35182) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35850](#C_4423-35850) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35852](#C_4423-35852) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35851](#C_4423-35851) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35186](#C_4423-35186) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35188](#C_4423-35188) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35187](#C_4423-35187) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-33857](#C_4423-33857) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33859](#C_4423-33859) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-33860](#C_4423-33860) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-33833).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-33834).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-33835).  
   Note: QDM Attribute: Negation rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-33830).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-33831) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.112" (CONF:4423-33836).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34384).
5. SHALL contain exactly one [1..1] id (CONF:4423-33837).
6. SHALL contain exactly one [1..1] code (CONF:4423-33832).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CONF:4423-33838).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (SNOMED CT) (CONF:4423-33839).
7. SHALL contain exactly one [1..1] title (CONF:4423-33840).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-33841).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-33847).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-33842) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4423-33848).  
      Note: QDM Attribute: Relevant dateTime
10. MAY contain zero or one [0..1] routeCode (CONF:4423-33843).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33850).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4423-33851).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4423-33844) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33852).
    2. SHALL contain exactly one [1..1] role (CONF:4423-33845).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33853).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4423-33846).
          1. This playingManufacturedMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-33854).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-33855).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4423-33856).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33858).
13. MAY contain zero or one [0..1] participation (CONF:4423-35560) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35563).
    2. SHALL contain exactly one [1..1] time (CONF:4423-35561).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-35564).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-35562).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35565).
14. MAY contain zero or one [0..1] participation (CONF:4423-35179) such that it  
    Note: QDM Attribute: Practitioner
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35184).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35180).
15. MAY contain zero or one [0..1] participation (CONF:4423-35181) such that it  
    Note: QDM Attribute: Practitioner
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35185).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35182).
16. MAY contain zero or one [0..1] participation (CONF:4423-35850) such that it  
    Note: QDM Attribute: Practitioner
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35852).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35851).
17. MAY contain zero or one [0..1] participation (CONF:4423-35186) such that it  
    Note: QDM Attribute: Practitioner
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35188).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35187).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33857) 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:4423-33859).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-33860).

Figure 34: Immunization, Administered (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.112" extension="20179-05-01"/>

</templateId>

<id root="de28ff02-d2cf-436e-898a-58eb49e15b47"/>

<code code="416118004" codeSystem="2.16.840.1.113883.6.96">

<displayName value="Administration"/>

</code>

<title value="Immunization, Administered"/>

<statusCode code="completed"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingManufacturedMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingManufacturedMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Immunization, Order (V3)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01 (open)]

Table 73: Immunization, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Immunization, Order.

Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents.  
Timing: The time the order is signed; author time.

Table 74: Immunization, Order (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34025](#C_4423-34025) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-34026](#C_4423-34026) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-34027](#C_4423-34027) |  |
| templateId | 1..1 | SHALL |  | [4423-34003](#C_4423-34003) |  |
| item | 1..1 | SHALL |  | [4423-34004](#C_4423-34004) |  |
| @root | 1..1 | SHALL |  | [4423-34016](#C_4423-34016) | 2.16.840.1.113883.10.20.28.4.113 |
| @extension | 1..1 | SHALL |  | [4423-34385](#C_4423-34385) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34028](#C_4423-34028) |  |
| title | 1..1 | SHALL |  | [4423-35943](#C_4423-35943) |  |
| statusCode | 1..1 | SHALL |  | [4423-34005](#C_4423-34005) |  |
| @code | 1..1 | SHALL |  | [4423-34017](#C_4423-34017) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34006](#C_4423-34006) |  |
| low | 1..1 | SHALL |  | [4423-34018](#C_4423-34018) |  |
| routeCode | 0..1 | MAY |  | [4423-34007](#C_4423-34007) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34019](#C_4423-34019) |  |
| doseQuantity | 0..1 | MAY |  | [4423-34030](#C_4423-34030) |  |
| participation | 1..1 | SHALL |  | [4423-34008](#C_4423-34008) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34024](#C_4423-34024) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-34009](#C_4423-34009) |  |
| @classCode | 1..1 | SHALL |  | [4423-34020](#C_4423-34020) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4423-34010](#C_4423-34010) |  |
| @classCode | 1..1 | SHALL |  | [4423-34022](#C_4423-34022) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-34023](#C_4423-34023) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-34011](#C_4423-34011) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34021](#C_4423-34021) |  |
| participation | 0..1 | MAY |  | [4423-34012](#C_4423-34012) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34035](#C_4423-34035) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34013](#C_4423-34013) |  |
| low | 1..1 | SHALL |  | [4423-34031](#C_4423-34031) |  |
| role | 1..1 | SHALL |  | [4423-34014](#C_4423-34014) |  |
| @classCode | 1..1 | SHALL |  | [4423-34033](#C_4423-34033) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34034](#C_4423-34034) |  |
| participation | 0..1 | MAY |  | [4423-35189](#C_4423-35189) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35193](#C_4423-35193) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35190](#C_4423-35190) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35191](#C_4423-35191) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35194](#C_4423-35194) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35192](#C_4423-35192) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35853](#C_4423-35853) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35855](#C_4423-35855) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35854](#C_4423-35854) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35195](#C_4423-35195) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35197](#C_4423-35197) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35196](#C_4423-35196) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34002](#C_4423-34002) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34036](#C_4423-34036) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-34015](#C_4423-34015) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34494](#C_4423-34494) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34495](#C_4423-34495) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34802](#C_4423-34802) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-34025).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34026).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-34027).  
   Note: QDM Attribute: Negation rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34003).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34004) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.113" (CONF:4423-34016).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34385).
5. SHALL contain exactly one [1..1] id (CONF:4423-34028).
6. SHALL contain exactly one [1..1] title (CONF:4423-35943).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-34005).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34017).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34006) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4423-34018).  
      Note: QDM Attribute: Active dateTime
9. MAY contain zero or one [0..1] routeCode (CONF:4423-34007).
   1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34019).  
      Note: QDM Attribute: Route
10. MAY contain zero or one [0..1] doseQuantity (CONF:4423-34030).  
    Note: QDM Attribute: Dosage
11. SHALL contain exactly one [1..1] participation (CONF:4423-34008) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34024).
    2. SHALL contain exactly one [1..1] role (CONF:4423-34009).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34020).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4423-34010).
          1. This playingManufacturedMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-34022).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-34023).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4423-34011).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34021).
12. MAY contain zero or one [0..1] participation (CONF:4423-34012) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34035).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34013).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34031).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4423-34014).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34033).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34034).
13. MAY contain zero or one [0..1] participation (CONF:4423-35189) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35193).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35190).
14. MAY contain zero or one [0..1] participation (CONF:4423-35191) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35194).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35192).
15. MAY contain zero or one [0..1] participation (CONF:4423-35853) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35855).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35854).
16. MAY contain zero or one [0..1] participation (CONF:4423-35195) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35197).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35196).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34002) 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:4423-34036).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-34015).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34494) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34495).
    2. SHALL contain exactly one [1..1] [Supply](#E_Supply) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) (CONF:4423-34802).

Figure 35: Immunization, Order (V3) Example

<substanceAdministrationCriteria classCode="SBADM" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.113" extension="2019-05-01"/>

</templateId>

<id root="27beb8e3-7c86-48cf-b430-235b72786dea"/>

<title value="Immunization, Order"/>

<statusCode code="active"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingManufacturedMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingManufacturedMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Incision Datetime

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01 (open)]

Table 75: Incision Datetime Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional) |  |

This template represents the QDM attribute: Incision Datetime.  
Incision datetime is the time the incision was made.

Table 76: Incision Datetime Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-29907](#C_3335-29907) | PROC |
| @moodCode | 1..1 | SHALL |  | [3335-29908](#C_3335-29908) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3335-29909](#C_3335-29909) |  |
| item | 1..1 | SHALL |  | [3335-29910](#C_3335-29910) |  |
| @root | 1..1 | SHALL |  | [3335-29911](#C_3335-29911) | 2.16.840.1.113883.10.20.28.4.89 |
| @extension | 1..1 | SHALL |  | [3335-33648](#C_3335-33648) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-29913](#C_3335-29913) |  |
| @code | 1..1 | SHALL |  | [3335-29914](#C_3335-29914) | 34896006 |
| @codeSystem | 1..1 | SHALL |  | [3335-29915](#C_3335-29915) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3335-29916](#C_3335-29916) |  |
| low | 0..1 | MAY |  | [3335-29917](#C_3335-29917) |  |

1. SHALL contain exactly one [1..1] @classCode="PROC" (CONF:3335-29907).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-29908).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-29909).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-29910) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.89" (CONF:3335-29911).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33648).
4. SHALL contain exactly one [1..1] code (CONF:3335-29913).
   1. This code SHALL contain exactly one [1..1] @code="34896006" Incision (CONF:3335-29914).
   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:3335-29915).
5. MAY contain zero or one [0..1] effectiveTime (CONF:3335-29916) such that it
   1. MAY contain zero or one [0..1] low (CONF:3335-29917).

Figure 36: Incision Datetime Example

<procedureCriteria classCode="PROC" moodCode="EVN">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.89" extension="2017-05-01"/>

</templateId>

<code code="34896006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="incision"/>

</code>

<statusCode code="completed"/>

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

<low value="201301011000"/>

</effectiveTime>

</procedureCriteria>

Intervention, Order (V2)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01 (open)]

Table 77: Intervention, Order (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: 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. Examples of this are an order for smoking cessation counseling or physical therapy.  
Timing: The time the order is signed; author time

Table 78: Intervention, Order (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30631](#C_4423-30631) | ACT |
| @moodCode | 1..1 | SHALL |  | [4423-30632](#C_4423-30632) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-30633](#C_4423-30633) |  |
| templateId | 1..1 | SHALL |  | [4423-30643](#C_4423-30643) |  |
| item | 1..1 | SHALL |  | [4423-30644](#C_4423-30644) |  |
| @root | 1..1 | SHALL |  | [4423-30645](#C_4423-30645) | 2.16.840.1.113883.10.20.28.4.35 |
| @extension | 1..1 | SHALL |  | [4423-33383](#C_4423-33383) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30650](#C_4423-30650) |  |
| code | 1..1 | SHALL |  | [4423-30652](#C_4423-30652) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30653](#C_4423-30653) |  |
| title | 1..1 | SHALL |  | [4423-35944](#C_4423-35944) |  |
| statusCode | 1..1 | SHALL |  | [4423-30654](#C_4423-30654) |  |
| @code | 1..1 | SHALL |  | [4423-30655](#C_4423-30655) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-33490](#C_4423-33490) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33492](#C_4423-33492) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33491](#C_4423-33491) |  |
| low | 1..1 | SHALL |  | [4423-33493](#C_4423-33493) |  |
| role | 1..1 | SHALL |  | [4423-33586](#C_4423-33586) |  |
| @classCode | 1..1 | SHALL |  | [4423-33587](#C_4423-33587) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33588](#C_4423-33588) |  |
| participation | 0..1 | MAY |  | [4423-35210](#C_4423-35210) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35214](#C_4423-35214) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35211](#C_4423-35211) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35212](#C_4423-35212) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35215](#C_4423-35215) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35213](#C_4423-35213) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35856](#C_4423-35856) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35858](#C_4423-35858) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35857](#C_4423-35857) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35216](#C_4423-35216) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35218](#C_4423-35218) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35217](#C_4423-35217) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30647](#C_4423-30647) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30648](#C_4423-30648) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30649](#C_4423-30649) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:4423-30631).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30632).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30633).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30643).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30644) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.35" (CONF:4423-30645).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33383).
5. SHALL contain exactly one [1..1] id (CONF:4423-30650).
6. SHALL contain exactly one [1..1] code (CONF:4423-30652).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30653).
7. SHALL contain exactly one [1..1] title (CONF:4423-35944).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30654).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30655).
9. MAY contain zero or one [0..1] participation (CONF:4423-33490) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33492).
   2. SHALL contain exactly one [1..1] time (CONF:4423-33491).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-33493).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4423-33586).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33587).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-33588).
10. MAY contain zero or one [0..1] participation (CONF:4423-35210) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35214).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35211).
11. MAY contain zero or one [0..1] participation (CONF:4423-35212) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35215).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35213).
12. MAY contain zero or one [0..1] participation (CONF:4423-35856) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35858).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35857).
13. MAY contain zero or one [0..1] participation (CONF:4423-35216) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35218).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35217).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30647) 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:4423-30648).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30649).

Figure 37: Intervention, Order Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.35" extension="2019-05-01"/>

</templateId>

<id root="A8951AC3-990F-43E4-970C-1F0F396D203E"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Intervention, Order"/>

<statusCode code="active"/>

</actCriteria>

Intervention, Performed (V3)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01 (open)]

Table 79: Intervention, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Intervention, Performed.

Intervention performed represents an intervention that has been completed. Intervention represents a course of action intended to achieve a result in the care of persons with health problems that does not involve direct physical contact with a patient.  
Timing: The Relevant Period addresses: startTime – The time the intervention begins; stopTime – The time the intervention ends.Relevant Period references a start and stop time for an intervention that occurs over a time interval.  
Relevant dateTime references the time the intervention is performed when the intervention occurs at a single point in time.  
Author dateTime references the time the intervention was recorded and applies only when the record has no reference to the time the intervention was performed and only the recorded time is available.

Table 80: Intervention, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31150](#C_4423-31150) | ACT |
| @moodCode | 1..1 | SHALL |  | [4423-31151](#C_4423-31151) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-31152](#C_4423-31152) |  |
| templateId | 1..1 | SHALL |  | [4423-31153](#C_4423-31153) |  |
| item | 1..1 | SHALL |  | [4423-31154](#C_4423-31154) |  |
| @root | 1..1 | SHALL |  | [4423-31155](#C_4423-31155) | 2.16.840.1.113883.10.20.28.4.36 |
| @extension | 1..1 | SHALL |  | [4423-33384](#C_4423-33384) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31156](#C_4423-31156) |  |
| code | 1..1 | SHALL |  | [4423-31157](#C_4423-31157) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31158](#C_4423-31158) |  |
| title | 1..1 | SHALL |  | [4423-35945](#C_4423-35945) |  |
| statusCode | 1..1 | SHALL |  | [4423-31160](#C_4423-31160) |  |
| @code | 1..1 | SHALL |  | [4423-31161](#C_4423-31161) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31162](#C_4423-31162) |  |
| low | 0..1 | MAY |  | [4423-31163](#C_4423-31163) |  |
| high | 0..1 | MAY |  | [4423-31164](#C_4423-31164) |  |
| participation | 0..1 | MAY |  | [4423-34523](#C_4423-34523) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34526](#C_4423-34526) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34524](#C_4423-34524) |  |
| low | 1..1 | SHALL |  | [4423-34527](#C_4423-34527) |  |
| role | 1..1 | SHALL |  | [4423-34525](#C_4423-34525) |  |
| @classCode | 1..1 | SHALL |  | [4423-34528](#C_4423-34528) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34529](#C_4423-34529) |  |
| participation | 0..1 | MAY |  | [4423-35219](#C_4423-35219) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35223](#C_4423-35223) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35220](#C_4423-35220) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35221](#C_4423-35221) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35224](#C_4423-35224) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35222](#C_4423-35222) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35859](#C_4423-35859) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35861](#C_4423-35861) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35860](#C_4423-35860) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35225](#C_4423-35225) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35227](#C_4423-35227) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35226](#C_4423-35226) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31171](#C_4423-31171) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31172](#C_4423-31172) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31173](#C_4423-31173) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-33431](#C_4423-33431) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33433](#C_4423-33433) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4423-33434](#C_4423-33434) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-33432](#C_4423-33432) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33435](#C_4423-33435) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-33436](#C_4423-33436) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:4423-31150).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31151).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31152).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31153).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31154) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.36" (CONF:4423-31155).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33384).
5. SHALL contain exactly one [1..1] id (CONF:4423-31156).
6. SHALL contain exactly one [1..1] code (CONF:4423-31157).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31158).
7. SHALL contain exactly one [1..1] title (CONF:4423-35945).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31160).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31161).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31162) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31163).  
      Note: startTime of Relevant Period (The time the intervention begins) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-31164).  
      Note: stopTime of Relevant Period (The time the intervention ends)
10. MAY contain zero or one [0..1] participation (CONF:4423-34523) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34526).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34524).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34527).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34525).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34528).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34529).
11. MAY contain zero or one [0..1] participation (CONF:4423-35219) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35223).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35220).
12. MAY contain zero or one [0..1] participation (CONF:4423-35221) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35224).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35222).
13. MAY contain zero or one [0..1] participation (CONF:4423-35859) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35861).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35860).
14. MAY contain zero or one [0..1] participation (CONF:4423-35225) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35227).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35226).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31171) 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:4423-31172).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31173).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33431) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" Has value (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-33433).
    2. SHALL contain exactly one [1..1] [Result (V2)](#E_Result_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) (CONF:4423-33434).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33432) 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:4423-33435).
    2. SHALL contain exactly one [1..1] [Status (V2)](#E_Status_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01) (CONF:4423-33436).

Figure 38: Intervention, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.36" extension="2019-05-01"/>

</templateId>

<id root="a2faf205-f9c1-485c-8edc-c9c0021a218c" />

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Intervention, Performed"/>

<statusCode code="completed"/>

</actCriteria>

Intervention, Recommended (V2)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01 (open)]

Table 81: Intervention, Recommended (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Intervention, Recommended.

Intervention recommended represents a recommendation for an intervention. Intervention represents a course of action intended to achieve a result in the care of persons with health problems that does not involve direct physical contact with a patient. Examples include patient education and therapeutic communication.  
Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 82: Intervention, Recommended (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30801](#C_4423-30801) | ACT |
| @moodCode | 1..1 | SHALL |  | [4423-30802](#C_4423-30802) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-30806](#C_4423-30806) |  |
| templateId | 1..1 | SHALL |  | [4423-30803](#C_4423-30803) |  |
| item | 1..1 | SHALL |  | [4423-30804](#C_4423-30804) |  |
| @root | 1..1 | SHALL |  | [4423-30805](#C_4423-30805) | 2.16.840.1.113883.10.20.28.4.37 |
| @extension | 1..1 | SHALL |  | [4423-33385](#C_4423-33385) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30807](#C_4423-30807) |  |
| code | 1..1 | SHALL |  | [4423-30808](#C_4423-30808) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30809](#C_4423-30809) |  |
| title | 1..1 | SHALL |  | [4423-35946](#C_4423-35946) |  |
| statusCode | 1..1 | SHALL |  | [4423-30811](#C_4423-30811) |  |
| @code | 1..1 | SHALL |  | [4423-30812](#C_4423-30812) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-34392](#C_4423-34392) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34395](#C_4423-34395) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34393](#C_4423-34393) |  |
| low | 1..1 | SHALL |  | [4423-34396](#C_4423-34396) |  |
| role | 1..1 | SHALL |  | [4423-34394](#C_4423-34394) |  |
| @classCode | 1..1 | SHALL |  | [4423-34534](#C_4423-34534) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34397](#C_4423-34397) |  |
| participation | 0..1 | MAY |  | [4423-35228](#C_4423-35228) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35232](#C_4423-35232) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35229](#C_4423-35229) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35230](#C_4423-35230) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35233](#C_4423-35233) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35231](#C_4423-35231) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35862](#C_4423-35862) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35864](#C_4423-35864) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35863](#C_4423-35863) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35234](#C_4423-35234) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35236](#C_4423-35236) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35235](#C_4423-35235) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30817](#C_4423-30817) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30818](#C_4423-30818) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30819](#C_4423-30819) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:4423-30801).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30802).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30806).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30803).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30804) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.37" (CONF:4423-30805).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33385).
5. SHALL contain exactly one [1..1] id (CONF:4423-30807).
6. SHALL contain exactly one [1..1] code (CONF:4423-30808).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30809).
7. SHALL contain exactly one [1..1] title (CONF:4423-35946).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30811).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30812).
9. MAY contain zero or one [0..1] participation (CONF:4423-34392) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34395).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34393).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34396).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
   3. SHALL contain exactly one [1..1] role (CONF:4423-34394).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34534).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-34397).
10. MAY contain zero or one [0..1] participation (CONF:4423-35228) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35232).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35229).
11. MAY contain zero or one [0..1] participation (CONF:4423-35230) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35233).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35231).
12. MAY contain zero or one [0..1] participation (CONF:4423-35862) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35864).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35863).
13. MAY contain zero or one [0..1] participation (CONF:4423-35234) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35236).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35235).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30817) 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:4423-30818).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30819).

Figure 39: Intervention, Recommended (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.37" extension="2019-05-01"/>

</templateId>

<id root="e242b3ae-d300-4038-a039-f9cd511544c5"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Intervention, Recommended" />

<statusCode code="active"/>

</actCriteria>

Laboratory Test Reference Range

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01 (open)]

Table 83: Laboratory Test Reference Range Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test Component](#E_Laboratory_Test_Component) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional) |  |

This template represents the QDM attribute: Reference Range Low and High.  
Reference Range High: The high bound (inclusive) of values that are considered normal.  
Reference Range Low: The low bound (inclusive) of values that are considered normal.

Table 84: Laboratory Test Reference Range Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-34406](#C_3335-34406) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-34407](#C_3335-34407) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3335-34398](#C_3335-34398) |  |
| item | 1..1 | SHALL |  | [3335-34399](#C_3335-34399) |  |
| @root | 1..1 | SHALL |  | [3335-34401](#C_3335-34401) | 2.16.840.1.113883.10.20.28.4.124 |
| @extension | 1..1 | SHALL |  | [3335-34615](#C_3335-34615) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-34400](#C_3335-34400) |  |
| @code | 1..1 | SHALL |  | [3335-34403](#C_3335-34403) | 19147-8 |
| @codeSystem | 1..1 | SHALL |  | [3335-34404](#C_3335-34404) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | IVL\_PQ | [3335-34405](#C_3335-34405) |  |
| low | 0..1 | MAY |  | [3335-34410](#C_3335-34410) |  |
| high | 0..1 | MAY |  | [3335-34411](#C_3335-34411) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-34406).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-34407).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-34398).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-34399) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.124" (CONF:3335-34401).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34615).
4. SHALL contain exactly one [1..1] code (CONF:3335-34400).
   1. This code SHALL contain exactly one [1..1] @code="19147-8" Lab Test Reference Range (CONF:3335-34403).
   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:3335-34404).
5. SHALL contain exactly one [1..1] value with @xsi:type="IVL\_PQ" (CONF:3335-34405).
   1. This value MAY contain zero or one [0..1] low (CONF:3335-34410).  
      Note: QDM Attribute: Reference Range Low
   2. This value MAY contain zero or one [0..1] high (CONF:3335-34411).  
      Note: QDM Attribute: Reference Range High

Figure 40: Laboratory Test Reference Range Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.124" extension="2017-05-01"/>

</templateId>

<id root="6a296c27-279f-4bdc-8707-6d030a6839a5"/>

<code code="19147-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Reference Range"/>

</code>

<title value="Laboratory Test Reference Range"/>

<value xsi:type="IVL\_PQ">

<high value="17.5" unit="g/dL"/>

</value>

</observationCriteria>

Laboratory Test, Order (V3)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01 (open)]

Table 85: Laboratory Test, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Laboratory Test, Order.

Laboratory Test represents 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 to see if treatment is working, or monitor the disease over time. Laboratory tests may be performed on specimens not derived from patients (electrolytes or contents of water or consumed fluids, cultures of environment, pets, other animals).  
Timing: The time the order is signed; author datetime.

Table 86: Laboratory Test, Order (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30389](#C_4423-30389) | PROC |
| @moodCode | 1..1 | SHALL |  | [4423-30390](#C_4423-30390) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-30391](#C_4423-30391) |  |
| templateId | 1..1 | SHALL |  | [4423-30392](#C_4423-30392) |  |
| item | 1..1 | SHALL |  | [4423-30393](#C_4423-30393) |  |
| @root | 1..1 | SHALL |  | [4423-30394](#C_4423-30394) | 2.16.840.1.113883.10.20.28.4.41 |
| @extension | 1..1 | SHALL |  | [4423-33649](#C_4423-33649) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30395](#C_4423-30395) |  |
| code | 1..1 | SHALL |  | [4423-30396](#C_4423-30396) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30397](#C_4423-30397) |  |
| title | 1..1 | SHALL |  | [4423-35947](#C_4423-35947) |  |
| statusCode | 1..1 | SHALL |  | [4423-33109](#C_4423-33109) |  |
| @code | 1..1 | SHALL |  | [4423-33110](#C_4423-33110) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-33495](#C_4423-33495) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33497](#C_4423-33497) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33496](#C_4423-33496) |  |
| low | 1..1 | SHALL |  | [4423-33498](#C_4423-33498) |  |
| role | 1..1 | SHALL |  | [4423-33589](#C_4423-33589) |  |
| @classCode | 1..1 | SHALL |  | [4423-33590](#C_4423-33590) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33591](#C_4423-33591) |  |
| participation | 0..1 | MAY |  | [4423-35237](#C_4423-35237) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35241](#C_4423-35241) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35238](#C_4423-35238) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35239](#C_4423-35239) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35242](#C_4423-35242) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35240](#C_4423-35240) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35865](#C_4423-35865) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35867](#C_4423-35867) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35866](#C_4423-35866) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35243](#C_4423-35243) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35245](#C_4423-35245) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35244](#C_4423-35244) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30405](#C_4423-30405) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30406](#C_4423-30406) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30407](#C_4423-30407) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CONF:4423-30389).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30390).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30391).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30392).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30393) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.41" (CONF:4423-30394).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33649).
5. SHALL contain exactly one [1..1] id (CONF:4423-30395).
6. SHALL contain exactly one [1..1] code (CONF:4423-30396).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30397).
7. SHALL contain exactly one [1..1] title (CONF:4423-35947).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-33109).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-33110).
9. MAY contain zero or one [0..1] participation (CONF:4423-33495) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33497).
   2. SHALL contain exactly one [1..1] time (CONF:4423-33496).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-33498).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4423-33589).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33590).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-33591).
10. MAY contain zero or one [0..1] participation (CONF:4423-35237) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35241).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35238).
11. MAY contain zero or one [0..1] participation (CONF:4423-35239) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35242).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35240).
12. MAY contain zero or one [0..1] participation (CONF:4423-35865) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35867).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35866).
13. MAY contain zero or one [0..1] participation (CONF:4423-35243) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35245).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35244).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30405) 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:4423-30406).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30407).

Figure 41: Laboratory Test, Order (V3) Example

<procedureCriteria classCode="PROC" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.41" extension="2019-05-01"/>

</templateId>

<id root="3a2a37c0-9abe-4c30-a254-8561a75d1cb4"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Laboratory Test, Order"/>

<statusCode code="active"/>

</procedureCriteria>

Laboratory Test, Performed (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01 (open)]

Table 87: Laboratory Test, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Laboratory Test Component](#E_Laboratory_Test_Component) (optional)  [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Laboratory Test, Performed.  
Laboratory Test represents 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 to see if treatment is working, or monitor the disease over time. Laboratory tests may be performed on specimens not derived from patients (electrolytes or contents of water or consumed fluids, cultures of environment, pets, other animals).  
Timing: Relevant dateTime references the time the laboratory test is performed if it occurs at a single point in time.  
Relevant Period references a start and stop time for a laboratory that occurs over a time interval:  
The Relevant Period addresses: startTime – When the laboratory test is initiated (i.e., the time the specimen collection begins); stopTime – when the laboratory test is completed (i.e., the time the specimen collection ends)  
QDM Attributes: Result and Result dateTime are represented using the Result (V2) template.

Table 88: Laboratory Test, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30364](#C_4423-30364) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-33237](#C_4423-33237) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-30365](#C_4423-30365) |  |
| templateId | 1..1 | SHALL |  | [4423-30366](#C_4423-30366) |  |
| item | 1..1 | SHALL |  | [4423-30367](#C_4423-30367) |  |
| @root | 1..1 | SHALL |  | [4423-30368](#C_4423-30368) | 2.16.840.1.113883.10.20.28.4.42 |
| @extension | 1..1 | SHALL |  | [4423-33373](#C_4423-33373) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30369](#C_4423-30369) |  |
| code | 1..1 | SHALL |  | [4423-30370](#C_4423-30370) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30371](#C_4423-30371) |  |
| title | 1..1 | SHALL |  | [4423-35948](#C_4423-35948) |  |
| statusCode | 1..1 | SHALL |  | [4423-30373](#C_4423-30373) |  |
| @code | 1..1 | SHALL |  | [4423-30509](#C_4423-30509) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-30374](#C_4423-30374) |  |
| low | 0..1 | MAY |  | [4423-30375](#C_4423-30375) |  |
| high | 0..1 | MAY |  | [4423-30376](#C_4423-30376) |  |
| value | 0..0 | SHALL NOT |  | [4423-33611](#C_4423-33611) |  |
| methodCode | 0..1 | MAY |  | [4423-30377](#C_4423-30377) |  |
| item | 1..1 | SHALL |  | [4423-30378](#C_4423-30378) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30379](#C_4423-30379) |  |
| participation | 0..1 | MAY |  | [4423-34535](#C_4423-34535) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34538](#C_4423-34538) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34536](#C_4423-34536) |  |
| low | 1..1 | SHALL |  | [4423-34539](#C_4423-34539) |  |
| role | 1..1 | SHALL |  | [4423-34537](#C_4423-34537) |  |
| @classCode | 1..1 | SHALL |  | [4423-34540](#C_4423-34540) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34541](#C_4423-34541) |  |
| participation | 0..1 | MAY |  | [4423-35246](#C_4423-35246) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35250](#C_4423-35250) | PART |
| role | 1..1 | SHALL |  | [4423-35247](#C_4423-35247) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35248](#C_4423-35248) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35251](#C_4423-35251) | PART |
| role | 1..1 | SHALL |  | [4423-35249](#C_4423-35249) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35871](#C_4423-35871) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35873](#C_4423-35873) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35872](#C_4423-35872) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35252](#C_4423-35252) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35254](#C_4423-35254) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35253](#C_4423-35253) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30380](#C_4423-30380) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34061](#C_4423-34061) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30382](#C_4423-30382) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34767](#C_4423-34767) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34768](#C_4423-34768) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4423-34769](#C_4423-34769) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-33372](#C_4423-33372) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34618](#C_4423-34618) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-33375](#C_4423-33375) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..1 | MAY |  | [4423-34062](#C_4423-34062) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34066](#C_4423-34066) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFV |
| observationCriteria | 1..1 | SHALL |  | [4423-34412](#C_4423-34412) | [Laboratory Test Reference Range (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01](#E_Laboratory_Test_Reference_Range) |
| outboundRelationship | 0..\* | MAY |  | [4423-34617](#C_4423-34617) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34619](#C_4423-34619) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34620](#C_4423-34620) | [Laboratory Test Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01](#E_Laboratory_Test_Component) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-30364).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-33237).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30365).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30366).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30367) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.42" (CONF:4423-30368).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33373).
5. SHALL contain exactly one [1..1] id (CONF:4423-30369).
6. SHALL contain exactly one [1..1] code (CONF:4423-30370).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30371).
7. SHALL contain exactly one [1..1] title (CONF:4423-35948).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-30373).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30509).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-30374) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-30375).  
      Note: startTime of Relevant Period (When the laboratory test is initiated (i.e., the time the specimen collection begins)) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-30376).  
      Note: stopTime of Relevant Period (When the laboratory test is completed (i.e., the time the specimen collection ends))
10. SHALL NOT contain [0..0] value (CONF:4423-33611).  
    Note: Use Result (V2) template for the QDM Attribute: Result
11. MAY contain zero or one [0..1] methodCode (CONF:4423-30377).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-30378).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30379).
12. MAY contain zero or one [0..1] participation (CONF:4423-34535) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34538).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34536).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34539).  
          Note: QDM Attribute: Author Datetime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34537).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34540).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34541).
13. MAY contain zero or one [0..1] participation (CONF:4423-35246) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35250).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35247).
14. MAY contain zero or one [0..1] participation (CONF:4423-35248) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35251).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35249).
15. MAY contain zero or one [0..1] participation (CONF:4423-35871) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35873).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35872).
16. MAY contain zero or one [0..1] participation (CONF:4423-35252) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35254).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35253).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30380) 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:4423-34061).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30382).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34767) such that it  
    Note: QDM Attribute: Result, QDM Attribute: Result dateTime
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" has value (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34768).
    2. SHALL contain exactly one [1..1] [Result (V2)](#E_Result_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) (CONF:4423-34769).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33372) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34618).
    2. SHALL contain exactly one [1..1] [Status (V2)](#E_Status_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01) (CONF:4423-33375).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34062) such that it  
    Note: QDM Attribute: Reference Range Low, QDM Attribute: Reference Range High
    1. SHALL contain exactly one [1..1] @typeCode="REFV" Has Reference Values (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34066).
    2. SHALL contain exactly one [1..1] [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01) (CONF:4423-34412).
21. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34617) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34619).
    2. SHALL contain exactly one [1..1] [Laboratory Test Component](#E_Laboratory_Test_Component) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01) (CONF:4423-34620).

Figure 42: Laboratory Test, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.42" extension="2019-05-01"/>

</templateId>

<id root="05f0a7c8-371e-4e77-aad4-22ff9fdf7fa3"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Laboratory Test, Performed"/>

<statusCode code="completed"/>

</observationCriteria>

Laboratory Test, Recommended (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01 (open)]

Table 89: Laboratory Test, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Laboratory Test, Recommended.  
This template represents a recommendation for a laboratory test. Laboratory Test represents 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 to see if treatment is working, or monitor the disease over time. Laboratory tests may be performed on specimens not derived from patients (electrolytes or contents of water or consumed fluids, cultures of environment, pets, other animals).  
Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 90: Laboratory Test, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30414](#C_4423-30414) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-30415](#C_4423-30415) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-30416](#C_4423-30416) |  |
| templateId | 1..1 | SHALL |  | [4423-30417](#C_4423-30417) |  |
| item | 1..1 | SHALL |  | [4423-30418](#C_4423-30418) |  |
| @root | 1..1 | SHALL |  | [4423-30419](#C_4423-30419) | 2.16.840.1.113883.10.20.28.4.43 |
| @extension | 1..1 | SHALL |  | [4423-33692](#C_4423-33692) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30420](#C_4423-30420) |  |
| code | 1..1 | SHALL |  | [4423-30421](#C_4423-30421) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30422](#C_4423-30422) |  |
| title | 1..1 | SHALL |  | [4423-35949](#C_4423-35949) |  |
| statusCode | 1..1 | SHALL |  | [4423-30424](#C_4423-30424) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [4423-30510](#C_4423-30510) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4423-34413](#C_4423-34413) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34416](#C_4423-34416) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34414](#C_4423-34414) |  |
| low | 1..1 | SHALL |  | [4423-34417](#C_4423-34417) |  |
| role | 1..1 | SHALL |  | [4423-34415](#C_4423-34415) |  |
| @classCode | 1..1 | SHALL |  | [4423-34418](#C_4423-34418) | ROL |
| id | 0..1 | MAY |  | [4423-34419](#C_4423-34419) |  |
| participation | 0..1 | MAY |  | [4423-35255](#C_4423-35255) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35259](#C_4423-35259) | PART |
| role | 1..1 | SHALL |  | [4423-35256](#C_4423-35256) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35257](#C_4423-35257) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35260](#C_4423-35260) | PART |
| role | 1..1 | SHALL |  | [4423-35258](#C_4423-35258) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35868](#C_4423-35868) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35870](#C_4423-35870) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35869](#C_4423-35869) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35261](#C_4423-35261) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35263](#C_4423-35263) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35262](#C_4423-35262) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30431](#C_4423-30431) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34115](#C_4423-34115) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30433](#C_4423-30433) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-30414).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-30415).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-30416).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-30417).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-30418) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.43" (CONF:4423-30419).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33692).
5. SHALL contain exactly one [1..1] id (CONF:4423-30420).
6. SHALL contain exactly one [1..1] code (CONF:4423-30421).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30422).
7. SHALL contain exactly one [1..1] title (CONF:4423-35949).
8. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30424).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30510).
9. MAY contain zero or one [0..1] participation (CONF:4423-34413) such that it
   1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34416).
   2. SHALL contain exactly one [1..1] time (CONF:4423-34414).
      1. This time SHALL contain exactly one [1..1] low (CONF:4423-34417).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored (i.e., provided to the patient))
   3. SHALL contain exactly one [1..1] role (CONF:4423-34415).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34418).
      2. This role MAY contain zero or one [0..1] id (CONF:4423-34419).
10. MAY contain zero or one [0..1] participation (CONF:4423-35255) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35259).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35256).
11. MAY contain zero or one [0..1] participation (CONF:4423-35257) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35260).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35258).
12. MAY contain zero or one [0..1] participation (CONF:4423-35868) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35870).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35869).
13. MAY contain zero or one [0..1] participation (CONF:4423-35261) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35263).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35262).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30431) 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:4423-34115).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30433).

Figure 43: Laboratory Test, Recommended (V3) Example

<observationCriteria classCode="OBS" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.43" extension="2019-05-01"/>

</templateId>

<id root="7a54587b-f1d6-4ce1-bb4c-30ffc5139565"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Laboratory Test, Recommended"/>

<statusCode code="active"/>

</observationCriteria>

Medication, Active (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01 (open)]

Table 91: Medication, Active (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Medication, Active.  
Medication represents clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. Medication active represents medication that is currently being taken by the patient.  
Timing: Relevant dateTime references the time the medication is active on the medication record if it was given or taken at a single point in time.  
Relevant Period references a start and stop time for an active medication on the medication record that is given or taken over a time interval: StartTime = when the medication is first known to be used (generally the time of entry on the medication list); StopTime = when the medication is discontinued (generally the time discontinuation is recorded on the medication list).  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.

Table 92: Medication, Active (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31950](#C_4423-31950) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-31951](#C_4423-31951) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34809](#C_4423-34809) |  |
| templateId | 1..1 | SHALL |  | [4423-31953](#C_4423-31953) |  |
| item | 1..1 | SHALL |  | [4423-31954](#C_4423-31954) |  |
| @root | 1..1 | SHALL |  | [4423-31955](#C_4423-31955) | 2.16.840.1.113883.10.20.28.4.44 |
| @extension | 1..1 | SHALL |  | [4423-33376](#C_4423-33376) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31956](#C_4423-31956) |  |
| title | 1..1 | SHALL |  | [4423-35950](#C_4423-35950) |  |
| statusCode | 1..1 | SHALL |  | [4423-31958](#C_4423-31958) |  |
| @code | 1..1 | SHALL |  | [4423-31959](#C_4423-31959) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31960](#C_4423-31960) |  |
| low | 0..1 | MAY |  | [4423-31961](#C_4423-31961) |  |
| high | 0..1 | MAY |  | [4423-31962](#C_4423-31962) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34803](#C_4423-34803) |  |
| period | 0..1 | MAY |  | [4423-34804](#C_4423-34804) |  |
| routeCode | 0..1 | MAY |  | [4423-33115](#C_4423-33115) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33116](#C_4423-33116) |  |
| doseQuantity | 0..1 | MAY |  | [4423-33117](#C_4423-33117) |  |
| participation | 1..1 | SHALL |  | [4423-33121](#C_4423-33121) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33122](#C_4423-33122) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-33123](#C_4423-33123) |  |
| playingMaterial | 1..1 | SHALL |  | [4423-33124](#C_4423-33124) |  |
| @classCode | 1..1 | SHALL |  | [4423-34116](#C_4423-34116) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-33125](#C_4423-33125) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-33126](#C_4423-33126) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33127](#C_4423-33127) |  |
| participation | 0..1 | MAY |  | [4423-35264](#C_4423-35264) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35268](#C_4423-35268) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35265](#C_4423-35265) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35266](#C_4423-35266) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35269](#C_4423-35269) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35267](#C_4423-35267) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35874](#C_4423-35874) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35876](#C_4423-35876) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35875](#C_4423-35875) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35270](#C_4423-35270) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35272](#C_4423-35272) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35271](#C_4423-35271) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administrated (CONF:4423-31950).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31951).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34809).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31953).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31954) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.44" (CONF:4423-31955).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33376).
5. SHALL contain exactly one [1..1] id (CONF:4423-31956).
6. SHALL contain exactly one [1..1] title (CONF:4423-35950).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-31958).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31959).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31960) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31961).  
      Note: startDateTime of Relevant Period- 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) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-31962).  
      Note: stopTime of Relevant Period - 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)
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34803) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-34804).
10. MAY contain zero or one [0..1] routeCode (CONF:4423-33115).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33116).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4423-33117).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4423-33121) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33122).
    2. SHALL contain exactly one [1..1] role (CONF:4423-33123).
       1. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4423-33124).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-34116).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-33125).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4423-33126).
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33127).
13. MAY contain zero or one [0..1] participation (CONF:4423-35264) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35268).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35265).
14. MAY contain zero or one [0..1] participation (CONF:4423-35266) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35269).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35267).
15. MAY contain zero or one [0..1] participation (CONF:4423-35874) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35876).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35875).
16. MAY contain zero or one [0..1] participation (CONF:4423-35270) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35272).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35271).

Figure 44: Medication, Active (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.44" extension="2019-05-01"/>

</templateId>

<id root="6c21f22e-3ae3-435d-a240-7718cc418b7d"/>

<title value="Medication, Active"/>

<statusCode code="active"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Medication, Administered (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01 (open)]

Table 93: Medication, Administered (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Medication, Administered.

A medication refers to clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. This template represents a medication that was administered.

Timing: Relevant dateTime references the time the medication is administered if it was given or taken at a single point in time.  
Relevant Period references a start and stop time for medication administration if the administration event occurred over a time interval (e.g., an intravenous infusion). StartTime = 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); StopTime = 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).  
Author dateTime references the time the medication administration was recorded and applies only when the record has no reference to the time the medication administration occurred and only the recorded time is available.  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.

Table 94: Medication, Administered (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32047](#C_4423-32047) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-32048](#C_4423-32048) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-32049](#C_4423-32049) |  |
| templateId | 1..1 | SHALL |  | [4423-32050](#C_4423-32050) |  |
| item | 1..1 | SHALL |  | [4423-32051](#C_4423-32051) |  |
| @root | 1..1 | SHALL |  | [4423-32052](#C_4423-32052) | 2.16.840.1.113883.10.20.28.4.45 |
| @extension | 1..1 | SHALL |  | [4423-33386](#C_4423-33386) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32053](#C_4423-32053) |  |
| code | 1..1 | SHALL |  | [4423-32054](#C_4423-32054) |  |
| @code | 1..1 | SHALL |  | [4423-32055](#C_4423-32055) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4423-32056](#C_4423-32056) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-35951](#C_4423-35951) |  |
| statusCode | 1..1 | SHALL |  | [4423-32058](#C_4423-32058) |  |
| @code | 1..1 | SHALL |  | [4423-32059](#C_4423-32059) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-32060](#C_4423-32060) |  |
| low | 0..1 | MAY |  | [4423-32061](#C_4423-32061) |  |
| high | 0..1 | MAY |  | [4423-32062](#C_4423-32062) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34806](#C_4423-34806) |  |
| period | 0..1 | MAY |  | [4423-34807](#C_4423-34807) |  |
| routeCode | 0..1 | MAY |  | [4423-32506](#C_4423-32506) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32507](#C_4423-32507) |  |
| doseQuantity | 0..1 | MAY |  | [4423-33128](#C_4423-33128) |  |
| participation | 1..1 | SHALL |  | [4423-32497](#C_4423-32497) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32503](#C_4423-32503) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32498](#C_4423-32498) |  |
| @classCode | 1..1 | SHALL |  | [4423-32504](#C_4423-32504) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4423-32499](#C_4423-32499) |  |
| @classCode | 1..1 | SHALL |  | [4423-32500](#C_4423-32500) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32520](#C_4423-32520) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32501](#C_4423-32501) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32502](#C_4423-32502) |  |
| participation | 0..1 | MAY |  | [4423-34542](#C_4423-34542) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34545](#C_4423-34545) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34543](#C_4423-34543) |  |
| low | 1..1 | SHALL |  | [4423-34546](#C_4423-34546) |  |
| role | 1..1 | SHALL |  | [4423-34544](#C_4423-34544) |  |
| @classCode | 1..1 | SHALL |  | [4423-34547](#C_4423-34547) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34548](#C_4423-34548) |  |
| participation | 0..1 | MAY |  | [4423-35273](#C_4423-35273) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35277](#C_4423-35277) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35274](#C_4423-35274) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35275](#C_4423-35275) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35278](#C_4423-35278) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35276](#C_4423-35276) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35877](#C_4423-35877) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35879](#C_4423-35879) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35878](#C_4423-35878) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35279](#C_4423-35279) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35281](#C_4423-35281) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35280](#C_4423-35280) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-32511](#C_4423-32511) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32512](#C_4423-32512) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-32513](#C_4423-32513) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-32047).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32048).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-32049).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32050).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32051) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.45" (CONF:4423-32052).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33386).
5. SHALL contain exactly one [1..1] id (CONF:4423-32053).
6. SHALL contain exactly one [1..1] code (CONF:4423-32054).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4423-32055).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:4423-32056).
7. SHALL contain exactly one [1..1] title (CONF:4423-35951).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32058).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32059).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-32060) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-32061).  
      Note: startTime of Relevant Period - 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) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-32062).  
      Note: stopTime of Relevant Period - 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)
10. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34806) such that it  
    Note: QDM Attribute: Frequency
    1. MAY contain zero or one [0..1] period (CONF:4423-34807).
11. MAY contain zero or one [0..1] routeCode (CONF:4423-32506).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32507).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4423-33128).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4423-32497) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32503).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32498).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32504).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4423-32499).
          1. This playingManufacturedMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32500).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32520).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4423-32501).
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32502).
14. MAY contain zero or one [0..1] participation (CONF:4423-34542) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34545).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34543).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34546).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4423-34544).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34547).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34548).
15. MAY contain zero or one [0..1] participation (CONF:4423-35273) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35277).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35274).
16. MAY contain zero or one [0..1] participation (CONF:4423-35275) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35278).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35276).
17. MAY contain zero or one [0..1] participation (CONF:4423-35877) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35879).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35878).
18. MAY contain zero or one [0..1] participation (CONF:4423-35279) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35281).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35280).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-32511) 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:4423-32512).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-32513).  
       Note: QDM Attribute: Reason

Figure 45: Medication, Administered (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.45" extension="2019-05-01"/>

</templateId>

<id root="de28ff02-d2cf-436e-898a-58eb49e15b47"/>

<code code="416118004" codeSystem="2.16.840.1.113883.6.96">

<displayName value="Administration"/>

</code>

<title value="Medication, Administered"/>

<statusCode code="completed"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingManufacturedMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingManufacturedMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Medication, Discharge (V3)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01 (open)]

Table 95: Medication, Discharge (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Medication, Discharge.

A medication refers to clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. This template represents medication should be taken by or given to the patient after being discharged from an inpatient encounter

Timing: The time the discharge medication list on the discharge instruction form is authored.

Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.  
Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time.

Table 96: Medication, Discharge (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32521](#C_4423-32521) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-32522](#C_4423-32522) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-33438](#C_4423-33438) |  |
| templateId | 1..1 | SHALL |  | [4423-32523](#C_4423-32523) |  |
| item | 1..1 | SHALL |  | [4423-32524](#C_4423-32524) |  |
| @root | 1..1 | SHALL |  | [4423-32525](#C_4423-32525) | 2.16.840.1.113883.10.20.28.4.48 |
| @extension | 1..1 | SHALL |  | [4423-33439](#C_4423-33439) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32526](#C_4423-32526) |  |
| code | 1..1 | SHALL |  | [4423-32527](#C_4423-32527) |  |
| @code | 1..1 | SHALL |  | [4423-32528](#C_4423-32528) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 10183-2 |
| @codeSystem | 1..1 | SHALL |  | [4423-32529](#C_4423-32529) | 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4423-35952](#C_4423-35952) |  |
| statusCode | 1..1 | SHALL |  | [4423-32531](#C_4423-32531) |  |
| @code | 1..1 | SHALL |  | [4423-32532](#C_4423-32532) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34810](#C_4423-34810) |  |
| period | 0..1 | MAY |  | [4423-34811](#C_4423-34811) |  |
| repeatNumber | 0..1 | MAY |  | [4423-32536](#C_4423-32536) |  |
| routeCode | 0..1 | MAY |  | [4423-32537](#C_4423-32537) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32538](#C_4423-32538) |  |
| doseQuantity | 0..1 | MAY |  | [4423-34437](#C_4423-34437) |  |
| participation | 1..1 | SHALL |  | [4423-32539](#C_4423-32539) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32540](#C_4423-32540) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32541](#C_4423-32541) |  |
| @classCode | 1..1 | SHALL |  | [4423-32542](#C_4423-32542) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4423-32543](#C_4423-32543) |  |
| @classCode | 1..1 | SHALL |  | [4423-32544](#C_4423-32544) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32545](#C_4423-32545) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32546](#C_4423-32546) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32547](#C_4423-32547) |  |
| participation | 0..1 | MAY |  | [4423-34438](#C_4423-34438) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34442](#C_4423-34442) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34439](#C_4423-34439) |  |
| low | 1..1 | SHALL |  | [4423-34443](#C_4423-34443) |  |
| role | 1..1 | SHALL |  | [4423-34440](#C_4423-34440) |  |
| @classCode | 1..1 | SHALL |  | [4423-34444](#C_4423-34444) | ROL |
| id | 0..1 | MAY |  | [4423-34445](#C_4423-34445) |  |
| participation | 0..1 | MAY |  | [4423-35285](#C_4423-35285) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35289](#C_4423-35289) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35286](#C_4423-35286) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35287](#C_4423-35287) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35290](#C_4423-35290) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35288](#C_4423-35288) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35880](#C_4423-35880) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35884](#C_4423-35884) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35881](#C_4423-35881) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35291](#C_4423-35291) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35293](#C_4423-35293) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35292](#C_4423-35292) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| participation | 0..1 | MAY |  | [4423-35294](#C_4423-35294) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35298](#C_4423-35298) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35295](#C_4423-35295) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35296](#C_4423-35296) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35299](#C_4423-35299) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35297](#C_4423-35297) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35882](#C_4423-35882) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35885](#C_4423-35885) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35883](#C_4423-35883) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35300](#C_4423-35300) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35302](#C_4423-35302) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35301](#C_4423-35301) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34441](#C_4423-34441) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34446](#C_4423-34446) | REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34812](#C_4423-34812) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |
| outboundRelationship | 0..1 | MAY |  | [4423-34130](#C_4423-34130) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34131](#C_4423-34131) | RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-34132](#C_4423-34132) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-35282](#C_4423-35282) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35284](#C_4423-35284) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-35283](#C_4423-35283) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01](#E_Days_Supplied) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-32521).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32522).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-33438).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32523).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32524) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.48" (CONF:4423-32525).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33439).
5. SHALL contain exactly one [1..1] id (CONF:4423-32526).
6. SHALL contain exactly one [1..1] code (CONF:4423-32527).
   1. This code SHALL contain exactly one [1..1] @code="10183-2" Discharge Medication (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4423-32528).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CONF:4423-32529).
7. SHALL contain exactly one [1..1] title (CONF:4423-35952).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32531).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32532).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34810) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-34811).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4423-32536).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] routeCode (CONF:4423-32537).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32538).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4423-34437).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4423-32539) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32540).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32541).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32542).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4423-32543).
          1. This playingManufacturedMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32544).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32545).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4423-32546).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32547).
14. MAY contain zero or one [0..1] participation (CONF:4423-34438) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34442).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34439).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34443).  
          Note: QDM Attribute: Author dateTime (The time the discharge medication list on the discharge instruction form is authored)
    3. SHALL contain exactly one [1..1] role (CONF:4423-34440).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-34444).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34445).
15. MAY contain zero or one [0..1] participation (CONF:4423-35285) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35289).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35286).
16. MAY contain zero or one [0..1] participation (CONF:4423-35287) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35290).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35288).
17. MAY contain zero or one [0..1] participation (CONF:4423-35880) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35884).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35881).
18. MAY contain zero or one [0..1] participation (CONF:4423-35291) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35293).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35292).
19. MAY contain zero or one [0..1] participation (CONF:4423-35294) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35298).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35295).
20. MAY contain zero or one [0..1] participation (CONF:4423-35296) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35299).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35297).
21. MAY contain zero or one [0..1] participation (CONF:4423-35882) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35885).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35883).
22. MAY contain zero or one [0..1] participation (CONF:4423-35300) such that it  
    Note: QDM Attribute: Recorder
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35302).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35301).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34441) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34446).
    2. SHALL contain exactly one [1..1] [Supply](#E_Supply) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) (CONF:4423-34812).
24. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34130) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CONF:4423-34131).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-34132).
25. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35282) such that it  
    Note: QDM Attribute: daysSupplied
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35284).
    2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01) (CONF:4423-35283).

Figure 46: Medication, Discharge (V3) Example

<substanceAdministrationCriteria classCode="SBADM" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.48" extension="2019-05-01"/>

</templateId>

<id root="7c7cb827-4ff6-4585-aba3-885a89c32083"/>

<code code="10183-2" codeSystem="2.16.840.1.113883.6.1">

<displayName value="Discharge Medication"/>

</code>

<title value="Medication, Discharge"/>

<statusCode code="active" />

<participation typeCode="CSM">

<role classCode="MANU">

<playingManufacturedMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingManufacturedMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Medication, Dispensed (V3)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01 (open)]

Table 97: Medication, Dispensed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Dosage](#E_Dosage) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Medication, Dispensed.  
Medication dispensed is to give medications to a patient or patient proxy based on a prescription. Typically, in the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, medications dispensed are the closest health provider documentation of medication compliance.  
Timing: Relevant Period references the validity period, i.e., the time period for which the ordered supply is authorized by the prescription authorizing the dispensing event. Relevant dateTime references the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient’s representative. Author dateTime references the date and time the dispensing event is recorded.  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.  
Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time.

Table 98: Medication, Dispensed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32560](#C_4423-32560) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4423-32561](#C_4423-32561) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-32562](#C_4423-32562) |  |
| templateId | 1..1 | SHALL |  | [4423-32563](#C_4423-32563) |  |
| item | 1..1 | SHALL |  | [4423-32564](#C_4423-32564) |  |
| @root | 1..1 | SHALL |  | [4423-32565](#C_4423-32565) | 2.16.840.1.113883.10.20.28.4.49 |
| @extension | 1..1 | SHALL |  | [4423-33752](#C_4423-33752) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32566](#C_4423-32566) |  |
| title | 1..1 | SHALL |  | [4423-35953](#C_4423-35953) |  |
| statusCode | 1..1 | SHALL |  | [4423-32568](#C_4423-32568) |  |
| @code | 1..1 | SHALL |  | [4423-32582](#C_4423-32582) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-32569](#C_4423-32569) |  |
| low | 1..1 | SHALL |  | [4423-32570](#C_4423-32570) |  |
| high | 0..1 | MAY |  | [4423-34860](#C_4423-34860) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34856](#C_4423-34856) |  |
| period | 0..1 | MAY |  | [4423-35307](#C_4423-35307) |  |
| repeatNumber | 0..1 | MAY |  | [4423-32572](#C_4423-32572) |  |
| quantity | 0..1 | MAY |  | [4423-34858](#C_4423-34858) |  |
| participation | 1..1 | SHALL |  | [4423-32573](#C_4423-32573) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32574](#C_4423-32574) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32575](#C_4423-32575) |  |
| @classCode | 1..1 | SHALL |  | [4423-32576](#C_4423-32576) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingMaterial | 0..1 | MAY |  | [4423-32577](#C_4423-32577) |  |
| @classCode | 1..1 | SHALL |  | [4423-32578](#C_4423-32578) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32579](#C_4423-32579) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32580](#C_4423-32580) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32581](#C_4423-32581) |  |
| participation | 0..1 | MAY |  | [4423-34861](#C_4423-34861) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34864](#C_4423-34864) | AUT |
| time | 1..1 | SHALL |  | [4423-34862](#C_4423-34862) |  |
| low | 1..1 | SHALL |  | [4423-35308](#C_4423-35308) |  |
| role | 1..1 | SHALL |  | [4423-34863](#C_4423-34863) |  |
| @classCode | 1..1 | SHALL |  | [4423-35309](#C_4423-35309) | ROL |
| participation | 0..1 | MAY |  | [4423-35303](#C_4423-35303) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35313](#C_4423-35313) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35304](#C_4423-35304) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35315](#C_4423-35315) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35317](#C_4423-35317) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35316](#C_4423-35316) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35886](#C_4423-35886) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35890](#C_4423-35890) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35887](#C_4423-35887) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35318](#C_4423-35318) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35324](#C_4423-35324) | PART |
| patient | 1..1 | SHALL |  | [4423-35319](#C_4423-35319) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| participation | 0..1 | MAY |  | [4423-35320](#C_4423-35320) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35325](#C_4423-35325) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35321](#C_4423-35321) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35888](#C_4423-35888) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35891](#C_4423-35891) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35889](#C_4423-35889) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35327](#C_4423-35327) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35329](#C_4423-35329) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35328](#C_4423-35328) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| participation | 0..1 | MAY |  | [4423-35322](#C_4423-35322) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35326](#C_4423-35326) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35323](#C_4423-35323) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| outboundRelationship | 0..1 | MAY |  | [4423-34448](#C_4423-34448) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34449](#C_4423-34449) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34450](#C_4423-34450) | [Dosage (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01](#E_Dosage) |
| outboundRelationship | 0..1 | MAY |  | [4423-32589](#C_4423-32589) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32590](#C_4423-32590) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-32591](#C_4423-32591) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-35305](#C_4423-35305) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35314](#C_4423-35314) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-35306](#C_4423-35306) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01](#E_Days_Supplied) |

1. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CONF:4423-32560).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32561).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-32562).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32563).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32564) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.49" (CONF:4423-32565).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33752).
5. SHALL contain exactly one [1..1] id (CONF:4423-32566).
6. SHALL contain exactly one [1..1] title (CONF:4423-35953).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-32568).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32582).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-32569) such that it  
   Note: QDM Attribute: Relevant Period (references the validity period. i.e., the time period for which the ordered supply is authoried by the prescription authorizing the dispensing event.)
   1. SHALL contain exactly one [1..1] low (CONF:4423-32570).  
      Note: startTime of Relevant Period or QDM Attribute: Relevant dateTime (the dateTime the prescription dispensing event occurred)
   2. MAY contain zero or one [0..1] high (CONF:4423-34860).  
      Note: stopTime of Relevant Period
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34856) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-35307).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4423-32572).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] quantity (CONF:4423-34858).  
    Note: QDM Attribute: Supply
12. SHALL contain exactly one [1..1] participation (CONF:4423-32573) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32574).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32575).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32576).
       2. This role MAY contain zero or one [0..1] playingMaterial (CONF:4423-32577).
          1. The playingMaterial, if present, SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32578).
          2. The playingMaterial, if present, SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32579).
          3. The playingMaterial, if present, SHALL contain exactly one [1..1] code (CONF:4423-32580).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32581).
13. MAY contain zero or one [0..1] participation (CONF:4423-34861) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4423-34864).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34862).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-35308).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34863).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-35309).
14. MAY contain zero or one [0..1] participation (CONF:4423-35303) such that it  
    Note: QDM Attribute: Dispenser
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35313).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35304).
15. MAY contain zero or one [0..1] participation (CONF:4423-35315) such that it  
    Note: QDM Attribute: Dispenser
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35317).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35316).
16. MAY contain zero or one [0..1] participation (CONF:4423-35886) such that it  
    Note: QDM Attribute: Dispenser
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35890).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35887).
17. MAY contain zero or one [0..1] participation (CONF:4423-35318) such that it  
    Note: QDM Attribute: Dispenser
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35324).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35319).
18. MAY contain zero or one [0..1] participation (CONF:4423-35320) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35325).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35321).
19. MAY contain zero or one [0..1] participation (CONF:4423-35888) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35891).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35889).
20. MAY contain zero or one [0..1] participation (CONF:4423-35327) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35329).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35328).
21. MAY contain zero or one [0..1] participation (CONF:4423-35322) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35326).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35323).
22. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34448) such that it  
    Note: QDM Attribute: Dosage
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34449).
    2. SHALL contain exactly one [1..1] [Dosage](#E_Dosage) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01) (CONF:4423-34450).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-32589) 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:4423-32590).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-32591).
24. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35305) such that it  
    Note: QDM Attribute: daysSupplied
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35314).
    2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01) (CONF:4423-35306).

Figure 47: Medication, Dispensed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.49" extension="2019-05-01"/>

</templateId>

<id root="3c4dcf95-2b8b-4e29-bfef-40aaf2e3a80c"/>

<title value="Medication, Dispensed"/>

<statusCode code="completed"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingMaterial>

</role>

</participation>

</supplyCriteria>

Medication, Order (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01 (open)]

Table 99: Medication, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Medication, Order.  
This represents an order for a medication, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.  
Timing: The time the order is signed; author dateTime.  
Timing: The Relevant Period addresses:  
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).  
stopTime = when the medication supply provided by the medication order is expected to be completed, including all fulfillments covered by the number of refills.

Author dateTime references the date and time the medication order (prescription) is authored.  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.  
Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time.  
daysSupplied: number of days supplied.  
id: The unique identifier of a specific instance of any QDM data element for internal reference within the logic expression.

Table 100: Medication, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-30218](#C_4423-30218) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-29049](#C_4423-29049) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-31037](#C_4423-31037) |  |
| templateId | 1..1 | SHALL |  | [4423-29050](#C_4423-29050) |  |
| item | 1..1 | SHALL |  | [4423-29051](#C_4423-29051) |  |
| @root | 1..1 | SHALL |  | [4423-29052](#C_4423-29052) | 2.16.840.1.113883.10.20.28.4.51 |
| @extension | 1..1 | SHALL |  | [4423-33443](#C_4423-33443) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-30185](#C_4423-30185) |  |
| title | 1..1 | SHALL |  | [4423-35954](#C_4423-35954) |  |
| statusCode | 1..1 | SHALL |  | [4423-30227](#C_4423-30227) |  |
| @code | 1..1 | SHALL |  | [4423-30228](#C_4423-30228) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-30504](#C_4423-30504) |  |
| low | 0..1 | MAY |  | [4423-31035](#C_4423-31035) |  |
| high | 0..1 | MAY |  | [4423-34859](#C_4423-34859) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34816](#C_4423-34816) |  |
| period | 0..1 | MAY |  | [4423-34817](#C_4423-34817) |  |
| repeatNumber | 0..1 | MAY |  | [4423-31038](#C_4423-31038) |  |
| routeCode | 0..1 | MAY |  | [4423-30188](#C_4423-30188) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30231](#C_4423-30231) |  |
| doseQuantity | 0..1 | MAY |  | [4423-30224](#C_4423-30224) |  |
| participation | 1..1 | SHALL |  | [4423-29053](#C_4423-29053) |  |
| @typeCode | 1..1 | SHALL |  | [4423-29054](#C_4423-29054) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-29055](#C_4423-29055) |  |
| @classCode | 1..1 | SHALL |  | [4423-29056](#C_4423-29056) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingMaterial | 1..1 | SHALL |  | [4423-29057](#C_4423-29057) |  |
| @classCode | 1..1 | SHALL |  | [4423-29058](#C_4423-29058) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4423-29059](#C_4423-29059) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-29060](#C_4423-29060) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-30164](#C_4423-30164) |  |
| participation | 0..1 | MAY |  | [4423-33441](#C_4423-33441) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33444](#C_4423-33444) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33442](#C_4423-33442) |  |
| low | 1..1 | SHALL |  | [4423-33500](#C_4423-33500) |  |
| role | 1..1 | SHALL |  | [4423-33592](#C_4423-33592) |  |
| @classCode | 1..1 | SHALL |  | [4423-33593](#C_4423-33593) | ROL |
| participation | 0..1 | MAY |  | [4423-35330](#C_4423-35330) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35334](#C_4423-35334) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| role | 1..1 | SHALL |  | [4423-35331](#C_4423-35331) |  |
| @classCode | 1..1 | SHALL |  | [4423-35332](#C_4423-35332) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = EXLOC |
| code | 1..1 | SHALL |  | [4423-35333](#C_4423-35333) |  |
| participation | 0..1 | MAY |  | [4423-35335](#C_4423-35335) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35339](#C_4423-35339) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35336](#C_4423-35336) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35337](#C_4423-35337) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35340](#C_4423-35340) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35338](#C_4423-35338) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35892](#C_4423-35892) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35894](#C_4423-35894) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35893](#C_4423-35893) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35341](#C_4423-35341) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35343](#C_4423-35343) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35342](#C_4423-35342) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-30190](#C_4423-30190) |  |
| @typeCode | 1..1 | SHALL |  | [4423-30191](#C_4423-30191) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-30192](#C_4423-30192) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34451](#C_4423-34451) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34452](#C_4423-34452) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34818](#C_4423-34818) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |
| outboundRelationship | 0..1 | MAY |  | [4423-34895](#C_4423-34895) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34897](#C_4423-34897) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34896](#C_4423-34896) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01](#E_Days_Supplied) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-30218).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-29049).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31037).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-29050).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-29051) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.51" (CONF:4423-29052).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33443).
5. SHALL contain exactly one [1..1] id (CONF:4423-30185).
6. SHALL contain exactly one [1..1] title (CONF:4423-35954).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-30227).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-30228).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-30504) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31035).  
      Note: startTime = when the first administration of the medication is expected
   2. MAY contain zero or one [0..1] high (CONF:4423-34859).  
      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
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34816) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-34817).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4423-31038).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] routeCode (CONF:4423-30188).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30231).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4423-30224).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4423-29053) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-29054).
    2. SHALL contain exactly one [1..1] role (CONF:4423-29055).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-29056).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4423-29057).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-29058).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-29059).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4423-29060).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-30164).
14. MAY contain zero or one [0..1] participation (CONF:4423-33441) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33444).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33442).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33500).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-33592).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-33593).
15. MAY contain zero or one [0..1] participation (CONF:4423-35330) 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:4423-35334).
    2. SHALL contain exactly one [1..1] role (CONF:4423-35331).
       1. This role SHALL contain exactly one [1..1] @classCode="EXLOC" event location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35332).
       2. This role SHALL contain exactly one [1..1] code (CONF:4423-35333).  
          Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered.
16. MAY contain zero or one [0..1] participation (CONF:4423-35335) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35339).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35336).
17. MAY contain zero or one [0..1] participation (CONF:4423-35337) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35340).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35338).
18. MAY contain zero or one [0..1] participation (CONF:4423-35892) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35894).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35893).
19. MAY contain zero or one [0..1] participation (CONF:4423-35341) such that it  
    Note: QDM Attribute: Prescriber
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35343).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35342).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-30190) 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:4423-30191).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-30192).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34451) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34452).
    2. SHALL contain exactly one [1..1] [Supply](#E_Supply) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) (CONF:4423-34818).
22. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34895) such that it  
    Note: QDM Attribute: daysSupplied
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34897).
    2. SHALL contain exactly one [1..1] [Days Supplied](#E_Days_Supplied) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01) (CONF:4423-34896).

Figure 48: Medication, Order (V4) Example

<substanceAdministrationCriteria classCode="SBADM" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.51" extension="2019-05-01"/>

</templateId>

<id root="27beb8e3-7c86-48cf-b430-235b72786dea"/>

<title value="Medication, Order"/>

<statusCode code="active"/>

<participation typeCode="CSM">

<role classCode="MANU">

<playingMaterial classCode="MMAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Patient Care Experience (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01 (open)]

Table 101: Patient Care Experience (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Patient Care Experience.

Data elements that meet this criterion indicate the patient’s care experience, usually measured with a validated survey tool. The most common tool is the Consumer Assessment of Healthcare Providers and Systems.  
Timing: The time the care experience is recorded; author time

Table 102: Patient Care Experience (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32204](#C_4423-32204) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-32205](#C_4423-32205) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-35344](#C_4423-35344) |  |
| templateId | 1..1 | SHALL |  | [4423-32206](#C_4423-32206) |  |
| item | 1..1 | SHALL |  | [4423-32207](#C_4423-32207) |  |
| @root | 1..1 | SHALL |  | [4423-32208](#C_4423-32208) | 2.16.840.1.113883.10.20.28.4.52 |
| @extension | 1..1 | SHALL |  | [4423-33700](#C_4423-33700) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32209](#C_4423-32209) |  |
| code | 1..1 | SHALL |  | [4423-32210](#C_4423-32210) |  |
| @code | 1..1 | SHALL |  | [4423-32211](#C_4423-32211) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 406193000 |
| @codeSystem | 1..1 | SHALL |  | [4423-32212](#C_4423-32212) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) |
| title | 1..1 | SHALL |  | [4423-35937](#C_4423-35937) |  |
| statusCode | 1..1 | SHALL |  | [4423-32216](#C_4423-32216) |  |
| @code | 1..1 | SHALL |  | [4423-32217](#C_4423-32217) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34388](#C_4423-34388) |  |
| low | 1..1 | SHALL |  | [4423-34389](#C_4423-34389) |  |
| value | 1..1 | SHALL | CD | [4423-32214](#C_4423-32214) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32215](#C_4423-32215) |  |
| participation | 0..1 | MAY |  | [4423-35345](#C_4423-35345) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35351](#C_4423-35351) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35346](#C_4423-35346) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35347](#C_4423-35347) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35352](#C_4423-35352) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35348](#C_4423-35348) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35895](#C_4423-35895) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35897](#C_4423-35897) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35896](#C_4423-35896) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35349](#C_4423-35349) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35353](#C_4423-35353) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35350](#C_4423-35350) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-32204).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32205).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-35344).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32206).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32207) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.52" (CONF:4423-32208).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33700).
5. SHALL contain exactly one [1..1] id (CONF:4423-32209).
6. SHALL contain exactly one [1..1] code (CONF:4423-32210).
   1. This code SHALL contain exactly one [1..1] @code="406193000" Patient Satisfaction (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4423-32211).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4423-32212).
7. SHALL contain exactly one [1..1] title (CONF:4423-35937).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32216).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32217).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34388) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4423-34389).  
      Note: QDM Attribute: Author dateTime (The time the care experience is recorded)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-32214).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32215).
11. MAY contain zero or one [0..1] participation (CONF:4423-35345).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35351).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35346).
12. MAY contain zero or one [0..1] participation (CONF:4423-35347).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35352).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35348).
13. MAY contain zero or one [0..1] participation (CONF:4423-35895).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35897).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35896).
14. MAY contain zero or one [0..1] participation (CONF:4423-35349).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35353).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35350).

Figure 49: Patient Care Experience (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.52" extension="2019-05-01"/>

</templateId>

<id root="5d852a88-4e5f-4a13-b29f-6798ad42d192"/>

<code code="406193000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Patient Satisfaction"/>

</code>

<title value="Patient Care Experience"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Patient Characteristic (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01 (open)]

Table 103: Patient Characteristic (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic.

Timing: The time the characteristic is authored.

Table 104: Patient Characteristic (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-34924](#C_3346-34924) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-34925](#C_3346-34925) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3346-34926](#C_3346-34926) |  |
| templateId | 1..1 | SHALL |  | [3346-34919](#C_3346-34919) |  |
| item | 1..1 | SHALL |  | [3346-34920](#C_3346-34920) |  |
| @root | 1..1 | SHALL |  | [3346-34922](#C_3346-34922) | 2.16.840.1.113883.10.20.28.4.53 |
| @extension | 1..1 | SHALL |  | [3346-34923](#C_3346-34923) | 2017-08-01 |
| id | 1..1 | SHALL |  | [3346-34927](#C_3346-34927) |  |
| code | 1..1 | SHALL |  | [3346-34921](#C_3346-34921) |  |
| @valueSet | 0..1 | SHOULD |  | [3346-34454](#C_3346-34454) |  |
| title | 1..1 | SHALL |  | [3346-34929](#C_3346-34929) |  |
| statusCode | 1..1 | SHALL |  | [3346-31613](#C_3346-31613) |  |
| @code | 1..1 | SHALL |  | [3346-31614](#C_3346-31614) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3346-31615](#C_3346-31615) |  |
| low | 1..1 | SHALL |  | [3346-31616](#C_3346-31616) |  |
| value | 0..1 | MAY |  | [3346-34928](#C_3346-34928) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-34924).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3346-34925).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3346-34926).
4. SHALL contain exactly one [1..1] templateId (CONF:3346-34919).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-34920) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.53" (CONF:3346-34922).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34923).
5. SHALL contain exactly one [1..1] id (CONF:3346-34927).  
   Note: QDM Attribute: id
6. SHALL contain exactly one [1..1] code (CONF:3346-34921).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:3346-34454).
7. SHALL contain exactly one [1..1] title (CONF:3346-34929).
8. SHALL contain exactly one [1..1] statusCode (CONF:3346-31613).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3346-31614).
9. MAY contain zero or one [0..1] effectiveTime (CONF:3346-31615) such that it
   1. SHALL contain exactly one [1..1] low (CONF:3346-31616).  
      Note: QDM Attribute: Author dateTime (The time the characteristic is authored)
10. MAY contain zero or one [0..1] value (CONF:3346-34928).

Figure 50: Patient Characteristic (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.53" extension="2017-08-01"/>

</templateId>

<id root="35cf9fd6-0d3d-4f86-91bf-a87fbf5ba8ef"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<statusCode code="completed"/>

</observationCriteria>

Patient Characteristic Birth Date

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01 (open)]

Table 105: Patient Characteristic Birth Date Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic Birth Date.

Timing: The Patient Characteristic, Birthdate is a single point in time representing the date and time of birth. It does not have a start and stop time.

Table 106: Patient Characteristic Birth Date Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31550](#C_3335-31550) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31551](#C_3335-31551) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34706](#C_3335-34706) |  |
| templateId | 1..1 | SHALL |  | [3335-31552](#C_3335-31552) |  |
| item | 1..1 | SHALL |  | [3335-31553](#C_3335-31553) |  |
| @root | 1..1 | SHALL |  | [3335-31554](#C_3335-31554) | 2.16.840.1.113883.10.20.28.4.54 |
| @extension | 1..1 | SHALL |  | [3335-33650](#C_3335-33650) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31555](#C_3335-31555) |  |
| code | 1..1 | SHALL |  | [3335-31556](#C_3335-31556) |  |
| @code | 1..1 | SHALL |  | [3335-31557](#C_3335-31557) | 21112-8 |
| @codeSystem | 1..1 | SHALL |  | [3335-31558](#C_3335-31558) | 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [3335-34722](#C_3335-34722) |  |
| statusCode | 1..1 | SHALL |  | [3335-31583](#C_3335-31583) |  |
| @code | 1..1 | SHALL |  | [3335-31584](#C_3335-31584) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3335-31562](#C_3335-31562) |  |
| low | 1..1 | SHALL |  | [3335-31563](#C_3335-31563) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31550).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31551).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34706).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31552).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31553) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.54" (CONF:3335-31554).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33650).
5. SHALL contain exactly one [1..1] id (CONF:3335-31555).
6. SHALL contain exactly one [1..1] code (CONF:3335-31556).
   1. This code SHALL contain exactly one [1..1] @code="21112-8" Birth Date (CONF:3335-31557).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CONF:3335-31558).
7. SHALL contain exactly one [1..1] title (CONF:3335-34722).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31583).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31584).
9. MAY contain zero or one [0..1] effectiveTime (CONF:3335-31562) such that it
   1. SHALL contain exactly one [1..1] low (CONF:3335-31563).  
      Note: QDM Attribute: Birth dateTime (A single point in time representing the date and time of birth)

Figure 51: Patient Characteristic Birth Date Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.54" extension="2017-05-01"/>

</templateId>

<id root="b591e825-d308-4f9e-9798-098bbd880975"/>

<code code="21112-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Birth Date"/>

</code>

<title value="Patient Characteristic Birth Date"/>

<statusCode code="completed"/>

</observationCriteria>

Patient Characteristic Clinical Trial Participant

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01 (open)]

Table 107: Patient Characteristic Clinical Trial Participant Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional) |

This template represents the QDM data type: Patient Characteristic Clinical Trial Participant.

This template represents that a patient is a participant in a clinical trial.  
Timing: The Relevant Period addresses: startTime – The time the clinical trial began; stopTime – The time the clinical trial ended.

Table 108: Patient Characteristic Clinical Trial Participant Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31565](#C_3335-31565) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31566](#C_3335-31566) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34705](#C_3335-34705) |  |
| templateId | 1..1 | SHALL |  | [3335-31567](#C_3335-31567) |  |
| item | 1..1 | SHALL |  | [3335-31568](#C_3335-31568) |  |
| @root | 1..1 | SHALL |  | [3335-31569](#C_3335-31569) | 2.16.840.1.113883.10.20.28.4.6 |
| @extension | 1..1 | SHALL |  | [3335-33706](#C_3335-33706) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31570](#C_3335-31570) |  |
| code | 1..1 | SHALL |  | [3335-31571](#C_3335-31571) |  |
| @code | 1..1 | SHALL |  | [3335-31572](#C_3335-31572) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3335-31573](#C_3335-31573) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| title | 1..1 | SHALL |  | [3335-34723](#C_3335-34723) |  |
| statusCode | 1..1 | SHALL |  | [3335-31575](#C_3335-31575) |  |
| @code | 1..1 | SHALL |  | [3335-31576](#C_3335-31576) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3335-31577](#C_3335-31577) |  |
| low | 0..1 | MAY |  | [3335-31578](#C_3335-31578) |  |
| high | 0..1 | MAY |  | [3335-31579](#C_3335-31579) |  |
| value | 1..1 | SHALL | CD | [3335-31580](#C_3335-31580) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-31739](#C_3335-31739) |  |
| outboundRelationship | 0..1 | MAY |  | [3335-31620](#C_3335-31620) |  |
| @typeCode | 1..1 | SHALL |  | [3335-31621](#C_3335-31621) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [3335-31622](#C_3335-31622) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31565).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-31566).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34705).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31567).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31568) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.6" (CONF:3335-31569).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33706).
5. SHALL contain exactly one [1..1] id (CONF:3335-31570).
6. SHALL contain exactly one [1..1] code (CONF:3335-31571).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3335-31572).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3335-31573).
7. SHALL contain exactly one [1..1] title (CONF:3335-34723).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31575).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31576).
9. MAY contain zero or one [0..1] effectiveTime (CONF:3335-31577) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:3335-31578).  
      Note: startTime (The time the clinical trial began)
   2. MAY contain zero or one [0..1] high (CONF:3335-31579).  
      Note: stopTime (The time the clinical trial ended)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-31580).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-31739).
11. MAY contain zero or one [0..1] outboundRelationship (CONF:3335-31620) 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:3335-31621).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:3335-31622).

Figure 52: Patient Characteristic Clinical Trial Participant Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.6" extension="2017-05-01"/>

</templateId>

<id root="c881c7cd-5ecf-4060-93c7-fbc8d1ab4500"/>

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

<displayName value="Assertion"/>

</code>

<title value="Patient Characteristic Clinical Trial Participant"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Patient Characteristic Ethnicity

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01 (open)]

Table 109: Patient Characteristic Ethnicity Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic Ethnicity.

This template represents a patient's ethnicity.

Table 110: Patient Characteristic Ethnicity Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-28168](#C_3335-28168) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3335-28169](#C_3335-28169) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34704](#C_3335-34704) |  |
| templateId | 1..1 | SHALL |  | [3335-28171](#C_3335-28171) |  |
| item | 1..1 | SHALL |  | [3335-28172](#C_3335-28172) |  |
| @root | 1..1 | SHALL |  | [3335-28173](#C_3335-28173) | 2.16.840.1.113883.10.20.28.4.56 |
| @extension | 1..1 | SHALL |  | [3335-34654](#C_3335-34654) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-34714](#C_3335-34714) |  |
| code | 1..1 | SHALL |  | [3335-28174](#C_3335-28174) |  |
| @code | 1..1 | SHALL |  | [3335-28175](#C_3335-28175) | 54133-4 |
| @codeSystem | 1..1 | SHALL |  | [3335-28176](#C_3335-28176) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [3335-34724](#C_3335-34724) |  |
| statusCode | 1..1 | SHALL |  | [3335-31180](#C_3335-31180) |  |
| @code | 1..1 | SHALL |  | [3335-31181](#C_3335-31181) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3335-28180](#C_3335-28180) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-31182](#C_3335-31182) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3335-28168).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-28169).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34704).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-28171).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-28172) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.56" (CONF:3335-28173).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34654).
5. SHALL contain exactly one [1..1] id (CONF:3335-34714).
6. SHALL contain exactly one [1..1] code (CONF:3335-28174).
   1. This code SHALL contain exactly one [1..1] @code="54133-4" Ethnicity (CONF:3335-28175).
   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:3335-28176).
7. SHALL contain exactly one [1..1] title (CONF:3335-34724).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31180).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31181).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-28180).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-31182).

Figure 53: Patient Characteristic Ethnicity Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.56" extension="2017-05-01"/>

</templateId>

<id root="a719b01b-55a7-43e9-93bb-40e765affd7b"/>

<code code="54133-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Ethnicity"/>

</code>

<title value="Patient Characteristic Ethnicity"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Patient Characteristic Expired

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01 (open)]

Table 111: Patient Characteristic Expired Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Cause](#E_Cause) (optional) |

This template represents the QDM data type: Patient Characteristic Expired.

Timing: The Patient Characteristic, Expired is a single point in time representing the date and time of death. It does not have a start and stop time.

Table 112: Patient Characteristic Expired Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31585](#C_3335-31585) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31586](#C_3335-31586) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34709](#C_3335-34709) |  |
| templateId | 1..1 | SHALL |  | [3335-31587](#C_3335-31587) |  |
| item | 1..1 | SHALL |  | [3335-31588](#C_3335-31588) |  |
| @root | 1..1 | SHALL |  | [3335-33141](#C_3335-33141) | 2.16.840.1.113883.10.20.28.4.57 |
| @extension | 1..1 | SHALL |  | [3335-33381](#C_3335-33381) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31590](#C_3335-31590) |  |
| code | 1..1 | SHALL |  | [3335-31591](#C_3335-31591) |  |
| @code | 1..1 | SHALL |  | [3335-31592](#C_3335-31592) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3335-31593](#C_3335-31593) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [3335-34721](#C_3335-34721) |  |
| statusCode | 1..1 | SHALL |  | [3335-31595](#C_3335-31595) |  |
| @code | 1..1 | SHALL |  | [3335-31596](#C_3335-31596) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3335-31597](#C_3335-31597) |  |
| low | 1..1 | SHALL |  | [3335-31623](#C_3335-31623) |  |
| value | 1..1 | SHALL | CD | [3335-31600](#C_3335-31600) |  |
| @code | 1..1 | SHALL |  | [3335-33429](#C_3335-33429) | 419099009 |
| @codeSystem | 1..1 | SHALL |  | [3335-33430](#C_3335-33430) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| outboundRelationship | 0..1 | MAY |  | [3335-33450](#C_3335-33450) |  |
| @typeCode | 1..1 | SHALL |  | [3335-33451](#C_3335-33451) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| @inversionInd | 1..1 | SHALL |  | [3335-33676](#C_3335-33676) | true |
| observationCriteria | 1..1 | SHALL |  | [3335-33452](#C_3335-33452) | [Cause (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01](#E_Cause) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31585).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-31586).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34709).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31587).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31588) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.57" (CONF:3335-33141).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33381).
5. SHALL contain exactly one [1..1] id (CONF:3335-31590).
6. SHALL contain exactly one [1..1] code (CONF:3335-31591).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3335-31592).
   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:3335-31593).
7. SHALL contain exactly one [1..1] title (CONF:3335-34721).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31595).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31596).
9. MAY contain zero or one [0..1] effectiveTime (CONF:3335-31597) such that it
   1. SHALL contain exactly one [1..1] low (CONF:3335-31623).  
      Note: QDM Attribute: Expiration dateTime (A single point in time representing the date and time of death)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-31600).
    1. This value SHALL contain exactly one [1..1] @code="419099009" Dead (CONF:3335-33429).
    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:3335-33430).
11. MAY contain zero or one [0..1] outboundRelationship (CONF:3335-33450) such that it  
    Note: QDM Attribute: Cause
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" Cause (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3335-33451).
    2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3335-33676).
    3. SHALL contain exactly one [1..1] [Cause](#E_Cause) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01) (CONF:3335-33452).

Figure 54: Patient Characteristic Expired Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.57" extension="2017-05-01"/>

</templateId>

<id root="6b9cb746-991a-45b1-a0ea-e511e0a38a41"/>

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

<displayName value="Assertion"/>

</code>

<title value="Patient Characteristic Expired"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Dead"/>

</value>

</observationCriteria>

Patient Characteristic Payer

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01 (open)]

Table 113: Patient Characteristic Payer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic Payer.

This template represents a patient's payment source.  
Timing: The Relevant Period addresses: startTime – The first day of insurance coverage with the referenced payer; stopTime – The last day of insurance coverage with the referenced payer.

Table 114: Patient Characteristic Payer Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31627](#C_3335-31627) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31628](#C_3335-31628) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34710](#C_3335-34710) |  |
| templateId | 1..1 | SHALL |  | [3335-31629](#C_3335-31629) |  |
| item | 1..1 | SHALL |  | [3335-31630](#C_3335-31630) |  |
| @root | 1..1 | SHALL |  | [3335-31631](#C_3335-31631) | 2.16.840.1.113883.10.20.28.4.58 |
| @extension | 1..1 | SHALL |  | [3335-34457](#C_3335-34457) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31632](#C_3335-31632) |  |
| code | 1..1 | SHALL |  | [3335-31633](#C_3335-31633) |  |
| @code | 1..1 | SHALL |  | [3335-31634](#C_3335-31634) | 48768-6 |
| @codeSystem | 1..1 | SHALL |  | [3335-31635](#C_3335-31635) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [3335-31636](#C_3335-31636) |  |
| statusCode | 1..1 | SHALL |  | [3335-31637](#C_3335-31637) |  |
| @code | 1..1 | SHALL |  | [3335-31643](#C_3335-31643) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3335-31638](#C_3335-31638) |  |
| low | 0..1 | MAY |  | [3335-31641](#C_3335-31641) |  |
| high | 0..1 | MAY |  | [3335-31642](#C_3335-31642) |  |
| value | 1..1 | SHALL | CD | [3335-31639](#C_3335-31639) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-31640](#C_3335-31640) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31627).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-31628).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34710).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31629).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31630) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.58" (CONF:3335-31631).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34457).
5. SHALL contain exactly one [1..1] id (CONF:3335-31632).
6. SHALL contain exactly one [1..1] code (CONF:3335-31633).
   1. This code SHALL contain exactly one [1..1] @code="48768-6" Payment Source (CONF:3335-31634).
   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:3335-31635).
7. SHALL contain exactly one [1..1] title (CONF:3335-31636).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31637).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31643).
9. MAY contain zero or one [0..1] effectiveTime (CONF:3335-31638) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:3335-31641).  
      Note: startTime (The first day of insurance coverage with the referenced payer)
   2. MAY contain zero or one [0..1] high (CONF:3335-31642).  
      Note: stopTime (The last day of insurance coverage with the referenced payer)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-31639).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-31640).

Figure 55: Patient Characteristic Payer Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.58" extension="2017-05-01"/>

</templateId>

<id root="ca3b4435-8cb4-499a-8ccd-db955364764e"/>

<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Payer"/>

</code>

<title value="Patient Characteristic Payer"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Patient Characteristic Race

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01 (open)]

Table 115: Patient Characteristic Race Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic Race.

This template represents a patient's race.

Table 116: Patient Characteristic Race Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31236](#C_3335-31236) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31237](#C_3335-31237) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34711](#C_3335-34711) |  |
| templateId | 1..1 | SHALL |  | [3335-31238](#C_3335-31238) |  |
| item | 1..1 | SHALL |  | [3335-31239](#C_3335-31239) |  |
| @root | 1..1 | SHALL |  | [3335-31240](#C_3335-31240) | 2.16.840.1.113883.10.20.28.4.59 |
| @extension | 1..1 | SHALL |  | [3335-34655](#C_3335-34655) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31241](#C_3335-31241) |  |
| code | 1..1 | SHALL |  | [3335-31242](#C_3335-31242) |  |
| @code | 1..1 | SHALL |  | [3335-31243](#C_3335-31243) | 32624-9 |
| @codeSystem | 1..1 | SHALL |  | [3335-31244](#C_3335-31244) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [3335-31245](#C_3335-31245) |  |
| statusCode | 1..1 | SHALL |  | [3335-31246](#C_3335-31246) |  |
| @code | 1..1 | SHALL |  | [3335-31247](#C_3335-31247) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3335-31248](#C_3335-31248) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-31249](#C_3335-31249) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31236).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-31237).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34711).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31238).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31239) such that it
      1. SHALL contain exactly one [1..1] @root=" 2.16.840.1.113883.10.20.28.4.59" (CONF:3335-31240).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34655).
5. SHALL contain exactly one [1..1] id (CONF:3335-31241).
6. SHALL contain exactly one [1..1] code (CONF:3335-31242).
   1. This code SHALL contain exactly one [1..1] @code="32624-9" Race (CONF:3335-31243).
   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:3335-31244).
7. SHALL contain exactly one [1..1] title (CONF:3335-31245).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31246).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3335-31247).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-31248).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-31249).

Figure 56: Patient Characteristic Race Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.59" extension="2017-05-01"/>

</templateId>

<id root="5cabdd9d-cd97-47a2-8f15-a4a17c941d8c"/>

<code code="32624-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Race"/>

</code>

<title value="Patient Characteristic Race"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Patient Characteristic Sex

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01 (open)]

Table 117: Patient Characteristic Sex Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Patient Characteristic Sex.

This template represents a patient's sex.

Table 118: Patient Characteristic Sex Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-31282](#C_3335-31282) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-31283](#C_3335-31283) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [3335-34712](#C_3335-34712) |  |
| templateId | 1..1 | SHALL |  | [3335-31284](#C_3335-31284) |  |
| item | 1..1 | SHALL |  | [3335-31285](#C_3335-31285) |  |
| @root | 1..1 | SHALL |  | [3335-31286](#C_3335-31286) | 2.16.840.1.113883.10.20.28.4.55 |
| @extension | 1..1 | SHALL |  | [3335-33382](#C_3335-33382) | 2017-05-01 |
| id | 1..1 | SHALL |  | [3335-31287](#C_3335-31287) |  |
| code | 1..1 | SHALL |  | [3335-31288](#C_3335-31288) |  |
| @code | 1..1 | SHALL |  | [3335-31289](#C_3335-31289) | 263495000 |
| @codeSystem | 1..1 | SHALL |  | [3335-31290](#C_3335-31290) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [3335-31291](#C_3335-31291) |  |
| statusCode | 1..1 | SHALL |  | [3335-31292](#C_3335-31292) |  |
| @code | 1..1 | SHALL |  | [3335-33142](#C_3335-33142) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = completed |
| value | 1..1 | SHALL | CD | [3335-31293](#C_3335-31293) |  |
| @valueSet | 1..1 | SHOULD |  | [3335-31294](#C_3335-31294) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-31282).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-31283).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34712).
4. SHALL contain exactly one [1..1] templateId (CONF:3335-31284).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-31285) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.55" (CONF:3335-31286).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33382).
5. SHALL contain exactly one [1..1] id (CONF:3335-31287).
6. SHALL contain exactly one [1..1] code (CONF:3335-31288).
   1. This code SHALL contain exactly one [1..1] @code="263495000" Gender (CONF:3335-31289).
   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:3335-31290).
7. SHALL contain exactly one [1..1] title (CONF:3335-31291).
8. SHALL contain exactly one [1..1] statusCode (CONF:3335-31292).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3335-33142).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-31293).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain exactly one [1..1] @valueSet (CONF:3335-31294).

Figure 57: Patient Characteristic Sex Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.55" extension="2017-05-01"/>

</templateId>

<id root="4d3b1027-eb4b-4081-9093-e056acfd12ba"/>

<code code="263495000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Gender"/>

</code>

<title value="Patient Characteristic Sex"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Physical Exam, Order (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01 (open)]

Table 119: Physical Exam, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional) |

This template represents the QDM data type: Physical Exam, Order.  
Physical Exam represents the evaluation of the patient's body to determine its state of health. The techniques of inspection include palpation (feeling with the hands or fingers), percussion (tapping with the fingers), auscultation (listening), visual inspection, and smell. Measurements may include vital signs (blood pressure, pulse, respiration) as well as other clinical measures (such as expiratory flow rate and size of lesion). Physical exam includes psychiatric examinations.  
Timing: The time the order is signed; author datetime.

Table 120: Physical Exam, Order (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31405](#C_4423-31405) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-31406](#C_4423-31406) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-31407](#C_4423-31407) |  |
| templateId | 1..1 | SHALL |  | [4423-31408](#C_4423-31408) |  |
| item | 1..1 | SHALL |  | [4423-31409](#C_4423-31409) |  |
| @root | 1..1 | SHALL |  | [4423-31410](#C_4423-31410) | 2.16.840.1.113883.10.20.28.4.61 |
| @extension | 1..1 | SHALL |  | [4423-33437](#C_4423-33437) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31411](#C_4423-31411) |  |
| code | 1..1 | SHALL |  | [4423-31412](#C_4423-31412) |  |
| @code | 1..1 | SHALL |  | [4423-31434](#C_4423-31434) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4423-31435](#C_4423-31435) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-31413](#C_4423-31413) |  |
| statusCode | 1..1 | SHALL |  | [4423-31414](#C_4423-31414) |  |
| @code | 1..1 | SHALL |  | [4423-31415](#C_4423-31415) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| value | 1..1 | SHALL | CD | [4423-31437](#C_4423-31437) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31438](#C_4423-31438) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-31422](#C_4423-31422) |  |
| item | 0..1 | SHOULD |  | [4423-31423](#C_4423-31423) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31424](#C_4423-31424) |  |
| participation | 0..1 | MAY |  | [4423-33501](#C_4423-33501) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33503](#C_4423-33503) | AUT |
| time | 1..1 | SHALL |  | [4423-33502](#C_4423-33502) |  |
| low | 1..1 | SHALL |  | [4423-33504](#C_4423-33504) |  |
| role | 1..1 | SHALL |  | [4423-33595](#C_4423-33595) |  |
| @classCode | 1..1 | SHALL |  | [4423-33596](#C_4423-33596) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33597](#C_4423-33597) |  |
| participation | 0..1 | MAY |  | [4423-35373](#C_4423-35373) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35379](#C_4423-35379) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35374](#C_4423-35374) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35377](#C_4423-35377) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35381](#C_4423-35381) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35378](#C_4423-35378) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35898](#C_4423-35898) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35899](#C_4423-35899) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| participation | 0..1 | MAY |  | [4423-35375](#C_4423-35375) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35380](#C_4423-35380) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35376](#C_4423-35376) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31431](#C_4423-31431) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31432](#C_4423-31432) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31433](#C_4423-31433) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-31405).
2. SHALL contain exactly one [1..1] @moodCode="RQO" request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31406).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31407).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31408).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31409) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.61" (CONF:4423-31410).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33437).
5. SHALL contain exactly one [1..1] id (CONF:4423-31411).
6. SHALL contain exactly one [1..1] code (CONF:4423-31412).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4423-31434).
   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:4423-31435).
7. SHALL contain exactly one [1..1] title (CONF:4423-31413).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31414).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31415).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-31437).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31438).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-31422).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4423-31423).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31424).
11. MAY contain zero or one [0..1] participation (CONF:4423-33501) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4423-33503).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33502).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33504).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4423-33595).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33596).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-33597).
12. MAY contain zero or one [0..1] participation (CONF:4423-35373) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35379).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35374).
13. MAY contain zero or one [0..1] participation (CONF:4423-35377) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35381).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35378).
14. MAY contain zero or one [0..1] participation (CONF:4423-35898) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35899).
15. MAY contain zero or one [0..1] participation (CONF:4423-35375) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35380).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35376).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31431) 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:4423-31432).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31433).

Figure 58: Physical Exam, Order (V3) Example

<observationCriteria classCode="OBS" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.61" extension="2019-05-01"/>

</templateId>

<id root="ae06f4b8-668d-45a9-acd4-28cff4ef6d45"/>

<code code="5880005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Physical Examination"/>

</code>

<title value="Physical Exam Order"/>

<statusCode code="active"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Physical Exam, Performed (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01 (open)]

Table 121: Physical Exam, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Physical Exam, Performed.  
This represents that a physical exam has been completed.  
Timing: Relevant dateTime references the time the physical exam is performed if it occurs at a single point in time.  
Relevant Period references a start and stop time for physical exam procedure that occurs over a time interval: startTime – The time the physical examination activity begins; stopTime – The time the physical examination activity ends.  
Author dateTime references the time the physical exam event was recorded and applies only when the record has no reference to the time the physical exam event was performed and only the recorded time is available.  
QDM Attribute: Result is represented using the Result (V2) template

Table 122: Physical Exam, Performed (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31251](#C_4423-31251) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-31252](#C_4423-31252) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-31253](#C_4423-31253) |  |
| templateId | 1..1 | SHALL |  | [4423-31254](#C_4423-31254) |  |
| item | 1..1 | SHALL |  | [4423-31255](#C_4423-31255) |  |
| @root | 1..1 | SHALL |  | [4423-31256](#C_4423-31256) | 2.16.840.1.113883.10.20.28.4.62 |
| @extension | 1..1 | SHALL |  | [4423-33428](#C_4423-33428) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31257](#C_4423-31257) |  |
| code | 1..1 | SHALL |  | [4423-31258](#C_4423-31258) |  |
| @code | 1..1 | SHALL |  | [4423-31439](#C_4423-31439) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4423-31440](#C_4423-31440) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-31260](#C_4423-31260) |  |
| statusCode | 1..1 | SHALL |  | [4423-31261](#C_4423-31261) |  |
| @code | 1..1 | SHALL |  | [4423-31262](#C_4423-31262) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31263](#C_4423-31263) |  |
| low | 0..1 | MAY |  | [4423-31264](#C_4423-31264) |  |
| high | 0..1 | MAY |  | [4423-31265](#C_4423-31265) |  |
| value | 1..1 | SHALL | CD | [4423-31441](#C_4423-31441) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31442](#C_4423-31442) |  |
| methodCode | 0..1 | MAY |  | [4423-31267](#C_4423-31267) |  |
| item | 1..1 | SHALL |  | [4423-31268](#C_4423-31268) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31269](#C_4423-31269) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-31270](#C_4423-31270) |  |
| item | 0..1 | SHOULD |  | [4423-31271](#C_4423-31271) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31272](#C_4423-31272) |  |
| participation | 0..1 | MAY |  | [4423-34549](#C_4423-34549) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34552](#C_4423-34552) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34550](#C_4423-34550) |  |
| low | 1..1 | SHALL |  | [4423-34553](#C_4423-34553) |  |
| role | 1..1 | SHALL |  | [4423-34551](#C_4423-34551) |  |
| @classCode | 1..1 | SHALL |  | [4423-34554](#C_4423-34554) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34555](#C_4423-34555) |  |
| participation | 0..1 | MAY |  | [4423-35364](#C_4423-35364) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35370](#C_4423-35370) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35365](#C_4423-35365) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35368](#C_4423-35368) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35372](#C_4423-35372) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35369](#C_4423-35369) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35900](#C_4423-35900) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35902](#C_4423-35902) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35901](#C_4423-35901) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35366](#C_4423-35366) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35371](#C_4423-35371) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35367](#C_4423-35367) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31279](#C_4423-31279) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31280](#C_4423-31280) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-33448](#C_4423-33448) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-33614](#C_4423-33614) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33615](#C_4423-33615) | VALUE |
| observationCriteria | 1..1 | SHALL |  | [4423-33616](#C_4423-33616) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..\* | MAY |  | [4423-34621](#C_4423-34621) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34622](#C_4423-34622) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34623](#C_4423-34623) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-31251).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31252).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31253).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31254).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31255) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.62" (CONF:4423-31256).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33428).
5. SHALL contain exactly one [1..1] id (CONF:4423-31257).
6. SHALL contain exactly one [1..1] code (CONF:4423-31258).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4423-31439).
   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:4423-31440).
7. SHALL contain exactly one [1..1] title (CONF:4423-31260).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31261).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31262).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31263) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31264).  
      Note: startTime of Relevant Period (The time the physical examination activity begins) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-31265).  
      Note: stopTime of Relevant Period (The time the physical examination activity ends)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-31441).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31442).
11. MAY contain zero or one [0..1] methodCode (CONF:4423-31267).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-31268).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31269).
12. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-31270).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4423-31271).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31272).
13. MAY contain zero or one [0..1] participation (CONF:4423-34549) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34552).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34550).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34553).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34551).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34554).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34555).
14. MAY contain zero or one [0..1] participation (CONF:4423-35364) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35370).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35365).
15. MAY contain zero or one [0..1] participation (CONF:4423-35368) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35372).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35369).
16. MAY contain zero or one [0..1] participation (CONF:4423-35900) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35902).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35901).
17. MAY contain zero or one [0..1] participation (CONF:4423-35366) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35371).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35367).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31279) 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:4423-31280).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-33448).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33614) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" Has value (CONF:4423-33615).
    2. SHALL contain exactly one [1..1] [Result (V2)](#E_Result_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) (CONF:4423-33616).
20. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34621) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34622).
    2. SHALL contain exactly one [1..1] [Component](#E_Component_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01) (CONF:4423-34623).

Figure 59: Physical Exam, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.62" extension="2019-05-01"/>

</templateId>

<id root="74a0af1f-15ed-4536-854f-79a066953e44"/>

<code code="5880005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Physical Examination"/>

</code>

<title value="Physical Exam, Performed"/>

<statusCode code="completed"/>

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

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Physical Exam, Recommended (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01 (open)]

Table 123: Physical Exam, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Physical Exam, Recommended.  
This template captures a recommendation by a physician or appropriately licensed care provider for a physical exam to be performed on the patient.  
Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 124: Physical Exam, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31443](#C_4423-31443) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-31444](#C_4423-31444) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-31445](#C_4423-31445) |  |
| templateId | 1..1 | SHALL |  | [4423-31446](#C_4423-31446) |  |
| item | 1..1 | SHALL |  | [4423-31447](#C_4423-31447) |  |
| @root | 1..1 | SHALL |  | [4423-31448](#C_4423-31448) | 2.16.840.1.113883.10.20.28.4.61 |
| @extension | 1..1 | SHALL |  | [4423-33449](#C_4423-33449) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31449](#C_4423-31449) |  |
| code | 1..1 | SHALL |  | [4423-31450](#C_4423-31450) |  |
| @code | 1..1 | SHALL |  | [4423-31451](#C_4423-31451) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4423-31452](#C_4423-31452) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-31453](#C_4423-31453) |  |
| statusCode | 1..1 | SHALL |  | [4423-31454](#C_4423-31454) |  |
| @code | 1..1 | SHALL |  | [4423-31455](#C_4423-31455) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| value | 1..1 | SHALL | CD | [4423-31459](#C_4423-31459) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31460](#C_4423-31460) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-31464](#C_4423-31464) |  |
| item | 0..1 | SHOULD |  | [4423-31465](#C_4423-31465) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31466](#C_4423-31466) |  |
| participation | 0..1 | MAY |  | [4423-34458](#C_4423-34458) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34461](#C_4423-34461) | AUT |
| time | 1..1 | SHALL |  | [4423-34459](#C_4423-34459) |  |
| low | 1..1 | SHALL |  | [4423-34462](#C_4423-34462) |  |
| role | 1..1 | SHALL |  | [4423-34460](#C_4423-34460) |  |
| @classCode | 1..1 | SHALL |  | [4423-34463](#C_4423-34463) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34464](#C_4423-34464) |  |
| participation | 0..1 | MAY |  | [4423-35478](#C_4423-35478) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35482](#C_4423-35482) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35479](#C_4423-35479) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35480](#C_4423-35480) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35483](#C_4423-35483) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35481](#C_4423-35481) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35903](#C_4423-35903) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35905](#C_4423-35905) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35904](#C_4423-35904) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35484](#C_4423-35484) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35486](#C_4423-35486) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35485](#C_4423-35485) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31473](#C_4423-31473) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31474](#C_4423-31474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31475](#C_4423-31475) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-31443).
2. SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31444).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31445).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31446).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31447) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.61" (CONF:4423-31448).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33449).
5. SHALL contain exactly one [1..1] id (CONF:4423-31449).
6. SHALL contain exactly one [1..1] code (CONF:4423-31450).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4423-31451).
   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:4423-31452).
7. SHALL contain exactly one [1..1] title (CONF:4423-31453).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31454).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-31455).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-31459).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31460).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-31464).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4423-31465).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31466).
11. MAY contain zero or one [0..1] participation (CONF:4423-34458) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4423-34461).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34459).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34462).  
          Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
    3. SHALL contain exactly one [1..1] role (CONF:4423-34460).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34463).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34464).
12. MAY contain zero or one [0..1] participation (CONF:4423-35478) such that it  
    Note: QDM Attribute: Requseter
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35482).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35479).
13. MAY contain zero or one [0..1] participation (CONF:4423-35480) such that it  
    Note: QDM Attribute: Requseter
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35483).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35481).
14. MAY contain zero or one [0..1] participation (CONF:4423-35903) such that it  
    Note: QDM Attribute: Requseter
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35905).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35904).
15. MAY contain zero or one [0..1] participation (CONF:4423-35484) such that it  
    Note: QDM Attribute: Requseter
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35486).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35485).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31473) 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:4423-31474).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31475).

Figure 60: Physical Exam, Recommended (V3) Example

<observationCriteria classCode="OBS" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.63" extension="2019-05-01"/>

</templateId>

<id root="2ba56315-4f6f-4141-be6c-0248d8dfdbfc"/>

<code code="5880005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Physical Examination"/>

</code>

<title value="Physical Exam Recommended"/>

<statusCode code="active"/>

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

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Present On Admission Indicator

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01 (open)]

Table 125: Present On Admission Indicator Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter Diagnosis](#E_Encounter_Diagnosis_) (optional) |  |

This template represents the QDM attribute: Present On Admission (POA) Indicator

The full set of allowable values in the UB-04 standard include:  
Y - Diagnosis was present at the time of admission  
N - Diagnosis was not present at the time of admission  
U - Documentation insufficient to determine if condition was present at the time of inpatient admission  
W - Clinically undetermined. Provider unable to clinically determine whether the condition was present at the time of inpatient admission  
1 – Unreported/not used (exempt from POA reporting – equivalent to a blank on the UB-04 form)

Table 126: Present On Admission Indicator Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-31602](#C_4423-31602) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-31603](#C_4423-31603) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-31604](#C_4423-31604) |  |
| templateId | 1..1 | SHALL |  | [4423-31605](#C_4423-31605) |  |
| item | 1..1 | SHALL |  | [4423-31606](#C_4423-31606) |  |
| @root | 1..1 | SHALL |  | [4423-31607](#C_4423-31607) | 2.16.840.1.113883.10.20.28.4.140 |
| @extension | 1..1 | SHALL |  | [4423-34456](#C_4423-34456) | 2019-05-01 |
| code | 1..1 | SHALL |  | [4423-31609](#C_4423-31609) |  |
| @code | 1..1 | SHALL |  | [4423-35156](#C_4423-35156) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 78026-2 |
| value | 1..1 | SHALL | CD | [4423-34455](#C_4423-34455) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-31602).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31603).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-31604).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31605).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31606) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.140" (CONF:4423-31607).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34456).
5. SHALL contain exactly one [1..1] code (CONF:4423-31609).
   1. This code SHALL contain exactly one [1..1] @code="78026-2" diagnosis present on admission (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4423-35156).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34455).  
   Note: The value could be selected from the standard codes for POA defined in UB-04

Figure 61: Present On Admission Indicator Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.140" extension="2019-05-01"/>

</templateId>

<code code="78026-2" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Procedure, Order (V4)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01 (open)]

Table 127: Procedure, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Rank](#E_Rank) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Procedure, Order.  
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 or providing treatment.  
This template represents an order for a procedure.  
Timing: The time the order is signed; author datetime.

Table 128: Procedure, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33158](#C_4423-33158) | PROC |
| @moodCode | 1..1 | SHALL |  | [4423-31120](#C_4423-31120) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-31121](#C_4423-31121) |  |
| templateId | 1..1 | SHALL |  | [4423-31122](#C_4423-31122) |  |
| item | 1..1 | SHALL |  | [4423-31123](#C_4423-31123) |  |
| @root | 1..1 | SHALL |  | [4423-31124](#C_4423-31124) | 2.16.840.1.113883.10.20.28.4.66 |
| @extension | 1..1 | SHALL |  | [4423-33422](#C_4423-33422) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31125](#C_4423-31125) |  |
| code | 1..1 | SHALL |  | [4423-31126](#C_4423-31126) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31127](#C_4423-31127) |  |
| title | 1..1 | SHALL |  | [4423-31128](#C_4423-31128) |  |
| statusCode | 1..1 | SHALL |  | [4423-31129](#C_4423-31129) |  |
| @code | 1..1 | SHALL |  | [4423-33147](#C_4423-33147) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active |
| priorityCode | 0..1 | MAY |  | [4423-35463](#C_4423-35463) |  |
| item | 1..1 | SHALL |  | [4423-35464](#C_4423-35464) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35471](#C_4423-35471) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-33420](#C_4423-33420) |  |
| item | 1..1 | SHALL |  | [4423-33421](#C_4423-33421) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33424](#C_4423-33424) |  |
| participation | 0..1 | MAY |  | [4423-33506](#C_4423-33506) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33508](#C_4423-33508) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33507](#C_4423-33507) |  |
| low | 1..1 | SHALL |  | [4423-33509](#C_4423-33509) |  |
| role | 1..1 | SHALL |  | [4423-33598](#C_4423-33598) |  |
| @classCode | 1..1 | SHALL |  | [4423-33599](#C_4423-33599) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33600](#C_4423-33600) |  |
| participation | 0..1 | MAY |  | [4423-35465](#C_4423-35465) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35472](#C_4423-35472) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35466](#C_4423-35466) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35467](#C_4423-35467) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35473](#C_4423-35473) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35468](#C_4423-35468) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35906](#C_4423-35906) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35908](#C_4423-35908) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35907](#C_4423-35907) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35475](#C_4423-35475) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35477](#C_4423-35477) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35476](#C_4423-35476) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-35764](#C_4423-35764) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35766](#C_4423-35766) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35765](#C_4423-35765) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |
| outboundRelationship | 0..1 | MAY |  | [4423-31143](#C_4423-31143) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33148](#C_4423-33148) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31144](#C_4423-31144) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CONF:4423-33158).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31120).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31121).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31122).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31123) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.66" (CONF:4423-31124).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33422).
5. SHALL contain exactly one [1..1] id (CONF:4423-31125).
6. SHALL contain exactly one [1..1] code (CONF:4423-31126).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31127).
7. SHALL contain exactly one [1..1] title (CONF:4423-31128).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31129).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-33147).
9. MAY contain zero or one [0..1] priorityCode (CONF:4423-35463).  
   Note: QDM Attribute: Priority
   1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35464).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35471).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-33420).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-33421).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33424).
11. MAY contain zero or one [0..1] participation (CONF:4423-33506) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33508).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33507).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33509).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4423-33598).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33599).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-33600).
12. MAY contain zero or one [0..1] participation (CONF:4423-35465) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35472).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35466).
13. MAY contain zero or one [0..1] participation (CONF:4423-35467) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35473).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35468).
14. MAY contain zero or one [0..1] participation (CONF:4423-35906) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35908).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35907).
15. MAY contain zero or one [0..1] participation (CONF:4423-35475) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35477).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35476).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35764) such that it  
    Note: QDM Attribute: Rank
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4423-35766).
    2. SHALL contain exactly one [1..1] [Rank](#E_Rank) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01) (CONF:4423-35765).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31143) 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:4423-33148).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31144).  
       Note: QDM Attribute: Reason

Figure 62: Procedure, Order (V4) Example

<procedureCriteria classCode="PROC" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.66" extension="2019-05-01"/>

</templateId>

<id root="7d559e0a-4e01-4f52-b87b-a3342705e2f2"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Procedure, Order"/>

<statusCode code="active"/>

</procedureCriteria>

Procedure, Performed (V4)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01 (open)]

Table 129: Procedure, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Incision Datetime](#E_Incision_Datetime_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Rank](#E_Rank) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Procedure, Performed.  
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 or providing treatment.  
This template represents a procedure that has been performed.

Timing: Relevant dateTime references the time the procedure is performed when the procedure occurs at a single point in time. Relevant Period references a start and stop time for a procedure that occurs over a time interval: StartTime = the time the procedure begins; StopTime = the time the procedure is completed. Author dateTime references the time the procedure was recorded and applies only when the record has no reference to the time the procedure was performed and only the recorded time is available.

Table 130: Procedure, Performed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33149](#C_4423-33149) | PROC |
| @moodCode | 1..1 | SHALL |  | [4423-31336](#C_4423-31336) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-31337](#C_4423-31337) |  |
| templateId | 1..1 | SHALL |  | [4423-31338](#C_4423-31338) |  |
| item | 1..1 | SHALL |  | [4423-31339](#C_4423-31339) |  |
| @root | 1..1 | SHALL |  | [4423-31340](#C_4423-31340) | 2.16.840.1.113883.10.20.28.4.67 |
| @extension | 1..1 | SHALL |  | [4423-33398](#C_4423-33398) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31341](#C_4423-31341) |  |
| code | 1..1 | SHALL |  | [4423-31342](#C_4423-31342) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31343](#C_4423-31343) |  |
| title | 1..1 | SHALL |  | [4423-31344](#C_4423-31344) |  |
| statusCode | 1..1 | SHALL |  | [4423-31345](#C_4423-31345) |  |
| @code | 1..1 | SHALL |  | [4423-33150](#C_4423-33150) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-31346](#C_4423-31346) |  |
| low | 0..1 | MAY |  | [4423-31347](#C_4423-31347) |  |
| high | 0..1 | MAY |  | [4423-31348](#C_4423-31348) |  |
| priorityCode | 0..1 | MAY |  | [4423-35454](#C_4423-35454) |  |
| item | 1..1 | SHALL |  | [4423-35455](#C_4423-35455) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-35460](#C_4423-35460) |  |
| methodCode | 0..1 | MAY |  | [4423-31351](#C_4423-31351) |  |
| item | 1..1 | SHALL |  | [4423-31352](#C_4423-31352) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31353](#C_4423-31353) |  |
| targetSiteCode | 0..1 | MAY |  | [4423-33401](#C_4423-33401) |  |
| item | 1..1 | SHALL |  | [4423-33402](#C_4423-33402) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33404](#C_4423-33404) |  |
| participation | 0..1 | MAY |  | [4423-34556](#C_4423-34556) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34559](#C_4423-34559) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34557](#C_4423-34557) |  |
| low | 1..1 | SHALL |  | [4423-34560](#C_4423-34560) |  |
| role | 1..1 | SHALL |  | [4423-34558](#C_4423-34558) |  |
| @classCode | 1..1 | SHALL |  | [4423-34561](#C_4423-34561) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34562](#C_4423-34562) |  |
| participation | 0..1 | MAY |  | [4423-35448](#C_4423-35448) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35452](#C_4423-35452) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35449](#C_4423-35449) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35450](#C_4423-35450) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35453](#C_4423-35453) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35451](#C_4423-35451) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35909](#C_4423-35909) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35911](#C_4423-35911) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35910](#C_4423-35910) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35456](#C_4423-35456) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35461](#C_4423-35461) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35457](#C_4423-35457) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31360](#C_4423-31360) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31366](#C_4423-31366) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31361](#C_4423-31361) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-31362](#C_4423-31362) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31367](#C_4423-31367) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| procedureCriteria | 1..1 | SHALL |  | [4423-33153](#C_4423-33153) | [Incision Datetime (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01](#E_Incision_Datetime_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-31364](#C_4423-31364) |  |
| @typeCode | 1..1 | SHALL |  | [4423-31368](#C_4423-31368) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4423-31365](#C_4423-31365) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..1 | MAY |  | [4423-33408](#C_4423-33408) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33409](#C_4423-33409) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-33410](#C_4423-33410) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..\* | MAY |  | [4423-34624](#C_4423-34624) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34625](#C_4423-34625) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34626](#C_4423-34626) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |
| outboundRelationship | 0..1 | MAY |  | [4423-35767](#C_4423-35767) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35769](#C_4423-35769) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35768](#C_4423-35768) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CONF:4423-33149).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31336).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31337).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31338) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4423-31339).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.67" (CONF:4423-31340).
      2. This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33398).
5. SHALL contain exactly one [1..1] id (CONF:4423-31341).
6. SHALL contain exactly one [1..1] code (CONF:4423-31342).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31343).
7. SHALL contain exactly one [1..1] title (CONF:4423-31344).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31345).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-33150).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-31346) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-31347).  
      Note: startTime of Relevant Period (The time the procedure begins) or QDM Attribute: Relevant dateTime (References the procedure is performed when the procedure occurs at a single point in time)
   2. MAY contain zero or one [0..1] high (CONF:4423-31348).  
      Note: stopTime of Relevant Period (The time the procedure is completed)
10. MAY contain zero or one [0..1] priorityCode (CONF:4423-35454).  
    Note: QDM Attribute: Priority
    1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35455).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35460).
11. MAY contain zero or one [0..1] methodCode (CONF:4423-31351).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-31352).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31353).
12. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-33401).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-33402).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33404).
13. MAY contain zero or one [0..1] participation (CONF:4423-34556) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34559).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34557).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34560).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34558).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34561).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34562).
14. MAY contain zero or one [0..1] participation (CONF:4423-35448) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35452).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35449).
15. MAY contain zero or one [0..1] participation (CONF:4423-35450) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35453).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35451).
16. MAY contain zero or one [0..1] participation (CONF:4423-35909) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35911).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35910).
17. MAY contain zero or one [0..1] participation (CONF:4423-35456) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35461).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35457).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31360) 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:4423-31366).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31361).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31362) such that it  
    Note: QDM Attribute: Incision dateTime
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-31367).
    2. SHALL contain exactly one [1..1] [Incision Datetime](#E_Incision_Datetime_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01) (CONF:4423-33153).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31364) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" Has value (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-31368).
    2. SHALL contain exactly one [1..1] [Result (V2)](#E_Result_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) (CONF:4423-31365).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-33408) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CONF:4423-33409).
    2. SHALL contain exactly one [1..1] [Status (V2)](#E_Status_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01) (CONF:4423-33410).
22. MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-34624) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4423-34625).
    2. SHALL contain exactly one [1..1] [Component](#E_Component_1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01) (CONF:4423-34626).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35767) such that it  
    Note: QDM Attribute: Rank
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35769).
    2. SHALL contain exactly one [1..1] [Rank](#E_Rank) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01) (CONF:4423-35768).

Figure 63: Procedure, Performed (V4) Example

<procedureCriteria classCode="PROC" moodCode="EVN">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.67" extension="2019-05-01"/>

</templateId>

<id root="6cc25a38-8781-4d79-a580-6a83d1b33575"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Procedure, Performed"/>

<statusCode code="completed"/>

</procedureCriteria>

Procedure, Recommended (V3)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01 (open)]

Table 131: Procedure, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Rank](#E_Rank) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Procedure, Recommended.  
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 or providing treatment.  
This template represents a recommendation for a procedure.  
Timing: The time the recommendation is authored (i.e., provided to the patient).

All QDM datatypes referring to recommendations address the time that the recommendation occurs, a single point in time. Vendors have expressed concerns that recommendations are not necessarily captured or managed in a standard manner as part of structured data capture in clinical workflow; many are documented as part of assessments in narrative text. Measure developers should address feasibility of clinical workflow to capture recommendations when evaluating measures.

Table 132: Procedure, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-33154](#C_4423-33154) | PROC |
| @moodCode | 1..1 | SHALL |  | [4423-31209](#C_4423-31209) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-31210](#C_4423-31210) |  |
| templateId | 1..1 | SHALL |  | [4423-31211](#C_4423-31211) |  |
| item | 1..1 | SHALL |  | [4423-31212](#C_4423-31212) |  |
| @root | 1..1 | SHALL |  | [4423-31213](#C_4423-31213) | 2.16.840.1.113883.10.20.28.4.68 |
| @extension | 1..1 | SHALL |  | [4423-33417](#C_4423-33417) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-31214](#C_4423-31214) |  |
| code | 1..1 | SHALL |  | [4423-31215](#C_4423-31215) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-31216](#C_4423-31216) |  |
| title | 1..1 | SHALL |  | [4423-31217](#C_4423-31217) |  |
| statusCode | 1..1 | SHALL |  | [4423-31218](#C_4423-31218) |  |
| @code | 1..1 | SHALL |  | [4423-33155](#C_4423-33155) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active |
| targetSiteCode | 0..1 | MAY |  | [4423-33413](#C_4423-33413) |  |
| item | 1..1 | SHALL |  | [4423-33414](#C_4423-33414) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33416](#C_4423-33416) |  |
| participation | 0..1 | MAY |  | [4423-34465](#C_4423-34465) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34468](#C_4423-34468) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34466](#C_4423-34466) |  |
| low | 1..1 | SHALL |  | [4423-34469](#C_4423-34469) |  |
| role | 1..1 | SHALL |  | [4423-34467](#C_4423-34467) |  |
| @classCode | 1..1 | SHALL |  | [4423-34470](#C_4423-34470) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34471](#C_4423-34471) |  |
| participation | 0..1 | MAY |  | [4423-35425](#C_4423-35425) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35429](#C_4423-35429) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35426](#C_4423-35426) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35427](#C_4423-35427) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35430](#C_4423-35430) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35428](#C_4423-35428) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35912](#C_4423-35912) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35914](#C_4423-35914) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35913](#C_4423-35913) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35431](#C_4423-35431) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35433](#C_4423-35433) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35432](#C_4423-35432) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-31233](#C_4423-31233) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33157](#C_4423-33157) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-31234](#C_4423-31234) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-35770](#C_4423-35770) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35772](#C_4423-35772) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-35771](#C_4423-35771) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CONF:4423-33154).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-31209).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31210).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-31211).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-31212) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.68" (CONF:4423-31213).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33417).
5. SHALL contain exactly one [1..1] id (CONF:4423-31214).
6. SHALL contain exactly one [1..1] code (CONF:4423-31215).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-31216).
7. SHALL contain exactly one [1..1] title (CONF:4423-31217).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-31218).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-33155).
9. MAY contain zero or one [0..1] targetSiteCode (CONF:4423-33413).  
   Note: QDM Attribute: Anatomical Location Site
   1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-33414).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33416).
10. MAY contain zero or one [0..1] participation (CONF:4423-34465) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34468).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34466).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34469).  
          Note: QDM Attribute: Author dateTime (The time the recommendation is authored (i.e., provided to the patient))
    3. SHALL contain exactly one [1..1] role (CONF:4423-34467).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34470).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34471).
11. MAY contain zero or one [0..1] participation (CONF:4423-35425) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35429).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35426).
12. MAY contain zero or one [0..1] participation (CONF:4423-35427) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35430).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35428).
13. MAY contain zero or one [0..1] participation (CONF:4423-35912) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35914).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35913).
14. MAY contain zero or one [0..1] participation (CONF:4423-35431) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35433).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35432).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-31233) 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:4423-33157).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-31234).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35770) such that it  
    Note: QDM Attribute: Rank
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35772).
    2. SHALL contain exactly one [1..1] [Rank](#E_Rank) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01) (CONF:4423-35771).

Figure 64: Procedure, Recommended (V3) Example

<procedureCriteria classCode="PROC" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.68" extension="2019-05-01"/>

</templateId>

<id root="7d559e0a-4e01-4f52-b87b-a3342705e2f2"/>

<code valueSet="{$QDMElementValueSetOID}"/>

<title value="Procedure, Recommended"/>

<statusCode code="completed"/>

</procedureCriteria>

Program Participation (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01 (open)]

Table 133: Program Participation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Participation  
Participation represents a patient’s coverage by a program such as an insurance or medical plan or a payment agreement. Such programs can include patient-centered medical home, disease-specific programs, etc.

Table 134: Program Participation (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34829](#C_4423-34829) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34830](#C_4423-34830) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-34831](#C_4423-34831) |  |
| templateId | 1..1 | SHALL |  | [4423-34819](#C_4423-34819) |  |
| item | 1..1 | SHALL |  | [4423-34820](#C_4423-34820) |  |
| @root | 1..1 | SHALL |  | [4423-34824](#C_4423-34824) | 2.16.840.1.113883.10.20.28.4.130 |
| @extension | 1..1 | SHALL |  | [4423-34825](#C_4423-34825) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34832](#C_4423-34832) |  |
| code | 1..1 | SHALL |  | [4423-34821](#C_4423-34821) |  |
| @code | 1..1 | SHALL |  | [4423-34834](#C_4423-34834) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ASSERTION |
| title | 1..1 | SHALL |  | [4423-34881](#C_4423-34881) |  |
| statusCode | 1..1 | SHALL |  | [4423-34822](#C_4423-34822) |  |
| @code | 1..1 | SHALL |  | [4423-34827](#C_4423-34827) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34823](#C_4423-34823) |  |
| low | 0..1 | MAY |  | [4423-34828](#C_4423-34828) |  |
| high | 0..1 | MAY |  | [4423-34835](#C_4423-34835) |  |
| value | 1..1 | SHALL | CD | [4423-34833](#C_4423-34833) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34836](#C_4423-34836) |  |
| participation | 0..\* | MAY |  | [4423-35416](#C_4423-35416) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35420](#C_4423-35420) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35417](#C_4423-35417) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..\* | MAY |  | [4423-35418](#C_4423-35418) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35421](#C_4423-35421) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35419](#C_4423-35419) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..\* | MAY |  | [4423-35918](#C_4423-35918) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35920](#C_4423-35920) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35919](#C_4423-35919) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..\* | MAY |  | [4423-35422](#C_4423-35422) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35424](#C_4423-35424) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35423](#C_4423-35423) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34829).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34830).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-34831).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-34819).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-34820) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.130" (CONF:4423-34824).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34825).
5. SHALL contain exactly one [1..1] id (CONF:4423-34832).
6. SHALL contain exactly one [1..1] code (CONF:4423-34821).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4423-34834).
7. SHALL contain exactly one [1..1] title (CONF:4423-34881).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-34822).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34827).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34823) such that it  
   Note: QDM Attribute: Participation Period
   1. MAY contain zero or one [0..1] low (CONF:4423-34828).  
      Note: enrollmentStartdate – The time the patient enrolled in the program
   2. MAY contain zero or one [0..1] high (CONF:4423-34835).  
      Note: enrollmentEnddate – The time the patient’s enrollment in the program ends
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34833).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34836).
11. MAY contain zero or more [0..\*] participation (CONF:4423-35416).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35420).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35417).
12. MAY contain zero or more [0..\*] participation (CONF:4423-35418).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35421).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35419).
13. MAY contain zero or more [0..\*] participation (CONF:4423-35918).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35920).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35919).
14. MAY contain zero or more [0..\*] participation (CONF:4423-35422).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35424).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35423).

Figure 65: Program Participation (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.130" extension="2019-05-01"/>

</templateId>

<id root="35cf9fd6-0d3d-4f86-91bf-a87fbf5ba8ef"/>

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

<title value="Program Participation"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Provider Care Experience (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01 (open)]

Table 135: Provider Care Experience (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Provider Care Experience.

Data elements that meet this criterion indicate the provider's experience with availability of resources (e.g., scheduling, equipment, space, and such consumables as medications). Provider care experience gauges provider satisfaction with key structures, processes, and outcomes in the healthcare delivery system.  
Timing: The time the care experience is recorded; author time.

Table 136: Provider Care Experience (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32218](#C_4423-32218) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-32219](#C_4423-32219) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-35354](#C_4423-35354) |  |
| templateId | 1..1 | SHALL |  | [4423-32220](#C_4423-32220) |  |
| item | 1..1 | SHALL |  | [4423-32221](#C_4423-32221) |  |
| @root | 1..1 | SHALL |  | [4423-32222](#C_4423-32222) | 2.16.840.1.113883.10.20.28.4.70 |
| @extension | 1..1 | SHALL |  | [4423-33701](#C_4423-33701) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32223](#C_4423-32223) |  |
| code | 1..1 | SHALL |  | [4423-32224](#C_4423-32224) |  |
| @code | 1..1 | SHALL |  | [4423-32225](#C_4423-32225) | 405193005 |
| @codeSystem | 1..1 | SHALL |  | [4423-32226](#C_4423-32226) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-32227](#C_4423-32227) |  |
| statusCode | 1..1 | SHALL |  | [4423-32228](#C_4423-32228) |  |
| @code | 1..1 | SHALL |  | [4423-32229](#C_4423-32229) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34390](#C_4423-34390) |  |
| low | 1..1 | SHALL |  | [4423-34391](#C_4423-34391) |  |
| value | 1..1 | SHALL | CD | [4423-32230](#C_4423-32230) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32231](#C_4423-32231) |  |
| participation | 0..1 | MAY |  | [4423-35355](#C_4423-35355) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35361](#C_4423-35361) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35356](#C_4423-35356) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35357](#C_4423-35357) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35362](#C_4423-35362) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35358](#C_4423-35358) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35915](#C_4423-35915) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35916](#C_4423-35916) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35917](#C_4423-35917) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35359](#C_4423-35359) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35363](#C_4423-35363) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35360](#C_4423-35360) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-32218).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32219).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-35354).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32220).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32221) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.70" (CONF:4423-32222).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33701).
5. SHALL contain exactly one [1..1] id (CONF:4423-32223).
6. SHALL contain exactly one [1..1] code (CONF:4423-32224).
   1. This code SHALL contain exactly one [1..1] @code="405193005" Caregiver Satisfaction (CONF:4423-32225).
   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:4423-32226).
7. SHALL contain exactly one [1..1] title (CONF:4423-32227).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32228).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32229).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34390) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4423-34391).  
      Note: QDM Attribute: Author dateTime (The time the care experience is recorded)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-32230).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32231).
11. MAY contain zero or one [0..1] participation (CONF:4423-35355).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35361).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35356).
12. MAY contain zero or one [0..1] participation (CONF:4423-35357).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35362).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35358).
13. MAY contain zero or one [0..1] participation (CONF:4423-35915).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35916).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35917).
14. MAY contain zero or one [0..1] participation (CONF:4423-35359).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35363).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35360).

Figure 66: Provider Care Experience (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.70" extension="2019-05-01"/>

</templateId>

<id root="a0b2aa8d-16b8-47b3-831b-94fcbbe31e36"/>

<code code="405193005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Caregiver Satisfaction"/>

</code>

<title value="Provider Care Experience"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Rank

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 (open)]

Table 137: Rank Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Encounter Diagnosis](#E_Encounter_Diagnosis_) (optional) |  |

This template is to represent Rank attribute. Rank is a posiition in a hierarchy. Rank is defined by an integer to indicate the relative importance of an item.  
Rank is expressed as a positive integer, i.e., 1, 2, 3 etc.  
The attribute applies to:  
• Encounter, Performed diagnosis as a component to identify a principal diagnosis for a given encounter. A rank of 1 defines a principal diagnosis  
• Procedure, Performed; Procedure, Order; and Procedure, Recommended – a rank of 1 defines a principal procedure

Table 138: Rank Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3264-33763](#C_3264-33763) | OBS |
| @moodCode | 1..1 | SHALL |  | [3264-33764](#C_3264-33764) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3264-33753](#C_3264-33753) |  |
| item | 1..1 | SHALL |  | [3264-33754](#C_3264-33754) |  |
| @root | 1..1 | SHALL |  | [3264-33759](#C_3264-33759) | 2.16.840.1.113883.10.20.28.4.139 |
| @extension | 1..1 | SHALL |  | [3264-33760](#C_3264-33760) | 2019-05-01 |
| code | 1..1 | SHALL |  | [3264-33755](#C_3264-33755) |  |
| @code | 1..1 | SHALL |  | [3264-33761](#C_3264-33761) | 263486008 |
| @codeSystem | 1..1 | SHALL |  | [3264-33762](#C_3264-33762) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | INT | [3264-33756](#C_3264-33756) |  |
| @value | 1..1 | SHALL |  | [3264-33765](#C_3264-33765) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3264-33763).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3264-33764).
3. SHALL contain exactly one [1..1] templateId (CONF:3264-33753) such that it
   1. SHALL contain exactly one [1..1] item (CONF:3264-33754).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.139" (CONF:3264-33759).
      2. This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:3264-33760).
4. SHALL contain exactly one [1..1] code (CONF:3264-33755).
   1. This code SHALL contain exactly one [1..1] @code="263486008" Rank (attribute) (CONF:3264-33761).
   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:3264-33762).
5. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:3264-33756).
   1. This value SHALL contain exactly one [1..1] @value (CONF:3264-33765).

Figure 67: Rank Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.139" extension="2019-05-01"/>

</templateId>

<code code="263486008" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Rank"/>

</code>

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

</observationCriteria>

Reason

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 (open)]

Table 139: Reason Contexts

| Contained By: | Contains: |
| --- | --- |
| [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) (optional)  [Assessment, Order (V2)](#E_Assessment_Order_V2) (optional)  [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (required)  [Device, Applied (V3)](#E_Device_Applied_V3_) (optional)  [Device, Order (V2)](#E_Device_Order_V2_) (optional)  [Device, Recommended (V2)](#E_Device_Recommended_V2_) (optional)  [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) (optional)  [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Encounter, Order (V2)](#E_Encounter_Order_V2_) (optional)  [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) (optional)  [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) (optional)  [Immunization, Administered (V4)](#E_Immunization_Administered_V4) (optional)  [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Intervention, Order (V2)](#E_Intervention_Order_V2_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) (optional)  [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) (optional)  [Medication, Administered (V4)](#E_Medication_Administered_V4_) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional)  [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional)  [Procedure, Order (V4)](#E_Procedure_Order_V4_) (optional)  [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) (optional) |  |

This template represents the QDM attribute: Reason.

It represents the thought process or justification for an action or for not performing an action. In some measures, specific treatments are acceptable inclusion criteria only if a justified reason is present. Each of these measures uses a value set (often, but not exclusively, using SNOMED CT) to express acceptable justification reasons. Other measures specify reasons as justification for exclusions. Examples include patient, system, or medical-related reasons for declining to perform specific actions. Each of these measures also uses a value set to express acceptable justification reasons for declining to perform expected actions.

Table 140: Reason Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3335-29895](#C_3335-29895) | OBS |
| @moodCode | 1..1 | SHALL |  | [3335-29896](#C_3335-29896) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3335-29897](#C_3335-29897) |  |
| item | 1..1 | SHALL |  | [3335-29898](#C_3335-29898) |  |
| @root | 1..1 | SHALL |  | [3335-29899](#C_3335-29899) | 2.16.840.1.113883.10.20.28.4.88 |
| @extension | 1..1 | SHALL |  | [3335-33686](#C_3335-33686) | 2017-05-01 |
| code | 1..1 | SHALL |  | [3335-29901](#C_3335-29901) |  |
| @code | 1..1 | SHALL |  | [3335-29902](#C_3335-29902) | 410666004 |
| @codeSystem | 1..1 | SHALL |  | [3335-29903](#C_3335-29903) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| value | 1..1 | SHALL | CD | [3335-29904](#C_3335-29904) |  |
| @valueSet | 0..1 | SHOULD |  | [3335-34681](#C_3335-34681) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3335-29895).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3335-29896).
3. SHALL contain exactly one [1..1] templateId (CONF:3335-29897).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3335-29898) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.88" (CONF:3335-29899).
      2. SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33686).
4. SHALL contain exactly one [1..1] code (CONF:3335-29901).
   1. This code SHALL contain exactly one [1..1] @code="410666004" Reason (CONF:3335-29902).
   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:3335-29903).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3335-29904).
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3335-34681).

Figure 68: Reason Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.88" extension="2017-05-01"/>

</templateId>

<id root="05c07740-1f8d-417e-a9f2-fc769b1d342d"/>

<code code="410666004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Reason"/>

</code>

<title value="Reason"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Related Person

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01 (open)]

Table 141: Related Person Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) |  |

This template represents the QDM data type: Related Person.  
A Related Person typically has a personal or non-healthcare-specific professional relationship to the patient. A Related Person QDM datatype is primarily used for attribution of information, since RelatedPersons are often a source of information about the patient. Some individuals may serve as both an activity performer (i.e., referenced as the Care Partner entity), and a Related Person (i.e., the individual from whose record clinical information should be retrieved to support care provided to a patient). The QDM datatype, Related Person, references the latter. Example Related Persons are a patient's mother, father, wife or husband, and potentially, a patient's relatives or friends, a neighbor bringing a patient to the hospital, a patient's attorney or guardian.

Table 142: Related Person Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-35586](#C_4423-35586) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-35587](#C_4423-35587) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4423-35588](#C_4423-35588) |  |
| templateId | 1..1 | SHALL |  | [4423-35570](#C_4423-35570) |  |
| item | 1..1 | SHALL |  | [4423-35571](#C_4423-35571) |  |
| @root | 1..1 | SHALL |  | [4423-35581](#C_4423-35581) | 2.16.840.1.113883.10.20.28.4.141 |
| @extension | 1..1 | SHALL |  | [4423-35582](#C_4423-35582) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-35589](#C_4423-35589) |  |
| code | 1..1 | SHALL |  | [4423-35572](#C_4423-35572) |  |
| @code | 1..1 | SHALL |  | [4423-35595](#C_4423-35595) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 444018008 |
| @codeSystem | 1..1 | SHALL |  | [4423-35596](#C_4423-35596) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-35936](#C_4423-35936) |  |
| value | 0..1 | MAY | CD | [4423-35738](#C_4423-35738) |  |
| participation | 0..1 | MAY |  | [4423-35961](#C_4423-35961) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35963](#C_4423-35963) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35962](#C_4423-35962) | PAT |
| @classCode | 1..1 | SHALL |  | [4423-35964](#C_4423-35964) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PAT |
| id | 1..1 | SHALL |  | [4423-35965](#C_4423-35965) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-35586).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-35587).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-35588).
4. SHALL contain exactly one [1..1] templateId (CONF:4423-35570).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-35571) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.141" (CONF:4423-35581).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35582).
5. SHALL contain exactly one [1..1] id (CONF:4423-35589).  
   Note: QDM Attribute: id
6. SHALL contain exactly one [1..1] code (CONF:4423-35572).
   1. This code SHALL contain exactly one [1..1] @code=" 444018008" Person with characteristic related to subject of record (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4423-35595).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:4423-35596).
7. SHALL contain exactly one [1..1] title (CONF:4423-35936).
8. MAY contain zero or one [0..1] value with @xsi:type="CD" (CONF:4423-35738).  
   Note: QDM Attribute: Code
9. MAY contain zero or one [0..1] participation (CONF:4423-35961) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PART" Participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35963).
   2. SHALL contain exactly one [1..1] role="PAT" Patient (CONF:4423-35962).
      1. This role SHALL contain exactly one [1..1] @classCode="PAT" Patient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35964).
      2. This role SHALL contain exactly one [1..1] id (CONF:4423-35965).  
         Note: QDM Attribute: LinkedPatientId

Figure 69: Related Person Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.141" extension="2019-05-01"/>

</templateId>

<code code="444018008" codeSystem="2.16.840.1.113883.6.96"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Related To

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 (open)]

Table 143: Related To Contexts

| Contained By: | Contains: |
| --- | --- |
| [Assessment, Performed (V3)](#E_Assessment_Performed_V3) (optional)  [Care Goal (V3)](#E_Care_Goal_V3_) (optional)  [Communication, Performed (V2)](#E_Communication_Performed_V2) (optional) |  |

This template represents the QDM attribute: Related To.  
Something to which the QDM element is related.  
The id of this template references the existing id of the QDM element this is related to. The root attribute of the id is required.

Table 144: Related To Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-34725](#C_3346-34725) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-34726](#C_3346-34726) | EVN |
| templateId | 1..1 | SHALL |  | [3346-34717](#C_3346-34717) |  |
| item | 1..1 | SHALL |  | [3346-34718](#C_3346-34718) |  |
| @root | 1..1 | SHALL |  | [3346-34721](#C_3346-34721) | 2.16.840.1.113883.10.20.28.4.127 |
| @extension | 1..1 | SHALL |  | [3346-34722](#C_3346-34722) | 2017-08-01 |
| id | 1..1 | SHALL |  | [3346-34727](#C_3346-34727) |  |
| @root | 1..1 | SHALL |  | [3346-34730](#C_3346-34730) |  |
| @extension | 0..1 | MAY |  | [3346-34731](#C_3346-34731) |  |
| code | 1..1 | SHALL |  | [3346-34719](#C_3346-34719) |  |
| @code | 1..1 | SHALL |  | [3346-34723](#C_3346-34723) | 42752001 |
| @codeSystem | 1..1 | SHALL |  | [3346-34724](#C_3346-34724) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-34725).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:3346-34726).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-34717).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-34718) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.127" (CONF:3346-34721).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34722).
4. SHALL contain exactly one [1..1] id (CONF:3346-34727).
   1. This id SHALL contain exactly one [1..1] @root (CONF:3346-34730).
   2. This id MAY contain zero or one [0..1] @extension (CONF:3346-34731).
5. SHALL contain exactly one [1..1] code (CONF:3346-34719).
   1. This code SHALL contain exactly one [1..1] @code="42752001" Due to (CONF:3346-34723).
   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:3346-34724).

Figure 70: Related To Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.127" extension="2017-08-01"/>

</templateId>

<id root="302625d2-e41a-4d51-ba11-af0dfc81a11b"/>

<code code="42752001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Due to"/>

</code>

<title value="Related To"/>

</observationCriteria>

Result (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 (open)]

Table 145: Result (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional) |  |

This template represents the QDM attribute: Result.  
This represents the final consequences or data collected from a sequence of actions or events, or observable entities including, but not limited to procedures, laboratory tests, physical examinations, or diagnostic tests.  
This template is used to represent result in all actCriteria except observationCriteria, where result is represented directly using observationCriteria/value. However, even though "Diagnostic Study, Performed" and "Laboratory Test, Performed" are observationCriteria, because these two data types also contain Result dateTime attribute, this Result template is also used to represent result in lieu of observation/value.

Table 146: Result (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-32186](#C_3346-32186) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-32187](#C_3346-32187) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3346-32188](#C_3346-32188) |  |
| item | 1..1 | SHALL |  | [3346-32189](#C_3346-32189) |  |
| @root | 1..1 | SHALL |  | [3346-32190](#C_3346-32190) | 2.16.840.1.113883.10.20.28.4.101 |
| @extension | 1..1 | SHALL |  | [3346-34653](#C_3346-34653) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3346-32192](#C_3346-32192) |  |
| @code | 1..1 | SHALL |  | [3346-32193](#C_3346-32193) | 394617004 |
| @codeSystem | 1..1 | SHALL |  | [3346-32194](#C_3346-32194) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| effectiveTime | 0..1 | MAY | IVL\_TS | [3346-34761](#C_3346-34761) |  |
| low | 1..1 | SHALL |  | [3346-34762](#C_3346-34762) |  |
| value | 1..1 | SHALL |  | [3346-32196](#C_3346-32196) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-32186).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3346-32187).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-32188).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-32189) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.101" (CONF:3346-32190).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34653).
4. SHALL contain exactly one [1..1] code (CONF:3346-32192).
   1. This code SHALL contain exactly one [1..1] @code="394617004" Result (CONF:3346-32193).
   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:3346-32194).
5. MAY contain zero or one [0..1] effectiveTime (CONF:3346-34761).  
   Note: QDM Attribute: Result dateTime (The time the result report is generated and saved in the database)
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:3346-34762).
6. SHALL contain exactly one [1..1] value (CONF:3346-32196).  
   Note: QDM Attribute: Result

Figure 71: Result (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.101" extension="2017-08-01"/>

</templateId>

<id root="6626ee8e-e72b-4382-97a0-9a00ac27763a"/>

<code code="394617004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Result"/>

</code>

<title value="Result"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Severity Observation (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 (open)]

Table 147: Severity Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V3)](#E_Adverse_Event_V3) (optional)  [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) (optional)  [Diagnosis (V3)](#E_Diagnosis_V3) (optional)  [Symptom (V3)](#E_Symptom_V3) (optional) |  |

This template represents the QDM attribute: Severity.  
Severity observation represents the gravity of the problem, such as allergy or reaction, in terms of its actual or potential impact on the patient.

Table 148: Severity Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-30129](#C_3346-30129) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-30130](#C_3346-30130) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3346-30131](#C_3346-30131) |  |
| item | 1..1 | SHALL |  | [3346-30132](#C_3346-30132) |  |
| @root | 1..1 | SHALL |  | [3346-30133](#C_3346-30133) | 2.16.840.1.113883.10.20.28.4.93 |
| @extension | 1..1 | SHALL |  | [3346-33691](#C_3346-33691) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3346-30135](#C_3346-30135) |  |
| @code | 1..1 | SHALL |  | [3346-30136](#C_3346-30136) | SEV |
| @codeSystem | 1..1 | SHALL |  | [3346-30137](#C_3346-30137) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [3346-30138](#C_3346-30138) |  |
| @valueSet | 0..1 | SHOULD |  | [3346-34843](#C_3346-34843) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-30129).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3346-30130).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-30131).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-30132) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.93" (CONF:3346-30133).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33691).
4. SHALL contain exactly one [1..1] code (CONF:3346-30135).
   1. This code SHALL contain exactly one [1..1] @code="SEV" Severity Observation (CONF:3346-30136).
   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:3346-30137).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3346-30138).
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3346-34843).

Figure 72: Severity Observation (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.93" extension="2017-08-01"/>

</templateId>

<code code="SEV" codeSystem="2.16.840.1.113883.5.4" codeSystemName="HL7 ActCode">

<displayName value="Severity Observation"/>

</code>

<title value="Severity"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Status (V2)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 (open)]

Table 149: Status (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) (optional)  [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) (optional)  [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) (optional)  [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) (optional) |  |

This template represents the QDM attribute: Status.

Status represents the particular stage of the subject within a defined process.

Table 150: Status (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-30151](#C_3346-30151) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-30152](#C_3346-30152) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3346-30153](#C_3346-30153) |  |
| item | 1..1 | SHALL |  | [3346-30155](#C_3346-30155) |  |
| @root | 1..1 | SHALL |  | [3346-30156](#C_3346-30156) | 2.16.840.1.113883.10.20.28.4.94 |
| @extension | 1..1 | SHALL |  | [3346-33690](#C_3346-33690) | 2017-08-01 |
| code | 1..1 | SHALL |  | [3346-30158](#C_3346-30158) |  |
| @code | 1..1 | SHALL |  | [3346-30159](#C_3346-30159) | 33999-4 |
| @codeSystem | 1..1 | SHALL |  | [3346-30160](#C_3346-30160) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| value | 1..1 | SHALL | CD | [3346-30162](#C_3346-30162) |  |
| @valueSet | 0..1 | SHOULD |  | [3346-34844](#C_3346-34844) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-30151).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3346-30152).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-30153).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-30155) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.94" (CONF:3346-30156).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33690).
4. SHALL contain exactly one [1..1] code (CONF:3346-30158).
   1. This code SHALL contain exactly one [1..1] @code="33999-4" Status (CONF:3346-30159).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3346-30160).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3346-30162).
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:3346-34844).

Figure 73: Status (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.94" extension="2017-08-01"/>

</templateId>

<code code="33999-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<displayName value="Status"/>

</code>

<title value="Status"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Substance, Administered (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01 (open)]

Table 151: Substance, Administered (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Substance, Administered.

A substance is a chemical element and its compounds in the natural state or obtained by any manufacturing process (other than pharmaceutical drugs), including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent that may be separated without affecting the stability of the substance or changing its composition. Examples of a substance may include but are not limited to: environmental agents (e.g., pollen, dust) and food (e.g., vitamins).

This template represents a substance that has been administered.  
Timing: Relevant dateTime references the time the substance is administered if it was given or taken at a single point in time. Relevant Period references a start and stop time for substance administration if the administration event occurred over a time interval. The Relevant Period addresses: StartTime = when a single substance administration event starts (e.g., the initiation of an intravenous infusion, or administering a the substance orally or topically to a patient); StopTime = when a single substance administration event ends (e.g., the end time of the intravenous infusion, or the administration of a substance orally or topically is completed - for oral or topical administration, the start and stop times are the same).  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.

Table 152: Substance, Administered (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32878](#C_4423-32878) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-32879](#C_4423-32879) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4423-32880](#C_4423-32880) |  |
| templateId | 1..1 | SHALL |  | [4423-32881](#C_4423-32881) |  |
| item | 1..1 | SHALL |  | [4423-32882](#C_4423-32882) |  |
| @root | 1..1 | SHALL |  | [4423-32883](#C_4423-32883) | 2.16.840.1.113883.10.20.28.4.73 |
| @extension | 1..1 | SHALL |  | [4423-33393](#C_4423-33393) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32884](#C_4423-32884) |  |
| code | 1..1 | SHALL |  | [4423-32885](#C_4423-32885) |  |
| @code | 1..1 | SHALL |  | [4423-33177](#C_4423-33177) | 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4423-33178](#C_4423-33178) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-32887](#C_4423-32887) |  |
| statusCode | 1..1 | SHALL |  | [4423-32888](#C_4423-32888) |  |
| @code | 1..1 | SHALL |  | [4423-32889](#C_4423-32889) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-32890](#C_4423-32890) |  |
| low | 0..1 | MAY |  | [4423-32891](#C_4423-32891) |  |
| high | 0..1 | MAY |  | [4423-32892](#C_4423-32892) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-34845](#C_4423-34845) |  |
| period | 0..1 | MAY |  | [4423-34846](#C_4423-34846) |  |
| routeCode | 0..1 | MAY |  | [4423-32894](#C_4423-32894) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32895](#C_4423-32895) |  |
| doseQuantity | 0..1 | MAY |  | [4423-32896](#C_4423-32896) |  |
| participation | 1..1 | SHALL |  | [4423-32897](#C_4423-32897) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32898](#C_4423-32898) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32899](#C_4423-32899) |  |
| @classCode | 1..1 | SHALL |  | [4423-32900](#C_4423-32900) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4423-32901](#C_4423-32901) |  |
| @classCode | 1..1 | SHALL |  | [4423-32902](#C_4423-32902) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32903](#C_4423-32903) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32904](#C_4423-32904) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32905](#C_4423-32905) |  |
| participation | 0..1 | MAY |  | [4423-34563](#C_4423-34563) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34566](#C_4423-34566) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34564](#C_4423-34564) |  |
| low | 1..1 | SHALL |  | [4423-34567](#C_4423-34567) |  |
| role | 1..1 | SHALL |  | [4423-34565](#C_4423-34565) |  |
| @classCode | 1..1 | SHALL |  | [4423-34568](#C_4423-34568) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-34569](#C_4423-34569) |  |
| participation | 0..1 | MAY |  | [4423-35407](#C_4423-35407) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35411](#C_4423-35411) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35408](#C_4423-35408) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35409](#C_4423-35409) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35412](#C_4423-35412) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35410](#C_4423-35410) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35933](#C_4423-35933) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35935](#C_4423-35935) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35934](#C_4423-35934) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35413](#C_4423-35413) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35415](#C_4423-35415) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35414](#C_4423-35414) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-32878).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32879).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-32880).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32881).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32882) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.73" (CONF:4423-32883).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33393).
5. SHALL contain exactly one [1..1] id (CONF:4423-32884).
6. SHALL contain exactly one [1..1] code (CONF:4423-32885).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CONF:4423-33177).
   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:4423-33178).
7. SHALL contain exactly one [1..1] title (CONF:4423-32887).
8. SHALL contain exactly one [1..1] statusCode (CONF:4423-32888).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32889).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4423-32890) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4423-32891).  
      Note: startTime of Relevant Period (When a single substance administration event starts (e.g., the initiation of an intravenous infusion, or administering a the substance orally or topically to a patient)) or QDM Attribute: Relevant dateTime (References the time the substance is administered if it was given or taken at a single point in time.
   2. MAY contain zero or one [0..1] high (CONF:4423-32892).  
      Note: stopTime of Relevant Period (When a single substance administration event ends (e.g., the end time of the intravenous infusion, or the administration of a substance orally or topically is completed - for oral or topical administration, the start and stop times are the same)
10. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34845) such that it  
    Note: QDM Attribute: Frequency
    1. MAY contain zero or one [0..1] period (CONF:4423-34846).
11. MAY contain zero or one [0..1] routeCode (CONF:4423-32894).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32895).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4423-32896).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4423-32897) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32898).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32899).
       1. This role SHALL contain exactly one [1..1] @classCode="ADMM" Administerable Material (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32900).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4423-32901).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32902).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32903).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4423-32904).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32905).
14. MAY contain zero or one [0..1] participation (CONF:4423-34563) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34566).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34564).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34567).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4423-34565).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34568).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-34569).
15. MAY contain zero or one [0..1] participation (CONF:4423-35407) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35411).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35408).
16. MAY contain zero or one [0..1] participation (CONF:4423-35409) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35412).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35410).
17. MAY contain zero or one [0..1] participation (CONF:4423-35933) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35935).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35934).
18. MAY contain zero or one [0..1] participation (CONF:4423-35413) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35415).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35414).

Figure 74: Substance, Administered (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.73" extension="2019-05-01"/>

</templateId>

<id root="8918e418-fdc0-4c9c-b902-67502e324b9b"/>

<code code="416118004" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Administration"/>

</code>

<title value="Substance, Administered"/>

<statusCode code="completed" />

<participation typeCode="CSM">

<role classCode="ADMM">

<playingMaterial classCode="MAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Substance, Order (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01 (open)]

Table 153: Substance, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Substance, Order.  
This template represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide a substance to a patient.  
Timing: The time the order is signed; author datetime.  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.

Table 154: Substance, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32623](#C_4423-32623) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-32624](#C_4423-32624) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4423-32625](#C_4423-32625) |  |
| templateId | 1..1 | SHALL |  | [4423-32626](#C_4423-32626) |  |
| item | 1..1 | SHALL |  | [4423-32627](#C_4423-32627) |  |
| @root | 1..1 | SHALL |  | [4423-32628](#C_4423-32628) | 2.16.840.1.113883.10.20.28.4.77 |
| @extension | 1..1 | SHALL |  | [4423-33652](#C_4423-33652) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32629](#C_4423-32629) |  |
| title | 1..1 | SHALL |  | [4423-32632](#C_4423-32632) |  |
| statusCode | 1..1 | SHALL |  | [4423-32633](#C_4423-32633) |  |
| @code | 1..1 | SHALL |  | [4423-32634](#C_4423-32634) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-35566](#C_4423-35566) |  |
| period | 0..1 | MAY |  | [4423-35567](#C_4423-35567) |  |
| repeatNumber | 0..1 | MAY |  | [4423-32638](#C_4423-32638) |  |
| routeCode | 0..1 | MAY |  | [4423-32639](#C_4423-32639) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32640](#C_4423-32640) |  |
| doseQuantity | 0..1 | MAY |  | [4423-32641](#C_4423-32641) |  |
| participation | 1..1 | SHALL |  | [4423-32642](#C_4423-32642) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32643](#C_4423-32643) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32644](#C_4423-32644) |  |
| @classCode | 1..1 | SHALL |  | [4423-32645](#C_4423-32645) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4423-32646](#C_4423-32646) |  |
| @classCode | 1..1 | SHALL |  | [4423-32647](#C_4423-32647) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32648](#C_4423-32648) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32649](#C_4423-32649) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32650](#C_4423-32650) |  |
| participation | 0..1 | MAY |  | [4423-33511](#C_4423-33511) |  |
| @typeCode | 1..1 | SHALL |  | [4423-33513](#C_4423-33513) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-33512](#C_4423-33512) |  |
| low | 1..1 | SHALL |  | [4423-33514](#C_4423-33514) |  |
| role | 1..1 | SHALL |  | [4423-33601](#C_4423-33601) |  |
| @classCode | 1..1 | SHALL |  | [4423-33602](#C_4423-33602) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4423-33603](#C_4423-33603) |  |
| participation | 0..1 | MAY |  | [4423-35400](#C_4423-35400) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35404](#C_4423-35404) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35401](#C_4423-35401) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35927](#C_4423-35927) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35931](#C_4423-35931) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35928](#C_4423-35928) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35929](#C_4423-35929) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35932](#C_4423-35932) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35930](#C_4423-35930) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35402](#C_4423-35402) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35405](#C_4423-35405) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35406](#C_4423-35406) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-32651](#C_4423-32651) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32652](#C_4423-32652) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-32653](#C_4423-32653) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34485](#C_4423-34485) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34486](#C_4423-34486) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34848](#C_4423-34848) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-32623).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32624).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-32625).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32626).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32627) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.77" (CONF:4423-32628).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33652).
5. SHALL contain exactly one [1..1] id (CONF:4423-32629).
6. SHALL contain exactly one [1..1] title (CONF:4423-32632).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-32633).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32634).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-35566) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-35567).
9. MAY contain zero or one [0..1] repeatNumber (CONF:4423-32638).  
   Note: QDM Attribute: Refills
10. MAY contain zero or one [0..1] routeCode (CONF:4423-32639).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32640).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4423-32641).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4423-32642) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32643).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32644).
       1. This role SHALL contain exactly one [1..1] @classCode="ADMM" Administerable Material (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32645).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4423-32646).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32647).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32648).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4423-32649).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32650).
13. MAY contain zero or one [0..1] participation (CONF:4423-33511) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-33513).
    2. SHALL contain exactly one [1..1] time (CONF:4423-33512).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-33514).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4423-33601).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-33602).
       2. This role MAY contain zero or one [0..1] id (CONF:4423-33603).
14. MAY contain zero or one [0..1] participation (CONF:4423-35400) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35404).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35401).
15. MAY contain zero or one [0..1] participation (CONF:4423-35927) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35931).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35928).
16. MAY contain zero or one [0..1] participation (CONF:4423-35929) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35932).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35930).
17. MAY contain zero or one [0..1] participation (CONF:4423-35402) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35405).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35406).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-32651) 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:4423-32652).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-32653).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34485) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34486).
    2. SHALL contain exactly one [1..1] [Supply](#E_Supply) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) (CONF:4423-34848).

Figure 75: Substance, Order (V4) Example

<substanceAdministrationCriteria classCode="SBADM" moodCode="RQO">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.77" extension="2019-05-01"/>

</templateId>

<id root="58f3015d-d2dc-45ac-bf6d-fa8d1588603f"/>

<title value="Substance, Order"/>

<statusCode code="active"/>

<participation typeCode="CSM">

<role classCode="ADMM">

<playingMaterial classCode="MAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}"/>

</playingMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Substance, Recommended (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01 (open)]

Table 155: Substance, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Substance, Recommended.

A substance is a chemical element and its compounds in the natural state or obtained by any manufacturing process (other than pharmaceutical drugs), including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent that may be separated without affecting the stability of the substance or changing its composition. Examples of a substance may include but are not limited to: environmental agents (e.g., pollen, dust) and food (e.g., vitamins).

This template represents a recommendation for a substance.  
Timing: The time the recommendation is authored (i.e., provided to the patient).  
Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration.  
Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication).

Table 156: Substance, Recommended (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-32063](#C_4423-32063) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4423-32064](#C_4423-32064) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4423-32065](#C_4423-32065) |  |
| templateId | 1..1 | SHALL |  | [4423-32066](#C_4423-32066) |  |
| item | 1..1 | SHALL |  | [4423-32125](#C_4423-32125) |  |
| @root | 1..1 | SHALL |  | [4423-32126](#C_4423-32126) | 2.16.840.1.113883.10.20.28.4.78 |
| @extension | 1..1 | SHALL |  | [4423-33693](#C_4423-33693) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-32067](#C_4423-32067) |  |
| title | 1..1 | SHALL |  | [4423-32069](#C_4423-32069) |  |
| statusCode | 1..1 | SHALL |  | [4423-32070](#C_4423-32070) |  |
| @code | 1..1 | SHALL |  | [4423-32071](#C_4423-32071) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4423-35568](#C_4423-35568) |  |
| period | 0..1 | MAY |  | [4423-35569](#C_4423-35569) |  |
| repeatNumber | 0..1 | MAY |  | [4423-32121](#C_4423-32121) |  |
| routeCode | 0..1 | MAY |  | [4423-32123](#C_4423-32123) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-33200](#C_4423-33200) |  |
| doseQuantity | 0..1 | MAY |  | [4423-32124](#C_4423-32124) |  |
| participation | 1..1 | SHALL |  | [4423-32103](#C_4423-32103) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32104](#C_4423-32104) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4423-32105](#C_4423-32105) |  |
| @classCode | 1..1 | SHALL |  | [4423-32106](#C_4423-32106) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4423-32107](#C_4423-32107) |  |
| @classCode | 1..1 | SHALL |  | [4423-32108](#C_4423-32108) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4423-32109](#C_4423-32109) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4423-32110](#C_4423-32110) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-32111](#C_4423-32111) |  |
| participation | 0..1 | MAY |  | [4423-34473](#C_4423-34473) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34476](#C_4423-34476) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4423-34474](#C_4423-34474) |  |
| low | 1..1 | SHALL |  | [4423-34477](#C_4423-34477) |  |
| role | 1..1 | SHALL |  | [4423-34475](#C_4423-34475) |  |
| @classCode | 1..1 | SHALL |  | [4423-34478](#C_4423-34478) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| participation | 0..1 | MAY |  | [4423-35391](#C_4423-35391) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35395](#C_4423-35395) | PART |
| role | 1..1 | SHALL |  | [4423-35392](#C_4423-35392) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35393](#C_4423-35393) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35396](#C_4423-35396) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35394](#C_4423-35394) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35924](#C_4423-35924) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35926](#C_4423-35926) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35925](#C_4423-35925) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35397](#C_4423-35397) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35399](#C_4423-35399) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35398](#C_4423-35398) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-32112](#C_4423-32112) |  |
| @typeCode | 1..1 | SHALL |  | [4423-32113](#C_4423-32113) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4423-32114](#C_4423-32114) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4423-34488](#C_4423-34488) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34489](#C_4423-34489) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4423-34849](#C_4423-34849) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4423-32063).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-32064).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-32065).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4423-32066).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4423-32125) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.78" (CONF:4423-32126).
      2. SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33693).
5. SHALL contain exactly one [1..1] id (CONF:4423-32067).
6. SHALL contain exactly one [1..1] title (CONF:4423-32069).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-32070).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-32071).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-35568) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4423-35569).
9. MAY contain zero or one [0..1] repeatNumber (CONF:4423-32121).  
   Note: QDM Attribute: Refills
10. MAY contain zero or one [0..1] routeCode (CONF:4423-32123).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-33200).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4423-32124).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4423-32103) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-32104).
    2. SHALL contain exactly one [1..1] role (CONF:4423-32105).
       1. This role SHALL contain exactly one [1..1] @classCode="ADMM" Administerable Material (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-32106).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4423-32107).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4423-32108).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4423-32109).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4423-32110).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-32111).
13. MAY contain zero or one [0..1] participation (CONF:4423-34473) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34476).
    2. SHALL contain exactly one [1..1] time (CONF:4423-34474).
       1. This time SHALL contain exactly one [1..1] low (CONF:4423-34477).  
          Note: QDM Attribute: Author dateTime (The time the recommendation is authored (i.e., provided to the patient))
    3. SHALL contain exactly one [1..1] role (CONF:4423-34475).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-34478).
14. MAY contain zero or one [0..1] participation (CONF:4423-35391) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35395).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35392).
15. MAY contain zero or one [0..1] participation (CONF:4423-35393) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35396).
    2. SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35394).
16. MAY contain zero or one [0..1] participation (CONF:4423-35924) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35926).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35925).
17. MAY contain zero or one [0..1] participation (CONF:4423-35397) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35399).
    2. SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35398).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-32112) 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:4423-32113).
    2. SHALL contain exactly one [1..1] [Reason](#E_Reason_V1) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01) (CONF:4423-32114).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34488) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34489).
    2. SHALL contain exactly one [1..1] [Supply](#E_Supply) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) (CONF:4423-34849).

Figure 76: Substance, Recommended (V4) Example

<substanceAdministrationCriteria classCode="SBADM" moodCode="INT">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.78" extension="2019-05-01"/>

</templateId>

<id root="e208b889-30eb-4c2b-be1f-372084e98bbc"/>

<title value="Substance, Recommended"/>

<statusCode code="active"/>

<participation typeCode="CSM">

<role classCode="ADMM">

<playingMaterial classCode="MAT" determinerCode="KIND">

<code valueSet="{$QDMElementValueSetOID}" />

</playingMaterial>

</role>

</participation>

</substanceAdministrationCriteria>

Supply

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 (open)]

Table 157: Supply Contexts

| Contained By: | Contains: |
| --- | --- |
| [Immunization, Order (V3)](#E_Immunization_Order_V3) (optional)  [Medication, Discharge (V3)](#E_Medication_Discharge_V3) (optional)  [Medication, Order (V4)](#E_Medication_Order_V4_) (optional)  [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) (optional)  [Substance, Order (V4)](#E_Substance_Order_V4) (optional) |  |

This template represents the QDM Attribute: Supply  
The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication)

Table 158: Supply Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-34795](#C_3346-34795) | SPLY |
| @moodCode | 1..1 | SHALL |  | [3346-34796](#C_3346-34796) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3346-34771](#C_3346-34771) |  |
| item | 1..1 | SHALL |  | [3346-34772](#C_3346-34772) |  |
| @root | 1..1 | SHALL |  | [3346-34783](#C_3346-34783) | 2.16.840.1.113883.10.20.28.4.129 |
| @extension | 1..1 | SHALL |  | [3346-34784](#C_3346-34784) | 2017-08-01 |
| id | 1..1 | SHALL |  | [3346-34797](#C_3346-34797) |  |
| quantity | 1..1 | SHALL |  | [3346-34800](#C_3346-34800) |  |

1. SHALL contain exactly one [1..1] @classCode="SPLY" Supply (CONF:3346-34795).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3346-34796).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-34771).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-34772) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.129" (CONF:3346-34783).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34784).
4. SHALL contain exactly one [1..1] id (CONF:3346-34797).
5. SHALL contain exactly one [1..1] quantity (CONF:3346-34800).  
   Note: QDM Attribute: Supply

Figure 77: Supply Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.129" extension="2017-08-01"/>

</templateId>

<id root="5ab17ed3-166c-4265-9c61-d254e30c8e83"/>

<title value="Supply"/>

<quantity xsi:type="IVL\_PQ">

<low value="50" unit="mL"/>

</quantity>

</supplyCriteria>

Symptom (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01 (open)]

Table 159: Symptom (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Practitioner](#E_Entity__Practitioner) (optional)  [Entity - Organization](#E_Entity__Organization_) (optional)  [Entity - Patient](#E_Entity__Patient) (optional)  [Entity - Care Partner](#E_Entity__Care_Partner) (optional) |

This template represents the QDM data type: Symptom.

A symptom is a patient's reported perception of departure from normal functioning that is present at the time indicated.

Timing: The Prevalence Period references the time from the onset date to the abatement date.  
The onset datetime corresponds to the implicit start datetime of the datatype and the abatement datetime corresponds to the implicit stop datetime of the datatype. If the abatement datetime is null, then the symptom is considered to still be active. When this datatype is used with timing relationships, the criterion is looking for whether the symptom was active for the time frame indicated by the timing relationships.

Table 160: Symptom (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4423-34108](#C_4423-34108) | OBS |
| @moodCode | 1..1 | SHALL |  | [4423-34109](#C_4423-34109) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4423-34079](#C_4423-34079) |  |
| item | 1..1 | SHALL |  | [4423-34080](#C_4423-34080) |  |
| @root | 1..1 | SHALL |  | [4423-34093](#C_4423-34093) | 2.16.840.1.113883.10.20.28.4.116 |
| @extension | 1..1 | SHALL |  | [4423-34480](#C_4423-34480) | 2019-05-01 |
| id | 1..1 | SHALL |  | [4423-34112](#C_4423-34112) |  |
| code | 1..1 | SHALL |  | [4423-34081](#C_4423-34081) |  |
| @code | 1..1 | SHALL |  | [4423-34095](#C_4423-34095) | 418799008 |
| @codeSystem | 1..1 | SHALL |  | [4423-34096](#C_4423-34096) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4423-34111](#C_4423-34111) |  |
| statusCode | 1..1 | SHALL |  | [4423-34082](#C_4423-34082) |  |
| @code | 1..1 | SHALL |  | [4423-34097](#C_4423-34097) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4423-34083](#C_4423-34083) |  |
| low | 0..1 | MAY |  | [4423-34098](#C_4423-34098) |  |
| high | 0..1 | MAY |  | [4423-34099](#C_4423-34099) |  |
| value | 1..1 | SHALL | CD | [4423-34088](#C_4423-34088) |  |
| @valueSet | 0..1 | SHOULD |  | [4423-34105](#C_4423-34105) |  |
| participation | 0..1 | MAY |  | [4423-35382](#C_4423-35382) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35386](#C_4423-35386) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35383](#C_4423-35383) | [Entity - Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01](#E_Entity__Practitioner) |
| participation | 0..1 | MAY |  | [4423-35384](#C_4423-35384) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35387](#C_4423-35387) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35385](#C_4423-35385) | [Entity - Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01](#E_Entity__Organization_) |
| participation | 0..1 | MAY |  | [4423-35921](#C_4423-35921) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35923](#C_4423-35923) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4423-35922](#C_4423-35922) | [Entity - Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01](#E_Entity__Care_Partner) |
| participation | 0..1 | MAY |  | [4423-35388](#C_4423-35388) |  |
| @typeCode | 1..1 | SHALL |  | [4423-35390](#C_4423-35390) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4423-35389](#C_4423-35389) | [Entity - Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01](#E_Entity__Patient) |
| outboundRelationship | 0..1 | MAY |  | [4423-34078](#C_4423-34078) |  |
| @typeCode | 1..1 | SHALL |  | [4423-34092](#C_4423-34092) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4423-34091](#C_4423-34091) | [Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01](#E_Severity_Observation_2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4423-34108).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-34109).
3. SHALL contain exactly one [1..1] templateId (CONF:4423-34079) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4423-34080).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.116" (CONF:4423-34093).
      2. This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34480).
4. SHALL contain exactly one [1..1] id (CONF:4423-34112).
5. SHALL contain exactly one [1..1] code (CONF:4423-34081).
   1. This code SHALL contain exactly one [1..1] @code="418799008" Symptom (CONF:4423-34095).
   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:4423-34096).
6. SHALL contain exactly one [1..1] title (CONF:4423-34111).
7. SHALL contain exactly one [1..1] statusCode (CONF:4423-34082).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-34097).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4423-34083) such that it  
   Note: QDM Attribute: Prevalence Period (References the time from the onset date to the abatement date)
   1. MAY contain zero or one [0..1] low (CONF:4423-34098).  
      Note: Onset dateTime
   2. MAY contain zero or one [0..1] high (CONF:4423-34099).  
      Note: Abatement dateTime (If the abatement datetime is null, then the symptom is considered to still be active)
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4423-34088).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4423-34105).
10. MAY contain zero or one [0..1] participation (CONF:4423-35382).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35386).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner](#E_Entity__Practitioner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01) (CONF:4423-35383).
11. MAY contain zero or one [0..1] participation (CONF:4423-35384).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35387).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization](#E_Entity__Organization_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01) (CONF:4423-35385).
12. MAY contain zero or one [0..1] participation (CONF:4423-35921).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35923).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner](#E_Entity__Care_Partner) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01) (CONF:4423-35922).
13. MAY contain zero or one [0..1] participation (CONF:4423-35388).  
    Note: QDM Attribute: Recorder
    1. The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35390).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient](#E_Entity__Patient) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01) (CONF:4423-35389).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4423-34078) 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:4423-34092).
    2. SHALL contain exactly one [1..1] [Severity Observation (V2)](#E_Severity_Observation_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01) (CONF:4423-34091).

Figure 78: Symptom (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.116" extension="2019-05-01"/>

</templateId>

<id root="9e4e810d-3c3e-461e-86f8-6fe7a0b1ca2b"/>

<code code="418799008" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Symptom"/>

</code>

<title value="Symptom"/>

<statusCode code="completed"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

Target Outcome

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01 (open)]

Table 161: Target Outcome Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Goal (V3)](#E_Care_Goal_V3_) (optional) |  |

This template represents the QDM attribute: Target Outcome.  
The expected outcome that will indicate the care goal is achieved, or met.

Table 162: Target Outcome Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3346-29112](#C_3346-29112) | OBS |
| @moodCode | 1..1 | SHALL |  | [3346-29113](#C_3346-29113) | GOL |
| templateId | 1..1 | SHALL |  | [3346-29104](#C_3346-29104) |  |
| item | 1..1 | SHALL |  | [3346-29105](#C_3346-29105) |  |
| @root | 1..1 | SHALL |  | [3346-29108](#C_3346-29108) | 2.16.840.1.113883.10.20.28.4.128 |
| @extension | 1..1 | SHALL |  | [3346-29109](#C_3346-29109) | 2017-08-01 |
| id | 1..1 | SHALL |  | [3346-29114](#C_3346-29114) |  |
| code | 1..1 | SHALL |  | [3346-29106](#C_3346-29106) |  |
| @code | 1..1 | SHALL |  | [3346-29110](#C_3346-29110) | 385676005 |
| @codeSystem | 1..1 | SHALL |  | [3346-29111](#C_3346-29111) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [3346-29116](#C_3346-29116) |  |
| value | 1..1 | SHALL |  | [3346-29107](#C_3346-29107) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:3346-29112).
2. SHALL contain exactly one [1..1] @moodCode="GOL" Goal (CONF:3346-29113).
3. SHALL contain exactly one [1..1] templateId (CONF:3346-29104).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:3346-29105) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.128" (CONF:3346-29108).
      2. SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-29109).
4. SHALL contain exactly one [1..1] id (CONF:3346-29114).
5. SHALL contain exactly one [1..1] code (CONF:3346-29106).
   1. This code SHALL contain exactly one [1..1] @code="385676005" Outcome of action (CONF:3346-29110).
   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:3346-29111).
6. SHALL contain exactly one [1..1] title (CONF:3346-29116).
7. SHALL contain exactly one [1..1] value (CONF:3346-29107).

Figure 79: Target Outcome Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.128" extension="2017-08-01"/>

</templateId>

<code code="385676005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<displayName value="Outcome of action"/>

</code>

<title value="Target Outcome"/>

<value xsi:type="CD" valueSet="{$QDMElementValueSetOID}"/>

</observationCriteria>

# Template Ids in This Guide

Table 163: Template List

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V4)](#D_QDM_Templates_for_CQLBased_HQMF_H) | Document | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01 |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01 |
| [Measure Description Section](#S_Measure_Description_Section) | Section | urn:oid:2.16.840.1.113883.10.20.28.2.3 |
| [Measure Observations Section (V2)](#S_Measure_Observations_Section_V2) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01 |
| [Population Criteria Section (V2)](#S_Population_Criteria_Section_2) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01 |
| [Admission Source](#E_Admission_Source_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01 |
| [Adverse Event (V3)](#E_Adverse_Event_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01 |
| [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01 |
| [Assessment, Order (V2)](#E_Assessment_Order_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01 |
| [Assessment, Performed (V3)](#E_Assessment_Performed_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01 |
| [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01 |
| [Care Goal (V3)](#E_Care_Goal_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01 |
| [Cause](#E_Cause) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01 |
| [Communication, Performed (V2)](#E_Communication_Performed_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01 |
| [Component](#E_Component_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 |
| [Days Supplied](#E_Days_Supplied) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 |
| [Device, Applied (V3)](#E_Device_Applied_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01 |
| [Device, Order (V2)](#E_Device_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01 |
| [Device, Recommended (V2)](#E_Device_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01 |
| [Diagnosis (V3)](#E_Diagnosis_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01 |
| [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01 |
| [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01 |
| [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01 |
| [Dosage](#E_Dosage) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01 |
| [Encounter Diagnosis](#E_Encounter_Diagnosis_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01 |
| [Encounter, Order (V2)](#E_Encounter_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01 |
| [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01 |
| [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Family History (V2)](#E_Family_History_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01 |
| [Immunization, Administered (V4)](#E_Immunization_Administered_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01 |
| [Immunization, Order (V3)](#E_Immunization_Order_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01 |
| [Incision Datetime](#E_Incision_Datetime_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01 |
| [Intervention, Order (V2)](#E_Intervention_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01 |
| [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01 |
| [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01 |
| [Laboratory Test Component](#E_Laboratory_Test_Component) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01 |
| [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01 |
| [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01 |
| [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01 |
| [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01 |
| [Medication, Active (V4)](#E_Medication_Active_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01 |
| [Medication, Administered (V4)](#E_Medication_Administered_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01 |
| [Medication, Discharge (V3)](#E_Medication_Discharge_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01 |
| [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01 |
| [Medication, Order (V4)](#E_Medication_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01 |
| Ordinality (RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.97:2019-05-01 |
| [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01 |
| [Patient Characteristic (V2)](#E_Patient_Characteristic_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01 |
| [Patient Characteristic Birth Date](#E_Patient_Characteristic_Birth_Date) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01 |
| [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01 |
| [Patient Characteristic Ethnicity](#E_Patient_Characteristic_Ethnicity) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01 |
| [Patient Characteristic Expired](#E_Patient_Characteristic_Expired_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01 |
| [Patient Characteristic Payer](#E_Patient_Characteristic_Payer) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01 |
| [Patient Characteristic Race](#E_Patient_Characteristic_Race) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01 |
| [Patient Characteristic Sex](#E_Patient_Characteristic_Sex) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01 |
| [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01 |
| [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01 |
| [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01 |
| [Present On Admission Indicator](#E_Present_On_Admission_Indicator) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01 |
| Principal Diagnosis (RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2019-05-01 |
| [Procedure, Order (V4)](#E_Procedure_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01 |
| [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01 |
| [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01 |
| [Program Participation (V3)](#E_Program_Participation_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01 |
| [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01 |
| Provider Characteristic (RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2019-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Related Person](#E_Related_Person_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Substance, Administered (V4)](#E_Substance_Administered_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01 |
| [Substance, Order (V4)](#E_Substance_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01 |
| [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Symptom (V3)](#E_Symptom_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01 |
| [Target Outcome](#E_Target_Outcome_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01 |

Table 164: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V4)](#D_QDM_Templates_for_CQLBased_HQMF_H) | Document | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01 |
| [Measure Description Section](#S_Measure_Description_Section) | Section | urn:oid:2.16.840.1.113883.10.20.28.2.3 |
| [Population Criteria Section (V2)](#S_Population_Criteria_Section_2) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.7:2017-08-01 |
| [Measure Observations Section (V2)](#S_Measure_Observations_Section_V2) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.4:2018-05-01 |
| [Ordinality (RETIRED)](#E_Ordinality_RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.97:2019-05-01 |
| [Principal Diagnosis (RETIRED)](#E_Principal_Diagnosis_RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2019-05-01 |
| [Provider Characteristic (RETIRED)](#E_Provider_Characteristic_RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2019-05-01 |
| [Data Criteria Section (V4)](#S_Data_Criteria_Section_V4) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01 |
| [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.6:2017-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Patient Characteristic Birth Date](#E_Patient_Characteristic_Birth_Date) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.54:2017-05-01 |
| [Patient Characteristic Ethnicity](#E_Patient_Characteristic_Ethnicity) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.56:2017-05-01 |
| [Patient Characteristic Expired](#E_Patient_Characteristic_Expired_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.57:2017-05-01 |
| [Cause](#E_Cause) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01 |
| [Patient Characteristic Payer](#E_Patient_Characteristic_Payer) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.58:2017-05-01 |
| [Patient Characteristic Race](#E_Patient_Characteristic_Race) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.59:2017-05-01 |
| [Patient Characteristic Sex](#E_Patient_Characteristic_Sex) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.55:2017-05-01 |
| [Patient Characteristic (V2)](#E_Patient_Characteristic_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.53:2017-08-01 |
| [Adverse Event (V3)](#E_Adverse_Event_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Allergy Intolerance (V3)](#E_Allergy_Intolerance_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Assessment, Order (V2)](#E_Assessment_Order_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Assessment, Performed (V3)](#E_Assessment_Performed_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Component](#E_Component_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Assessment, Recommended (V3)](#E_Assessment_Recommended_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Care Goal (V3)](#E_Care_Goal_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [Target Outcome](#E_Target_Outcome_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Communication, Performed (V2)](#E_Communication_Performed_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Device, Applied (V3)](#E_Device_Applied_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Device, Order (V2)](#E_Device_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Device, Recommended (V2)](#E_Device_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Diagnostic Study, Order (V4)](#E_Diagnostic_Study_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Diagnostic Study, Performed (V3)](#E_Diagnostic_Study_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Component](#E_Component_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Diagnosis (V3)](#E_Diagnosis_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Diagnostic Study, Recommended (V4)](#E_Diagnostic_Study_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Encounter, Order (V2)](#E_Encounter_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Encounter, Performed (V3)](#E_Encounter_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01 |
| [Admission Source](#E_Admission_Source_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.123:2017-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Encounter Diagnosis](#E_Encounter_Diagnosis_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01 |
| [Present On Admission Indicator](#E_Present_On_Admission_Indicator) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.140:2019-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Encounter, Recommended (V2)](#E_Encounter_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Family History (V2)](#E_Family_History_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Immunization, Administered (V4)](#E_Immunization_Administered_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Immunization, Order (V3)](#E_Immunization_Order_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Intervention, Order (V2)](#E_Intervention_Order_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Intervention, Performed (V3)](#E_Intervention_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Intervention, Recommended (V2)](#E_Intervention_Recommended_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Laboratory Test, Order (V3)](#E_Laboratory_Test_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Laboratory Test, Performed (V3)](#E_Laboratory_Test_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Laboratory Test Component](#E_Laboratory_Test_Component) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01 |
| [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01 |
| [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.124:2017-05-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Laboratory Test, Recommended (V3)](#E_Laboratory_Test_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Medication, Active (V4)](#E_Medication_Active_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Medication, Administered (V4)](#E_Medication_Administered_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Medication, Discharge (V3)](#E_Medication_Discharge_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Days Supplied](#E_Days_Supplied) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Medication, Dispensed (V3)](#E_Medication_Dispensed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Dosage](#E_Dosage) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01 |
| [Days Supplied](#E_Days_Supplied) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Medication, Order (V4)](#E_Medication_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Days Supplied](#E_Days_Supplied) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Patient Care Experience (V2)](#E_Patient_Care_Experience_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Provider Care Experience (V2)](#E_Provider_Care_Experience_V2_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Physical Exam, Performed (V3)](#E_Physical_Exam_Performed_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Component](#E_Component_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Physical Exam, Order (V3)](#E_Physical_Exam_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Symptom (V3)](#E_Symptom_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Substance, Recommended (V4)](#E_Substance_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Substance, Order (V4)](#E_Substance_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Substance, Administered (V4)](#E_Substance_Administered_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Program Participation (V3)](#E_Program_Participation_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Procedure, Recommended (V3)](#E_Procedure_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Procedure, Performed (V4)](#E_Procedure_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Component](#E_Component_1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01 |
| [Incision Datetime](#E_Incision_Datetime_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Procedure, Order (V4)](#E_Procedure_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Physical Exam, Recommended (V3)](#E_Physical_Exam_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Practitioner](#E_Entity__Practitioner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 |
| [Entity - Organization](#E_Entity__Organization_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 |
| [Entity - Patient](#E_Entity__Patient) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 |
| [Entity - Care Partner](#E_Entity__Care_Partner) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 |
| [Related Person](#E_Related_Person_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01 |

# Code Systems in This Guide

Table 165: Code Systems

| Name | OID |
| --- | --- |
| EntityDeterminer | urn:oid:2.16.840.1.113883.5.30 |
| 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 |
| 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 |
| HL7EntityClass | urn:oid:2.16.840.1.113883.5.41 |
| HL7EntityDeterminer | urn:oid:2.16.840.1.113883.5.30 |
| HL7ObservationValue | urn:oid:2.16.840.1.113883.5.1063 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 |
| HL7RoleLinkType | urn:oid:2.16.840.1.113883.5.107 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| UCUM | urn:oid:2.16.840.1.113883.6.8 |

# Retired Templates

Table 166: Retired Templates

| Name | OID | Description |
| --- | --- | --- |
| Ordinality (RETIRED) | urn:hl7ii:2.16.840.1.113883.10.20.28.4.97:2019-05-01 | This template represents the QDM attribute: Ordinality |
| Principal Diagnosis (RETIRED) | urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2019-05-01 | The coded diagnosis/problem established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care. |
| Provider Characteristic (RETIRED) | urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2019-05-01 | This template represents the QDM data type: Provider Characteristic.  Provider characteristics refer to specific factors about a provider. Included are demographics, behavioral factors, social, or cultural factors, available resources, and preferences.  Timing: The time the characteristic is authored.  Provider Characteristic data type is retired in QDM 5.5 |

# Changes from Previous Version

QDM Templates for CQL-Based HQMF Header (V4)

[QDM Templates for CQL-Based HQMF Header (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01)](#D_QDM_Templates_for_CQLBased_HQMF_H)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | QDM Templates for CQL-Based HQMF Header (V3) | QDM Templates for CQL-Based HQMF Header (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01 |
| Description | This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.4). | This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.5). |
| CONF #: 4423-34908 Added |  | This setId SHALL contain exactly one [1..1] @root (CONF:4423-34908). |
| CONF #: 4423-34909 Added |  | This setId SHALL contain exactly one [1..1] @extension (CONF:4423-34909). |
| CONF #: 4423-34910 Added |  | This id SHALL contain exactly one [1..1] @root (CONF:4423-34910).  Note: The id of the component eCQM |
| CONF #: 4423-34911 Added |  | This id SHOULD contain zero or one [0..1] @identifierName (CONF:4423-34911).  Note: The title of the component eCQM |
| CONF #: 4423-34912 Added |  | The setId, if present, SHALL contain exactly one [1..1] @root (CONF:4423-34912).  Note: The setId of the component eCQM |
| CONF #: 4423-34913 Added |  | VersionNumber SHALL be present if the setId element is present and if present, it SHALL have a value attribute that is the versionNumber of the component eCQM (CONF:4423-34913). |
| CONF #: 4423-35955 Added |  | SHALL contain exactly one [1..1] dataCriteriaSection (CONF:4423-35955). |
| CONF #: 3372-18833 Removed | SHALL contain exactly one [1..1] dataCriteriaSection (CONF:3372-18833). |  |
| CONF #: 3372-34899 Removed | SHALL contain exactly one [1..1] parentQualityMeasureDocument (CONF:3372-34899). |  |
| CONF #: 3372-34900 Removed | This parentQualityMeasureDocument SHALL contain exactly one [1..1] id (CONF:3372-34900). |  |
| CONF #: 3372-34901 Removed | This parentQualityMeasureDocument SHOULD contain zero or one [0..1] versionNumber (CONF:3372-34901). |  |
| CONF #: 4423-33755 Modified | SHALL contain zero or one [0..1] @extension="2018-05-01" (CONF:3372-33755). | SHALL contain zero or one [0..1] @extension="2019-05-01" (CONF:4423-33755). |
| CONF #: 4423-34898 Modified | SHALL contain at least one [1..\*] relatedDocument (CONF:3372-34898) such that it | MAY contain at least one [1..\*] relatedDocument (CONF:4423-34898) such that it |
| CONF #: 4423-34903 Modified | This id SHALL contain exactly one [1..1] @root (CONF:3372-34903).  Note: The id of the component eCQM | This expressionDocument SHALL contain exactly one [1..1] setId (CONF:4423-34903). |
| CONF #: 4423-34904 Modified | This id SHOULD contain zero or one [0..1] @identifierName (CONF:3372-34904).  Note: The title of the component eCQM | SHALL contain exactly one [1..1] componentQualityMeasureDocument (CONF:4423-34904). |
| CONF #: 4423-34905 Modified | This parentQualityMeasureDocument SHOULD contain zero or one [0..1] setId (CONF:3372-34905). | This componentQualityMeasureDocument SHALL contain exactly one [1..1] id (CONF:4423-34905). |
| CONF #: 4423-34906 Modified | VersionNumber SHALL be present if the setId element is present and if present, it SHALL have a value attribute that is the versionNumber of the component eCQM (CONF:3372-34906). | This componentQualityMeasureDocument SHOULD contain zero or one [0..1] setId (CONF:4423-34906). |
| CONF #: 4423-34907 Modified | The setId, if present, SHALL contain exactly one [1..1] @root (CONF:3372-34907).  Note: The setId of the component eCQM | This componentQualityMeasureDocument SHOULD contain zero or one [0..1] versionNumber (CONF:4423-34907). |

Adverse Event (V3)

[Adverse Event (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01)](#E_Adverse_Event_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Adverse Event (V2) | Adverse Event (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01 |
| Description | This template represents the 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. Timing: The Prevalence Period references the time from the onset date to the abatement date. | This template represents the 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. Timing: The Relevant dateTime references the adverse event occurred. The Author dateTime references the time the adverse event was recorded. |
| CONF #: 4423-34966 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34966) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34967 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34967). |
| CONF #: 4423-34968 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34968) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34969 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34969). |
| CONF #: 4423-34970 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34970). |
| CONF #: 4423-34971 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34971). |
| CONF #: 4423-34972 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34972) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34973 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-34973). |
| CONF #: 4423-34974 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34974). |
| CONF #: 4423-35795 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35795) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35796 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35796). |
| CONF #: 4423-35797 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35797). |
| CONF #: 3346-34200 Removed | MAY contain zero or one [0..1] high (CONF:3346-34200).  Note: StopTime – the time the adverse event completed |  |
| CONF #: 4423-34531 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34531). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34531). |
| CONF #: 4423-34199 Modified | MAY contain zero or one [0..1] low (CONF:3346-34199).  Note: StartTime – the time the adverse event began | SHALL contain exactly one [1..1] low (CONF:4423-34199).  Note: QDM Attribute: Relevant dateTime (references the adverse event occurred) |
| CONF #: 4423-34501 Modified | SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3346-34501). | SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34501). |

Allergy Intolerance (V3)

[Allergy Intolerance (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01)](#E_Allergy_Intolerance_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Allergy Intolerance (V2) | Allergy Intolerance (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01 |
| CONF #: 4423-34979 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34979) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34980 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34980). |
| CONF #: 4423-34981 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34981) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34982 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-34982). |
| CONF #: 4423-34983 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34983) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-34984 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34984). |
| CONF #: 4423-34985 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34985). |
| CONF #: 4423-34986 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34986). |
| CONF #: 4423-34987 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34987). |
| CONF #: 4423-35798 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35798) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35799 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35799). |
| CONF #: 4423-35800 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35800). |
| CONF #: 4423-34532 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34532). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34532). |

Assessment, Order (V2)

[Assessment, Order (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01)](#E_Assessment_Order_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Assessment, Order | Assessment, Order (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01 |
| CONF #: 4423-34988 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34988) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-34989 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34989). |
| CONF #: 4423-34990 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34990) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-34991 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-34991). |
| CONF #: 4423-34992 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34992) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-34993 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34993). |
| CONF #: 4423-34994 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34994). |
| CONF #: 4423-34995 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34995). |
| CONF #: 4423-34996 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34996). |
| CONF #: 4423-35801 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35801) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35802 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35802). |
| CONF #: 4423-35803 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35803). |
| CONF #: 4423-34665 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34665). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34665). |

Assessment, Performed (V3)

[Assessment, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01)](#E_Assessment_Performed_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Assessment, Performed (V2) | Assessment, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01 |
| Description | This template represents the QDM data type: 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. Timing: The time the assessment is completed; author time. | This template represents the QDM data type: 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. Timing: The time the assessment is performed; Relevant dateTime references timing for an assessment that occurs at a single point in time. Relevant Period references a start and stop time for an assessment that occurs over a time interval. author time. Author dateTime references the time the assessment was recorded and applies only when the record has no reference to the time the assessment was performed and only the recorded time is available. Negation of QDM datatype-related actions for a reason always use the author dateTime attribute to reference timing and must not use Relevant Period. |
| CONF #: 4423-34997 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34997) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-34998 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-34998). |
| CONF #: 4423-34999 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-34999) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35000 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35000). |
| CONF #: 4423-35001 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35001) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35002 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35002). |
| CONF #: 4423-35003 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35003). |
| CONF #: 4423-35004 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35004). |
| CONF #: 4423-35005 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35005). |
| CONF #: 4423-35804 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35804) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35805 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35805). |
| CONF #: 4423-35806 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35806). |
| CONF #: 4423-35956 Added |  | MAY contain zero or one [0..1] effectiveTime (CONF:4423-35956) such that it  Note: QDM Attribute: Relevant Period (The Relevant Period references the time from the onset date to the abatement date) |
| CONF #: 4423-35957 Added |  | MAY contain zero or one [0..1] low (CONF:4423-35957).  Note: start time of Relevant Period. QDM Attribute: Relevant dateTime. |
| CONF #: 4423-35958 Added |  | MAY contain zero or one [0..1] high (CONF:4423-35958).  Note: stop time of Relevant Period |
| CONF #: 4423-34254 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34254). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34254). |

Assessment, Recommended (V3)

[Assessment, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01)](#E_Assessment_Recommended_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Assessment, Recommended (V2) | Assessment, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01 |
| CONF #: 4423-35006 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35006) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35007 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35007). |
| CONF #: 4423-35008 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35008) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35009 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35009). |
| CONF #: 4423-35010 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35010) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35011 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35011). |
| CONF #: 4423-35012 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35012). |
| CONF #: 4423-35013 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35013). |
| CONF #: 4423-35014 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35014). |
| CONF #: 4423-35807 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35807) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35808 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35808). |
| CONF #: 4423-35809 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35809). |
| CONF #: 3372-34277 Removed | This role MAY contain zero or one [0..1] id (CONF:3372-34277). |  |
| CONF #: 4423-34273 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34273). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34273). |

Care Goal (V3)

[Care Goal (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01)](#E_Care_Goal_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Care Goal (V2) | Care Goal (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01 |
| CONF #: 4423-35015 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35015).  Note: QDM Attribute: Performer |
| CONF #: 4423-35016 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35016). |
| CONF #: 4423-35017 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35017).  Note: QDM Attribute: Performer |
| CONF #: 4423-35018 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35018). |
| CONF #: 4423-35019 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35019).  Note: QDM Attribute: Performer |
| CONF #: 4423-35020 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35020). |
| CONF #: 4423-35021 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35021). |
| CONF #: 4423-35022 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35022). |
| CONF #: 4423-35023 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35023). |
| CONF #: 4423-35810 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35810).  Note: QDM Attribute: Performer |
| CONF #: 4423-35811 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35811). |
| CONF #: 4423-35812 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35812). |
| CONF #: 4423-35959 Added |  | MAY contain zero or one [0..1] activityTime (CONF:4423-35959). |
| CONF #: 4423-35960 Added |  | The activityTime, if present, SHALL contain exactly one [1..1] low (CONF:4423-35960).  Note: QDM Attribute: statusDate (when the goal took effect) |
| CONF #: 4423-33051 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33051). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33051). |

Communication, Performed (V2)

[Communication, Performed (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01)](#E_Communication_Performed_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Communication, Performed | Communication, Performed (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01 |
| Description | This template represents the QDM data type: Communication, Performed Communication is a conveyance of information from one entity (e.g., person, organization, or device) to another. Timing:  Relevant Period: The time the communication is sent (start time) to the time the communication is received (end time) Author dateTime the time the communication is documented (specifically significant for negation rationale, i.e., Communication Not Performed). | This template represents the QDM data type: Communication, Performed Communication is a conveyance of information from one entity (e.g., person, organization, or device) to another. Timing: sent dateTime – when the communication was sent; received dateTime – when the communication was received. Author dateTime the time the communication is documented (specifically significant for negation rationale, i.e., Communication Not Performed). |
| CONF #: 4423-35024 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35024). |
| CONF #: 4423-35025 Added |  | SHALL contain exactly one [1..1] templateId (CONF:4423-35025). |
| CONF #: 4423-35026 Added |  | This templateId SHALL contain exactly one [1..1] item (CONF:4423-35026) such that it |
| CONF #: 4423-35027 Added |  | SHALL contain exactly one [1..1] statusCode (CONF:4423-35027). |
| CONF #: 4423-35028 Added |  | MAY contain zero or one [0..1] code (CONF:4423-35028).  Note: QDM Attribute: Category - The type of message conveyed by a communication (e.g., notification, alert, reminder, instruction, etc.). |
| CONF #: 4423-35029 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4423-35029) such that it  Note: QDM Attribute: Related To |
| CONF #: 4423-35030 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35030). |
| CONF #: 4423-35031 Added |  | MAY contain zero or one [0..1] effectiveTime (CONF:4423-35031) such that it |
| CONF #: 4423-35032 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35032) such that it |
| CONF #: 4423-35033 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35033). |
| CONF #: 4423-35034 Added |  | SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35034). |
| CONF #: 4423-35035 Added |  | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.132" (CONF:4423-35035). |
| CONF #: 4423-35036 Added |  | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35036). |
| CONF #: 4423-35037 Added |  | This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4423-35037). |
| CONF #: 4423-35038 Added |  | The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35038). |
| CONF #: 4423-35039 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35039). |
| CONF #: 4423-35040 Added |  | MAY contain zero or one [0..1] low (CONF:4423-35040).  Note: QDM Attribute: sent dateTime – The time the communication is sent |
| CONF #: 4423-35041 Added |  | MAY contain zero or one [0..1] high (CONF:4423-35041).  Note: QDM Attribute: received dateTime – The time the communication is received |
| CONF #: 4423-35042 Added |  | SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:4423-35042). |
| CONF #: 4423-35043 Added |  | SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4423-35043). |
| CONF #: 4423-35044 Added |  | MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-35044).  Note: QDM Attribute: Negation Rationale |
| CONF #: 4423-35045 Added |  | SHALL contain exactly one [1..1] id (CONF:4423-35045). |
| CONF #: 4423-35046 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35046). |
| CONF #: 4423-35047 Added |  | SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35047). |
| CONF #: 4423-35048 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35048) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4423-35049 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35049). |
| CONF #: 4423-35050 Added |  | SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35050). |
| CONF #: 4423-35052 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35052) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4423-35053 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35053). |
| CONF #: 4423-35054 Added |  | SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35054). |
| CONF #: 4423-35055 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35055) such that it  Note: QDM Attribute: Sender |
| CONF #: 4423-35056 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35056). |
| CONF #: 4423-35057 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35057) such that it  Note: QDM Attribute: Sender |
| CONF #: 4423-35058 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35058). |
| CONF #: 4423-35059 Added |  | SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35059). |
| CONF #: 4423-35060 Added |  | SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CONF:4423-35060). |
| CONF #: 4423-35813 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35813) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4423-35814 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35814). |
| CONF #: 4423-35815 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35815). |
| CONF #: 3372-34682 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:3372-34682). |  |
| CONF #: 3372-34683 Removed | SHALL contain exactly one [1..1] templateId (CONF:3372-34683). |  |
| CONF #: 3372-34684 Removed | This templateId SHALL contain exactly one [1..1] item (CONF:3372-34684) such that it |  |
| CONF #: 3372-34690 Removed | SHALL contain exactly one [1..1] statusCode (CONF:3372-34690). |  |
| CONF #: 3372-34691 Removed | MAY contain zero or one [0..1] code (CONF:3372-34691).  Note: QDM Attribute: Category - The type of message conveyed by a communication (e.g., notification, alert, reminder, instruction, etc.). |  |
| CONF #: 3372-34692 Removed | MAY contain zero or more [0..\*] outboundRelationship (CONF:3372-34692) such that it  Note: QDM Attribute: Related To |  |
| CONF #: 3372-34693 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:3372-34693). |  |
| CONF #: 3372-34694 Removed | MAY contain zero or one [0..1] effectiveTime (CONF:3372-34694) such that it  Note: QDM Attribute: Relevant Period - the time the communication is sent (start time) to the time the communication is received (end time) |  |
| CONF #: 3372-34695 Removed | SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3372-34695). |  |
| CONF #: 3372-34696 Removed | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.132" (CONF:3372-34696). |  |
| CONF #: 3372-34697 Removed | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34697). |  |
| CONF #: 3372-34704 Removed | This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3372-34704). |  |
| CONF #: 3372-34705 Removed | The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:3372-34705). |  |
| CONF #: 3372-34706 Removed | SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:3372-34706). |  |
| CONF #: 3372-34707 Removed | SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3372-34707). |  |
| CONF #: 3372-34708 Removed | MAY contain zero or one [0..1] @actionNegationInd (CONF:3372-34708).  Note: QDM Attribute: Negation Rationale |  |
| CONF #: 3372-34709 Removed | SHALL contain exactly one [1..1] id (CONF:3372-34709). |  |
| CONF #: 3372-34710 Removed | SHALL contain exactly one [1..1] title (CONF:3372-34710). |  |
| CONF #: 3372-34711 Removed | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3372-34711). |  |
| CONF #: 3372-34712 Removed | MAY contain zero or one [0..1] low (CONF:3372-34712).  Note: StartTime – The time the communication is sent |  |
| CONF #: 3372-34713 Removed | MAY contain zero or one [0..1] high (CONF:3372-34713).  Note: EndTime – The time the communication is received |  |
| CONF #: 3372-34714 Removed | MAY contain zero or one [0..1] participation (CONF:3372-34714) such that it |  |
| CONF #: 3372-34715 Removed | SHALL contain exactly one [1..1] role (CONF:3372-34715). |  |
| CONF #: 3372-34716 Removed | SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3372-34716). |  |
| CONF #: 3372-34855 Removed | This role SHALL contain exactly one [1..1] @classCode="ASSIGNED" Assigned (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3372-34855). |  |
| CONF #: 3372-34856 Removed | This role SHALL contain exactly one [1..1] code (CONF:3372-34856).  Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication |  |
| CONF #: 3372-34858 Removed | This role SHALL contain exactly one [1..1] code (CONF:3372-34858).  Note: QDM Attribute:Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication |  |
| CONF #: 4423-34854 Modified | SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3372-34854). | SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-34854). |

Device, Applied (V3)

[Device, Applied (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01)](#E_Device_Applied_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Device, Applied (V2) | Device, Applied (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01 |
| Description | This template represents the QDM data type: Device, Applied.  This represents the application of an instrument, apparatus, implement, machine, contrivance, implant, in-vitro reagent, or other similar or related article, including a component part or accessory, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.  Timing: The Relevant Period addresses: startTime – When the device is inserted or first used; stopTime – when the device is removed or last used. | This template represents the QDM data type: Device, Applied.  This represents the application of an instrument, apparatus, implement, machine, contrivance, implant, in-vitro reagent, or other similar or related article, including a component part or accessory, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes.  Timing: Relevant dateTime addresses The time the device is applied if it was used at a single point in time; Relevant Period references a start and stop time for a device if the application occurred over a time interval. Author dateTime references the time the device application was recorded and applies only when the record has no reference to the actual time the device was applied and only the recorded time is available. |
| CONF #: 4423-35061 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35061) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35062 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35062). |
| CONF #: 4423-35063 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35063) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35064 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35064). |
| CONF #: 4423-35065 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35065) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35066 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35066). |
| CONF #: 4423-35067 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35067). |
| CONF #: 4423-35068 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35068). |
| CONF #: 4423-35069 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35069). |
| CONF #: 4423-35816 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35816) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35817 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35817). |
| CONF #: 4423-35818 Added |  | SHALL contain exactly one [1..1] id (CONF:4423-35818). |
| CONF #: 4423-35819 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35819). |
| CONF #: 3372-31308 Removed | SHALL contain exactly one [1..1] id (CONF:3372-31308). |  |
| CONF #: 4423-33361 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33361). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33361). |

Device, Order (V2)

[Device, Order (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01)](#E_Device_Order_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Device, Order | Device, Order (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01 |
| CONF #: 4423-35070 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35070) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35071 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35071). |
| CONF #: 4423-35072 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35072). |
| CONF #: 4423-35073 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35073) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35074 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35074). |
| CONF #: 4423-35075 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35075) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35076 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35076). |
| CONF #: 4423-35077 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35077). |
| CONF #: 4423-35078 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35078). |
| CONF #: 4423-35820 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35820) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35821 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35821). |
| CONF #: 4423-35822 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35822). |
| CONF #: 4423-33642 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33642). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33642). |

Device, Recommended (V2)

[Device, Recommended (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01)](#E_Device_Recommended_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Device, Recommended | Device, Recommended (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01 |
| CONF #: 4423-35079 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35079) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35080 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35080). |
| CONF #: 4423-35081 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35081) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35082 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35082). |
| CONF #: 4423-35083 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35083) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35084 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35084). |
| CONF #: 4423-35085 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35085). |
| CONF #: 4423-35086 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35086). |
| CONF #: 4423-35087 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35087). |
| CONF #: 4423-35823 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35823) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35824 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35824). |
| CONF #: 4423-35825 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35825). |
| CONF #: 4423-33699 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33699). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33699). |

Diagnosis (V3)

[Diagnosis (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01)](#E_Diagnosis_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Diagnosis (V2) | Diagnosis (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01 |
| CONF #: 4423-35106 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35106).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35107 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35107). |
| CONF #: 4423-35108 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35108).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35109 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35109). |
| CONF #: 4423-35110 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35110).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35111 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35111). |
| CONF #: 4423-35112 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35112). |
| CONF #: 4423-35113 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35113). |
| CONF #: 4423-35114 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35114). |
| CONF #: 4423-35826 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35826).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35827 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35827). |
| CONF #: 4423-35828 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35828). |
| CONF #: 4423-34321 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34321). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34321). |

Diagnostic Study, Order (V4)

[Diagnostic Study, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01)](#E_Diagnostic_Study_Order_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Diagnostic Study, Order (V3) | Diagnostic Study, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01 |
| CONF #: 4423-35088 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35088) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35089 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35089). |
| CONF #: 4423-35090 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35090) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35091 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35091). |
| CONF #: 4423-35092 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35092) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35093 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35093). |
| CONF #: 4423-35094 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35094). |
| CONF #: 4423-35095 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35095). |
| CONF #: 4423-35096 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35096). |
| CONF #: 4423-35829 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35829) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35830 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35830). |
| CONF #: 4423-35831 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35831). |
| CONF #: 4423-35938 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35938). |
| CONF #: 3372-30112 Removed | SHALL contain exactly one [1..1] title (CONF:3372-30112). |  |
| CONF #: 4423-33643 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33643). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33643). |

Diagnostic Study, Performed (V3)

[Diagnostic Study, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01)](#E_Diagnostic_Study_Performed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Diagnostic Study, Performed (V2) | Diagnostic Study, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01 |
| Description | This template represents the QDM data type: Diagnostic Study, Performed. 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. Diagnostic studies may make use of digital images and textual reports. 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 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. Diagnostic studies may make use of digital images and textual reports. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary-function testing, vascular laboratory testing, and others. Timing: The Relevant Period addresses: startTime – when the diagnostic study is initiated; stopTime – when the diagnostic study is completed. Examples:  • Initiation of a treadmill stress test to the time the treadmill stress test has completed • Initiation of the ultrasound study until completion of the ultrasound study QDM Attributes: Result and Result dateTime are represented using the Result (V2) template | This template represents the QDM data type: Diagnostic Study, Performed. 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. Diagnostic studies may make use of digital images and textual reports. 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 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. Diagnostic studies may make use of digital images and textual reports. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary-function testing, vascular laboratory testing, and others. Timing: The Relevant Period addresses: startTime – when the diagnostic study is initiated; stopTime – when the diagnostic study is completed. Relevant dateTime references the time the diagnostic study is performed if it occurs at a single point in time.  Author dateTime references the time the diagnostic study was recorded and applies only when the record has no reference to the time the diagnostic study was performed and only the recorded time is available.  Examples:  • Initiation of a treadmill stress test to the time the treadmill stress test has completed • Initiation of the ultrasound study until completion of the ultrasound study QDM Attributes: Result and Result dateTime are represented using the Result (V2) template |
| CONF #: 4423-35097 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35097) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35098 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35098). |
| CONF #: 4423-35099 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35099) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35100 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35100). |
| CONF #: 4423-35101 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35101). |
| CONF #: 4423-35102 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35102). |
| CONF #: 4423-35103 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35103) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35104 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35104). |
| CONF #: 4423-35105 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35105). |
| CONF #: 4423-35832 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35832) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35833 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35833). |
| CONF #: 4423-35834 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35834). |
| CONF #: 4423-35939 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35939). |
| CONF #: 3346-30784 Removed | SHALL contain exactly one [1..1] title (CONF:3346-30784). |  |
| CONF #: 4423-33605 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33605). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33605). |

Diagnostic Study, Recommended (V4)

[Diagnostic Study, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01)](#E_Diagnostic_Study_Recommended_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Diagnostic Study, Recommended (V3) | Diagnostic Study, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01 |
| CONF #: 4423-35115 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35115) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35116 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35116). |
| CONF #: 4423-35117 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35117) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35118 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35118). |
| CONF #: 4423-35119 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35119) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35120 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35120). |
| CONF #: 4423-35121 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35121). |
| CONF #: 4423-35122 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35122). |
| CONF #: 4423-35123 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35123). |
| CONF #: 4423-35835 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35835) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35836 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35836). |
| CONF #: 4423-35837 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35837). |
| CONF #: 4423-33751 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33751). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33751). |

Encounter, Order (V2)

[Encounter, Order (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01)](#E_Encounter_Order_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Encounter, Order | Encounter, Order (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01 |
| CONF #: 4423-35124 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35124) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35125 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35125). |
| CONF #: 4423-35126 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35126) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35127 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35127). |
| CONF #: 4423-35128 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35128). |
| CONF #: 4423-35129 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35129). |
| CONF #: 4423-35130 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35130) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35131 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35131). |
| CONF #: 4423-35132 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35132). |
| CONF #: 4423-35133 Added |  | MAY contain zero or one [0..1] priorityCode (CONF:4423-35133).  Note: QDM Attribute: Priority |
| CONF #: 4423-35134 Added |  | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35134). |
| CONF #: 4423-35135 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35135). |
| CONF #: 4423-35838 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35838) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35839 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35839). |
| CONF #: 4423-35840 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35840). |
| CONF #: 4423-35940 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35940). |
| CONF #: 3335-30869 Removed | SHALL contain exactly one [1..1] title (CONF:3335-30869). |  |
| CONF #: 4423-33645 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33645). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33645). |

Encounter, Performed (V3)

[Encounter, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01)](#E_Encounter_Performed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Encounter, Performed (V2) | Encounter, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01 |
| CONF #: 4423-35136 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35136) such that it |
| CONF #: 4423-35137 Added |  | SHALL contain exactly one [1..1] time (CONF:4423-35137). |
| CONF #: 4423-35138 Added |  | This time SHALL contain exactly one [1..1] low (CONF:4423-35138).  Note: QDM Attribute: Author dateTime (The Author dateTime addresses when an Encounter is documented. Documentation can occur at the beginning, during, at the end or subsequent to the end of an Encounter. The Author dateTime should be used only if the Relevant Period cannot be obtained) |
| CONF #: 4423-35139 Added |  | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35139). |
| CONF #: 4423-35140 Added |  | This role MAY contain zero or one [0..1] id (CONF:4423-35140). |
| CONF #: 4423-35141 Added |  | MAY contain zero or one [0..1] priorityCode (CONF:4423-35141).  Note: QDM Attribute: Priority |
| CONF #: 4423-35142 Added |  | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35142). |
| CONF #: 4423-35143 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35143) such that it  Note: QDM Attribute: Participant |
| CONF #: 4423-35144 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35144). |
| CONF #: 4423-35145 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35145) such that it  Note: QDM Attribute: Participant |
| CONF #: 4423-35146 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35146). |
| CONF #: 4423-35147 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35147) such that it  Note: QDM Attribute: Participant |
| CONF #: 4423-35148 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35148). |
| CONF #: 4423-35149 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35149). |
| CONF #: 4423-35150 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35150). |
| CONF #: 4423-35151 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35151). |
| CONF #: 4423-35152 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35152). |
| CONF #: 4423-35760 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35760). |
| CONF #: 4423-35841 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35841) such that it  Note: QDM Attribute: Participant |
| CONF #: 4423-35842 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35842). |
| CONF #: 4423-35843 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35843). |
| CONF #: 4423-35941 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35941). |
| CONF #: 3346-33756 Removed | MAY contain zero or one [0..1] outboundRelationship (CONF:3346-33756) such that it  Note: QDM Attribute: Principal Diagnosis |  |
| CONF #: 3346-34656 Removed | MAY contain zero or one [0..1] participation (CONF:3346-34656) such that it |  |
| CONF #: 3346-34657 Removed | SHALL contain exactly one [1..1] time (CONF:3346-34657). |  |
| CONF #: 3346-33760 Removed | SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3346-33760). |  |
| CONF #: 3346-34374 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:3346-34374). |  |
| CONF #: 3346-34375 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:3346-34375). |  |
| CONF #: 3346-31014 Removed | SHALL contain exactly one [1..1] title (CONF:3346-31014). |  |
| CONF #: 3346-34660 Removed | This time SHALL contain exactly one [1..1] low (CONF:3346-34660).  Note: QDM Attribute: Author dateTime (The Author dateTime addresses when an Encounter is documented. Documentation can occur at the beginning, during, at the end or subsequent to the end of an Encounter. The Author dateTime should be used only if the Relevant Period cannot be obtained) |  |
| CONF #: 3346-34661 Removed | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3346-34661). |  |
| CONF #: 3346-34662 Removed | This role MAY contain zero or one [0..1] id (CONF:3346-34662). |  |
| CONF #: 4423-33397 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33397). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33397). |

Encounter, Recommended (V2)

[Encounter, Recommended (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01)](#E_Encounter_Recommended_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Encounter, Recommended | Encounter, Recommended (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01 |
| CONF #: 4423-35160 Added |  | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35160). |
| CONF #: 4423-35161 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35161) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35162 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35162). |
| CONF #: 4423-35163 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35163) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35164 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35164). |
| CONF #: 4423-35165 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35165) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35166 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35166). |
| CONF #: 4423-35167 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35167). |
| CONF #: 4423-35168 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35168). |
| CONF #: 4423-35169 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35169). |
| CONF #: 4423-35844 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35844) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35845 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35845). |
| CONF #: 4423-35846 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35846). |
| CONF #: 4423-35942 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35942). |
| CONF #: 3335-30526 Removed | SHALL contain exactly one [1..1] title (CONF:3335-30526). |  |
| CONF #: 3335-34713 Removed | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3335-34713). |  |
| CONF #: 4423-33694 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33694). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33694). |

Family History (V2)

[Family History (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01)](#E_Family_History_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Family History | Family History (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01 |
| CONF #: 4423-35170 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35170) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35171 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35171). |
| CONF #: 4423-35172 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35172) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35173 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35173). |
| CONF #: 4423-35174 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35174) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35175 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35175). |
| CONF #: 4423-35176 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35176). |
| CONF #: 4423-35177 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35177). |
| CONF #: 4423-35178 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35178). |
| CONF #: 4423-35847 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35847) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35848 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35848). |
| CONF #: 4423-35849 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35849). |
| CONF #: 4423-34383 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-34383). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34383). |

Immunization, Administered (V4)

[Immunization, Administered (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01)](#E_Immunization_Administered_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Immunization, Administered (V3) | Immunization, Administered (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01 |
| Description | This template represents the QDM data type: Immunization, Administered.  Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents. Timing: The time the immunization is administered, i.e., a single point in time, or author datetime. | This template represents the QDM data type: Immunization, Administered.  Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents. Timing: The relevant dateTime references the point in time the immunization is administered. Author dateTime is used only for Negation Rationale, which indicates a one-time documentation of a reason an activity is not performed. Negation of QDM datatype-related actions for a reason always use the author dateTime attribute to reference timing. |
| CONF #: 4423-35179 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35179) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4423-35180 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35180). |
| CONF #: 4423-35181 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35181) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4423-35182 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35182). |
| CONF #: 4423-35184 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35184). |
| CONF #: 4423-35185 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35185). |
| CONF #: 4423-35186 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35186) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4423-35187 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35187). |
| CONF #: 4423-35188 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35188). |
| CONF #: 4423-35560 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35560) such that it |
| CONF #: 4423-35561 Added |  | SHALL contain exactly one [1..1] time (CONF:4423-35561). |
| CONF #: 4423-35562 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35562). |
| CONF #: 4423-35563 Added |  | SHALL contain exactly one [1..1] @typeCode="AUT" Author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35563). |
| CONF #: 4423-35564 Added |  | This time SHALL contain exactly one [1..1] low (CONF:4423-35564).  Note: QDM Attribute: Author dateTime |
| CONF #: 4423-35565 Added |  | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35565). |
| CONF #: 4423-35850 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35850) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4423-35851 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35851). |
| CONF #: 4423-35852 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35852). |
| CONF #: 4423-34384 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34384). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34384). |

Immunization, Order (V3)

[Immunization, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01)](#E_Immunization_Order_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Immunization, Order (V2) | Immunization, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01 |
| CONF #: 4423-35189 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35189) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35190 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35190). |
| CONF #: 4423-35191 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35191) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35192 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35192). |
| CONF #: 4423-35193 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35193). |
| CONF #: 4423-35194 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35194). |
| CONF #: 4423-35195 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35195) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35196 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35196). |
| CONF #: 4423-35197 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35197). |
| CONF #: 4423-35853 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35853) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35854 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35854). |
| CONF #: 4423-35855 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35855). |
| CONF #: 4423-35943 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35943). |
| CONF #: 3346-34029 Removed | SHALL contain exactly one [1..1] title (CONF:3346-34029). |  |
| CONF #: 4423-34385 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34385). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34385). |
| CONF #: 4423-34018 Modified | MAY contain zero or one [0..1] low (CONF:3346-34018).  Note: QDM Attribute: Active datetime | SHALL contain exactly one [1..1] low (CONF:4423-34018).  Note: QDM Attribute: Active dateTime |

Intervention, Order (V2)

[Intervention, Order (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01)](#E_Intervention_Order_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Intervention, Order | Intervention, Order (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01 |
| CONF #: 4423-35210 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35210) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35211 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35211). |
| CONF #: 4423-35212 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35212) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35213 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35213). |
| CONF #: 4423-35214 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35214). |
| CONF #: 4423-35215 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35215). |
| CONF #: 4423-35216 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35216) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35217 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35217). |
| CONF #: 4423-35218 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35218). |
| CONF #: 4423-35856 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35856) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35857 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35857). |
| CONF #: 4423-35858 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35858). |
| CONF #: 4423-35944 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35944). |
| CONF #: 3335-30651 Removed | SHALL contain exactly one [1..1] title (CONF:3335-30651). |  |
| CONF #: 4423-33383 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33383). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33383). |

Intervention, Performed (V3)

[Intervention, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01)](#E_Intervention_Performed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Intervention, Performed (V2) | Intervention, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01 |
| Description | This template represents the QDM data type: Intervention, Performed.  Intervention performed represents an intervention that has been completed. Intervention represents a course of action intended to achieve a result in the care of persons with health problems that does not involve direct physical contact with a patient.  Timing: The Relevant Period addresses: startTime – The time the intervention begins; stopTime – The time the intervention ends. | This template represents the QDM data type: Intervention, Performed.  Intervention performed represents an intervention that has been completed. Intervention represents a course of action intended to achieve a result in the care of persons with health problems that does not involve direct physical contact with a patient.  Timing: The Relevant Period addresses: startTime – The time the intervention begins; stopTime – The time the intervention ends.Relevant Period references a start and stop time for an intervention that occurs over a time interval.  Relevant dateTime references the time the intervention is performed when the intervention occurs at a single point in time.  Author dateTime references the time the intervention was recorded and applies only when the record has no reference to the time the intervention was performed and only the recorded time is available. |
| CONF #: 4423-35219 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35219) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35220 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35220). |
| CONF #: 4423-35221 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35221) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35222 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35222). |
| CONF #: 4423-35223 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35223). |
| CONF #: 4423-35224 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35224). |
| CONF #: 4423-35225 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35225) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35226 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35226). |
| CONF #: 4423-35227 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35227). |
| CONF #: 4423-35859 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35859) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35860 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35860). |
| CONF #: 4423-35861 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35861). |
| CONF #: 4423-35945 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35945). |
| CONF #: 3346-31159 Removed | SHALL contain exactly one [1..1] title (CONF:3346-31159). |  |
| CONF #: 4423-33384 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33384). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33384). |

Intervention, Recommended (V2)

[Intervention, Recommended (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01)](#E_Intervention_Recommended_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Intervention, Recommended | Intervention, Recommended (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01 |
| CONF #: 4423-35228 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35228) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35229 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35229). |
| CONF #: 4423-35230 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35230) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35231 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35231). |
| CONF #: 4423-35232 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35232). |
| CONF #: 4423-35233 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35233). |
| CONF #: 4423-35234 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35234) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35235 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35235). |
| CONF #: 4423-35236 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35236). |
| CONF #: 4423-35862 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35862) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35863 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35863). |
| CONF #: 4423-35864 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35864). |
| CONF #: 4423-35946 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35946). |
| CONF #: 3335-30810 Removed | SHALL contain exactly one [1..1] title (CONF:3335-30810). |  |
| CONF #: 4423-33385 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33385). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33385). |

Laboratory Test, Order (V3)

[Laboratory Test, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01)](#E_Laboratory_Test_Order_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Laboratory Test, Order (V2) | Laboratory Test, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01 |
| CONF #: 4423-35237 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35237) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35238 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35238). |
| CONF #: 4423-35239 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35239) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35240 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35240). |
| CONF #: 4423-35241 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35241). |
| CONF #: 4423-35242 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35242). |
| CONF #: 4423-35243 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35243) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35244 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35244). |
| CONF #: 4423-35245 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35245). |
| CONF #: 4423-35865 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35865) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35866 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35866). |
| CONF #: 4423-35867 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35867). |
| CONF #: 4423-35947 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35947). |
| CONF #: 3372-30398 Removed | SHALL contain exactly one [1..1] title (CONF:3372-30398). |  |
| CONF #: 4423-33649 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3372-33649). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33649). |

Laboratory Test, Performed (V3)

[Laboratory Test, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01)](#E_Laboratory_Test_Performed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Laboratory Test, Performed (V2) | Laboratory Test, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01 |
| Description | This template represents the QDM data type: Laboratory Test, Performed. Laboratory Test represents 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 to see if treatment is working, or monitor the disease over time. Laboratory tests may be performed on specimens not derived from patients (electrolytes or contents of water or consumed fluids, cultures of environment, pets, other animals). Timing: The Relevant Period addresses: startTime – When the laboratory test is initiated (i.e., the time the specimen collection begins); stopTime – when the laboratory test is completed (i.e., the time the specimen collection ends). QDM Attributes: Result and Result dateTime are represented using the Result (V2) template. | This template represents the QDM data type: Laboratory Test, Performed. Laboratory Test represents 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 to see if treatment is working, or monitor the disease over time. Laboratory tests may be performed on specimens not derived from patients (electrolytes or contents of water or consumed fluids, cultures of environment, pets, other animals). Timing: Relevant dateTime references the time the laboratory test is performed if it occurs at a single point in time.  Relevant Period references a start and stop time for a laboratory that occurs over a time interval: The Relevant Period addresses: startTime – When the laboratory test is initiated (i.e., the time the specimen collection begins); stopTime – when the laboratory test is completed (i.e., the time the specimen collection ends) QDM Attributes: Result and Result dateTime are represented using the Result (V2) template. |
| CONF #: 4423-35246 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35246) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35247 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35247). |
| CONF #: 4423-35248 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35248) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35249 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35249). |
| CONF #: 4423-35250 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35250). |
| CONF #: 4423-35251 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35251). |
| CONF #: 4423-35252 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35252) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35253 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35253). |
| CONF #: 4423-35254 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35254). |
| CONF #: 4423-35871 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35871) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35872 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35872). |
| CONF #: 4423-35873 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35873). |
| CONF #: 4423-35948 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35948). |
| CONF #: 3346-30372 Removed | SHALL contain exactly one [1..1] title (CONF:3346-30372). |  |
| CONF #: 4423-33373 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33373). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33373). |

Laboratory Test, Recommended (V3)

[Laboratory Test, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01)](#E_Laboratory_Test_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Laboratory Test, Recommended (V2) | Laboratory Test, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01 |
| CONF #: 4423-35255 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35255) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35256 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35256). |
| CONF #: 4423-35257 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35257) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35258 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35258). |
| CONF #: 4423-35259 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35259). |
| CONF #: 4423-35260 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35260). |
| CONF #: 4423-35261 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35261) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35262 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35262). |
| CONF #: 4423-35263 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35263). |
| CONF #: 4423-35868 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35868) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35869 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35869). |
| CONF #: 4423-35870 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35870). |
| CONF #: 4423-35949 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35949). |
| CONF #: 3372-30423 Removed | SHALL contain exactly one [1..1] title (CONF:3372-30423). |  |
| CONF #: 4423-33692 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33692). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33692). |

Medication, Active (V4)

[Medication, Active (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01)](#E_Medication_Active_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Medication, Active (V3) | Medication, Active (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01 |
| Description | This template represents the QDM data type: Medication, Active. Medication represents clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. Medication active represents medication that is currently being taken by the patient.  Timing: The Relevant Period addresses: StartTime = when the medication is first known to be used (generally the time of entry on the medication list); StopTime = when the medication is discontinued (generally the time discontinuation is recorded on the medication list). Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. | This template represents the QDM data type: Medication, Active. Medication represents clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. Medication active represents medication that is currently being taken by the patient.  Timing: Relevant dateTime references the time the medication is active on the medication record if it was given or taken at a single point in time.  Relevant Period references a start and stop time for an active medication on the medication record that is given or taken over a time interval: StartTime = when the medication is first known to be used (generally the time of entry on the medication list); StopTime = when the medication is discontinued (generally the time discontinuation is recorded on the medication list). Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. |
| CONF #: 4423-35264 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35264) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35265 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35265). |
| CONF #: 4423-35266 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35266) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35267 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35267). |
| CONF #: 4423-35268 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35268). |
| CONF #: 4423-35269 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35269). |
| CONF #: 4423-35270 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35270) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35271 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35271). |
| CONF #: 4423-35272 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35272). |
| CONF #: 4423-35874 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35874) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35875 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35875). |
| CONF #: 4423-35876 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35876). |
| CONF #: 4423-35950 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35950). |
| CONF #: 3372-31957 Removed | SHALL contain exactly one [1..1] title (CONF:3372-31957). |  |
| CONF #: 4423-33376 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33376). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33376). |

Medication, Administered (V4)

[Medication, Administered (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01)](#E_Medication_Administered_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Medication, Administered (V3) | Medication, Administered (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01 |
| Description | This template represents the QDM data type: Medication, Administered.  A medication refers to clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. This template represents a medication that was administered.   Timing: The Relevant Period addresses: StartTime = 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); StopTime = 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) . Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. | This template represents the QDM data type: Medication, Administered.  A medication refers to clinical drugs or chemical substances intended for use in the medical diagnosis, cure, treatment, or prevention of disease. This template represents a medication that was administered.   Timing: Relevant dateTime references the time the medication is administered if it was given or taken at a single point in time.  Relevant Period references a start and stop time for medication administration if the administration event occurred over a time interval (e.g., an intravenous infusion). StartTime = 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); StopTime = 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). Author dateTime references the time the medication administration was recorded and applies only when the record has no reference to the time the medication administration occurred and only the recorded time is available.  Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. |
| CONF #: 4423-35273 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35273) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35274 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35274). |
| CONF #: 4423-35275 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35275) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35276 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35276). |
| CONF #: 4423-35277 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35277). |
| CONF #: 4423-35278 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35278). |
| CONF #: 4423-35279 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35279) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35280 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35280). |
| CONF #: 4423-35281 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35281). |
| CONF #: 4423-35877 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35877) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35878 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35878). |
| CONF #: 4423-35879 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35879). |
| CONF #: 4423-35951 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35951). |
| CONF #: 3372-32057 Removed | SHALL contain exactly one [1..1] title (CONF:3372-32057). |  |
| CONF #: 4423-33386 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33386). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33386). |

Medication, Discharge (V3)

[Medication, Discharge (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01)](#E_Medication_Discharge_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Medication, Discharge (V2) | Medication, Discharge (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01 |
| CONF #: 4423-35282 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35282) such that it  Note: QDM Attribute: daysSupplied |
| CONF #: 4423-35283 Added |  | SHALL contain exactly one [1..1] supplyCriteria (CONF:4423-35283). |
| CONF #: 4423-35284 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35284). |
| CONF #: 4423-35285 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35285) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35286 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35286). |
| CONF #: 4423-35287 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35287) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35288 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35288). |
| CONF #: 4423-35289 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35289). |
| CONF #: 4423-35290 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35290). |
| CONF #: 4423-35291 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35291) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35292 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35292). |
| CONF #: 4423-35293 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35293). |
| CONF #: 4423-35294 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35294) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35295 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35295). |
| CONF #: 4423-35296 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35296) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35297 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35297). |
| CONF #: 4423-35298 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35298). |
| CONF #: 4423-35299 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35299). |
| CONF #: 4423-35300 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35300) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35301 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35301). |
| CONF #: 4423-35302 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35302). |
| CONF #: 4423-35880 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35880) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35881 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35881). |
| CONF #: 4423-35882 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35882) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4423-35883 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35883). |
| CONF #: 4423-35884 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35884). |
| CONF #: 4423-35885 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35885). |
| CONF #: 4423-35952 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35952). |
| CONF #: 3346-32530 Removed | SHALL contain exactly one [1..1] title (CONF:3346-32530). |  |
| CONF #: 3346-34908 Removed | MAY contain zero or one [0..1] outboundRelationship (CONF:3346-34908) such that it  Note: QDM Attribute: daysSupplied |  |
| CONF #: 3346-34909 Removed | SHALL contain exactly one [1..1] supplyCriteria (CONF:3346-34909). |  |
| CONF #: 3346-34910 Removed | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3346-34910). |  |
| CONF #: 4423-33439 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33439). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33439). |

Medication, Dispensed (V3)

[Medication, Dispensed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01)](#E_Medication_Dispensed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Medication, Dispensed (V2) | Medication, Dispensed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01 |
| Description | This template represents the QDM data type: Medication, Dispensed. Medication dispensed is to give medications to a patient or patient proxy based on a prescription. Typically, in the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, medications dispensed are the closest health provider documentation of medication compliance. Timing: The time the medication dispensing event occurs; the author dateTime. Timing: The Relevant Period addresses: 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).  stopTime = when the medication supply provided by the dispensing event is expected to be completed.  Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time. | This template represents the QDM data type: Medication, Dispensed. Medication dispensed is to give medications to a patient or patient proxy based on a prescription. Typically, in the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, medications dispensed are the closest health provider documentation of medication compliance. Timing: Relevant Period references the validity period, i.e., the time period for which the ordered supply is authorized by the prescription authorizing the dispensing event. Relevant dateTime references the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient’s representative. Author dateTime references the date and time the dispensing event is recorded.  Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time. |
| CONF #: 4423-35303 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35303) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4423-35304 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35304). |
| CONF #: 4423-35305 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35305) such that it  Note: QDM Attribute: daysSupplied |
| CONF #: 4423-35306 Added |  | SHALL contain exactly one [1..1] supplyCriteria (CONF:4423-35306). |
| CONF #: 4423-35307 Added |  | MAY contain zero or one [0..1] period (CONF:4423-35307). |
| CONF #: 4423-35308 Added |  | This time SHALL contain exactly one [1..1] low (CONF:4423-35308).  Note: QDM Attribute: Author dateTime |
| CONF #: 4423-35309 Added |  | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4423-35309). |
| CONF #: 4423-35313 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35313). |
| CONF #: 4423-35314 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35314). |
| CONF #: 4423-35315 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35315) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4423-35316 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35316). |
| CONF #: 4423-35317 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35317). |
| CONF #: 4423-35318 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35318) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4423-35319 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35319). |
| CONF #: 4423-35320 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35320) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35321 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35321). |
| CONF #: 4423-35322 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35322) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35323 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35323). |
| CONF #: 4423-35324 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35324). |
| CONF #: 4423-35325 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35325). |
| CONF #: 4423-35326 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35326). |
| CONF #: 4423-35327 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35327) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35328 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35328). |
| CONF #: 4423-35329 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35329). |
| CONF #: 4423-35886 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35886) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4423-35887 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35887). |
| CONF #: 4423-35888 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35888) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35889 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35889). |
| CONF #: 4423-35890 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35890). |
| CONF #: 4423-35891 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35891). |
| CONF #: 4423-35953 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35953). |
| CONF #: 3346-32567 Removed | SHALL contain exactly one [1..1] title (CONF:3346-32567). |  |
| CONF #: 3346-34857 Removed | MAY contain zero or one [0..1] period (CONF:3346-34857). |  |
| CONF #: 3346-34865 Removed | This time SHALL contain exactly one [1..1] low (CONF:3346-34865).  Note: QDM Attribute: Author dateTime |  |
| CONF #: 3346-34866 Removed | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:3346-34866). |  |
| CONF #: 3346-34867 Removed | This role MAY contain zero or one [0..1] id (CONF:3346-34867).  Note: QDM Attribute: dispenserIdentifier |  |
| CONF #: 3346-34911 Removed | MAY contain zero or one [0..1] participation (CONF:3346-34911) such that it |  |
| CONF #: 3346-34912 Removed | SHALL contain exactly one [1..1] role (CONF:3346-34912). |  |
| CONF #: 3346-34913 Removed | MAY contain zero or one [0..1] outboundRelationship (CONF:3346-34913) such that it  Note: QDM Attribute: daysSupplied |  |
| CONF #: 3346-34914 Removed | SHALL contain exactly one [1..1] supplyCriteria (CONF:3346-34914). |  |
| CONF #: 3346-34915 Removed | SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CONF:3346-34915). |  |
| CONF #: 3346-34916 Removed | This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:3346-34916). |  |
| CONF #: 3346-34917 Removed | This role MAY contain zero or one [0..1] id (CONF:3346-34917).  Note: QDM Attribute: prescriberIdentifier |  |
| CONF #: 3346-34918 Removed | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3346-34918). |  |
| CONF #: 4423-33752 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33752). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33752). |

Medication, Order (V4)

[Medication, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01)](#E_Medication_Order_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Medication, Order (V3) | Medication, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01 |
| Description | This template represents the QDM data type: Medication, Order.  This represents an order for a medication, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes. Timing: The time the order is signed; author dateTime. Timing: The Relevant Period addresses: 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).  stopTime = when the medication supply provided by the medication order is expected to be completed, including all fulfillments covered by the number of refills.  Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time. daysSupplied: number of days supplied. id: The unique identifier of a specific instance of any QDM data element for internal reference within the logic expression.  prescriberIdentifier: Identifier is different than id, which is used to differentiate the specific instance of any QDM data element within the CQL logic expression – id does not indicate an identifier for the element; rather it indicates the instance of the element (avoids the need for Occurrence). For example, the prescriberIdentifier attribute allows use of the provider NPI number identifier to track prescription drug payment and utilization by provider or pharmacist in Medicare Part D payment programs. | This template represents the QDM data type: Medication, Order.  This represents an order for a medication, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease and that is not dependent on being metabolized to achieve any of its primary intended purposes. Timing: The time the order is signed; author dateTime. Timing: The Relevant Period addresses: 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).  stopTime = when the medication supply provided by the medication order is expected to be completed, including all fulfillments covered by the number of refills.  Author dateTime references the date and time the medication order (prescription) is authored.  Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. Supply: The quantity (amount) of therapeutic agent that was provided to a patient (i.e., number of doses, number of tablets or pills, volume of medication). Dispensed to a patient to be taken at a later time. daysSupplied: number of days supplied. id: The unique identifier of a specific instance of any QDM data element for internal reference within the logic expression. |
| CONF #: 4423-35330 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35330) such that it |
| CONF #: 4423-35331 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35331). |
| CONF #: 4423-35332 Added |  | This role SHALL contain exactly one [1..1] @classCode="EXLOC" event location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4423-35332). |
| CONF #: 4423-35333 Added |  | This role SHALL contain exactly one [1..1] code (CONF:4423-35333).  Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered. |
| CONF #: 4423-35334 Added |  | SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35334). |
| CONF #: 4423-35335 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35335) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35336 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35336). |
| CONF #: 4423-35337 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35337) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35338 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35338). |
| CONF #: 4423-35339 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35339). |
| CONF #: 4423-35340 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35340). |
| CONF #: 4423-35341 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35341) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35342 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35342). |
| CONF #: 4423-35343 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35343). |
| CONF #: 4423-35892 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35892) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4423-35893 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35893). |
| CONF #: 4423-35894 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35894). |
| CONF #: 4423-35954 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35954). |
| CONF #: 3372-33594 Removed | This role MAY contain zero or one [0..1] id (CONF:3372-33594).  Note: QDM Attribute: prescriberIdentifier |  |
| CONF #: 3372-30186 Removed | SHALL contain exactly one [1..1] title (CONF:3372-30186). |  |
| CONF #: 3372-34860 Removed | MAY contain zero or one [0..1] participation (CONF:3372-34860) such that it |  |
| CONF #: 3372-34861 Removed | SHALL contain exactly one [1..1] role (CONF:3372-34861). |  |
| CONF #: 3372-34862 Removed | SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3372-34862). |  |
| CONF #: 3372-34863 Removed | This role SHALL contain exactly one [1..1] @classCode="EXLOC" event location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3372-34863). |  |
| CONF #: 3372-34864 Removed | This role SHALL contain exactly one [1..1] code (CONF:3372-34864).  Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered. |  |
| CONF #: 4423-33443 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33443). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33443). |

Patient Care Experience (V2)

[Patient Care Experience (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01)](#E_Patient_Care_Experience_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Patient Care Experience | Patient Care Experience (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01 |
| CONF #: 4423-35344 Added |  | SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-35344). |
| CONF #: 4423-35345 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35345).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35346 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35346). |
| CONF #: 4423-35347 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35347).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35348 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35348). |
| CONF #: 4423-35349 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35349).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35350 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35350). |
| CONF #: 4423-35351 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35351). |
| CONF #: 4423-35352 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35352). |
| CONF #: 4423-35353 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35353). |
| CONF #: 4423-35895 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35895).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35896 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35896). |
| CONF #: 4423-35897 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35897). |
| CONF #: 4423-35937 Added |  | SHALL contain exactly one [1..1] title (CONF:4423-35937). |
| CONF #: 3335-32213 Removed | SHALL contain exactly one [1..1] title (CONF:3335-32213). |  |
| CONF #: 3335-34707 Removed | SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34707). |  |
| CONF #: 4423-33700 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33700). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33700). |

Physical Exam, Order (V3)

[Physical Exam, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01)](#E_Physical_Exam_Order_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Physical Exam, Order (V2) | Physical Exam, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01 |
| CONF #: 4423-35373 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35373) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35374 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35374). |
| CONF #: 4423-35375 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35375) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35376 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35376). |
| CONF #: 4423-35377 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35377) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35378 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35378). |
| CONF #: 4423-35379 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35379). |
| CONF #: 4423-35380 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35380). |
| CONF #: 4423-35381 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35381). |
| CONF #: 4423-35898 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35898) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35899 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35899). |
| CONF #: 4423-33437 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33437). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33437). |

Physical Exam, Performed (V3)

[Physical Exam, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01)](#E_Physical_Exam_Performed_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Physical Exam, Performed (V2) | Physical Exam, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01 |
| Description | This template represents the QDM data type: Physical Exam, Performed. This represents that a physical exam has been completed.  Timing: The Relevant Period addresses:startTime – The time the physical examination activity begins; stopTime – The time the physical examination activity ends. QDM Attribute: Result is represented using the Result (V2) template | This template represents the QDM data type: Physical Exam, Performed. This represents that a physical exam has been completed.  Timing: Relevant dateTime references the time the physical exam is performed if it occurs at a single point in time.  Relevant Period references a start and stop time for physical exam procedure that occurs over a time interval: startTime – The time the physical examination activity begins; stopTime – The time the physical examination activity ends. Author dateTime references the time the physical exam event was recorded and applies only when the record has no reference to the time the physical exam event was performed and only the recorded time is available.  QDM Attribute: Result is represented using the Result (V2) template |
| CONF #: 4423-35364 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35364) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35365 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35365). |
| CONF #: 4423-35366 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35366) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35367 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35367). |
| CONF #: 4423-35368 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35368) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35369 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35369). |
| CONF #: 4423-35370 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35370). |
| CONF #: 4423-35371 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35371). |
| CONF #: 4423-35372 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35372). |
| CONF #: 4423-35900 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35900) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35901 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35901). |
| CONF #: 4423-35902 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35902). |
| CONF #: 4423-33428 Modified | SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-33428). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33428). |

Physical Exam, Recommended (V3)

[Physical Exam, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01)](#E_Physical_Exam_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Physical Exam, Recommended (V2) | Physical Exam, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01 |
| CONF #: 4423-35478 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35478) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4423-35479 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35479). |
| CONF #: 4423-35480 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35480) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4423-35481 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35481). |
| CONF #: 4423-35482 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35482). |
| CONF #: 4423-35483 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35483). |
| CONF #: 4423-35484 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35484) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4423-35485 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35485). |
| CONF #: 4423-35486 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35486). |
| CONF #: 4423-35903 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35903) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4423-35904 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35904). |
| CONF #: 4423-35905 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35905). |
| CONF #: 4423-33449 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33449). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33449). |

Principal Diagnosis (RETIRED)

Principal Diagnosis (RETIRED) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2019-05-01)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Retired |
| Name | Principal Diagnosis | Principal Diagnosis (RETIRED) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.122:2019-05-01 |

Procedure, Order (V4)

[Procedure, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01)](#E_Procedure_Order_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Procedure, Order (V3) | Procedure, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01 |
| CONF #: 4423-35463 Added |  | MAY contain zero or one [0..1] priorityCode (CONF:4423-35463).  Note: QDM Attribute: Priority |
| CONF #: 4423-35464 Added |  | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35464). |
| CONF #: 4423-35465 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35465) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35466 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35466). |
| CONF #: 4423-35467 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35467) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35468 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35468). |
| CONF #: 4423-35471 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35471). |
| CONF #: 4423-35472 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35472). |
| CONF #: 4423-35473 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35473). |
| CONF #: 4423-35475 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35475) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35476 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35476). |
| CONF #: 4423-35477 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35477). |
| CONF #: 4423-35764 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35764) such that it  Note: QDM Attribute: Rank |
| CONF #: 4423-35765 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35765). |
| CONF #: 4423-35766 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4423-35766). |
| CONF #: 4423-35906 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35906) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35907 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35907). |
| CONF #: 4423-35908 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35908). |
| CONF #: 3372-31133 Removed | MAY contain zero or one [0..1] priorityCode (CONF:3372-31133).  Note: QDM Attribute: Ordinality |  |
| CONF #: 3372-31134 Removed | The priorityCode, if present, SHOULD contain zero or one [0..1] item (CONF:3372-31134). |  |
| CONF #: 4423-33422 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33422). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33422). |

Procedure, Performed (V4)

[Procedure, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01)](#E_Procedure_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Procedure, Performed (V3) | Procedure, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01 |
| Description | This template represents the QDM data type: Procedure, Performed. 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 or providing treatment. This template represents a procedure that has been performed.  Timing: The Relevant Period addresses: StartTime = the time the procedure begins; StopTime = the time the procedure is completed. | This template represents the QDM data type: Procedure, Performed. 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 or providing treatment. This template represents a procedure that has been performed.  Timing: Relevant dateTime references the time the procedure is performed when the procedure occurs at a single point in time. Relevant Period references a start and stop time for a procedure that occurs over a time interval: StartTime = the time the procedure begins; StopTime = the time the procedure is completed. Author dateTime references the time the procedure was recorded and applies only when the record has no reference to the time the procedure was performed and only the recorded time is available. |
| CONF #: 4423-35448 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35448) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35449 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35449). |
| CONF #: 4423-35450 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35450) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35451 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35451). |
| CONF #: 4423-35452 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35452). |
| CONF #: 4423-35453 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35453). |
| CONF #: 4423-35454 Added |  | MAY contain zero or one [0..1] priorityCode (CONF:4423-35454).  Note: QDM Attribute: Priority |
| CONF #: 4423-35455 Added |  | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35455). |
| CONF #: 4423-35456 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35456) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35457 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35457). |
| CONF #: 4423-35460 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35460). |
| CONF #: 4423-35461 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35461). |
| CONF #: 4423-35767 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35767) such that it  Note: QDM Attribute: Rank |
| CONF #: 4423-35768 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35768). |
| CONF #: 4423-35769 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35769). |
| CONF #: 4423-35909 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35909) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35910 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35910). |
| CONF #: 4423-35911 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35911). |
| CONF #: 3372-31349 Removed | MAY contain zero or one [0..1] priorityCode (CONF:3372-31349).  Note: QDM Attribute: Ordinality |  |
| CONF #: 3372-31350 Removed | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:3372-31350). |  |
| CONF #: 3372-33151 Removed | This item SHOULD contain zero or one [0..1] @valueSet (CONF:3372-33151). |  |
| CONF #: 4423-33398 Modified | This item SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33398). | This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33398). |

Procedure, Recommended (V3)

[Procedure, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01)](#E_Procedure_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Procedure, Recommended (V2) | Procedure, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01 |
| CONF #: 4423-35425 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35425) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35426 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35426). |
| CONF #: 4423-35427 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35427) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35428 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35428). |
| CONF #: 4423-35429 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35429). |
| CONF #: 4423-35430 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35430). |
| CONF #: 4423-35431 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35431) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35432 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35432). |
| CONF #: 4423-35433 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35433). |
| CONF #: 4423-35770 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4423-35770) such that it  Note: QDM Attribute: Rank |
| CONF #: 4423-35771 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35771). |
| CONF #: 4423-35772 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35772). |
| CONF #: 4423-35912 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35912) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35913 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35913). |
| CONF #: 4423-35914 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35914). |
| CONF #: 3372-31222 Removed | MAY contain zero or one [0..1] priorityCode (CONF:3372-31222).  Note: QDM Attribute: Ordinality |  |
| CONF #: 3372-31223 Removed | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:3372-31223). |  |
| CONF #: 3372-33156 Removed | This item SHOULD contain zero or one [0..1] @valueSet (CONF:3372-33156). |  |
| CONF #: 4423-33417 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33417). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33417). |

Program Participation (V3)

[Program Participation (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01)](#E_Program_Participation_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Program Participation (V2) | Program Participation (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01 |
| CONF #: 4423-35416 Added |  | MAY contain zero or more [0..\*] participation (CONF:4423-35416).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35417 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35417). |
| CONF #: 4423-35418 Added |  | MAY contain zero or more [0..\*] participation (CONF:4423-35418).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35419 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35419). |
| CONF #: 4423-35420 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35420). |
| CONF #: 4423-35421 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35421). |
| CONF #: 4423-35422 Added |  | MAY contain zero or more [0..\*] participation (CONF:4423-35422).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35423 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35423). |
| CONF #: 4423-35424 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35424). |
| CONF #: 4423-35918 Added |  | MAY contain zero or more [0..\*] participation (CONF:4423-35918).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35919 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35919). |
| CONF #: 4423-35920 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35920). |
| CONF #: 4423-34825 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-34825). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34825). |

Provider Care Experience (V2)

[Provider Care Experience (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01)](#E_Provider_Care_Experience_V2_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Provider Care Experience | Provider Care Experience (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2017-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01 |
| CONF #: 4423-35354 Added |  | SHALL NOT contain [0..0] @actionNegationInd (CONF:4423-35354). |
| CONF #: 4423-35355 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35355).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35356 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35356). |
| CONF #: 4423-35357 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35357).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35358 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35358). |
| CONF #: 4423-35359 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35359).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35360 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35360). |
| CONF #: 4423-35361 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35361). |
| CONF #: 4423-35362 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35362). |
| CONF #: 4423-35363 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35363). |
| CONF #: 4423-35915 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35915).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35916 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35916). |
| CONF #: 4423-35917 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35917). |
| CONF #: 3335-34708 Removed | SHALL NOT contain [0..0] @actionNegationInd (CONF:3335-34708). |  |
| CONF #: 4423-33701 Modified | SHALL contain exactly one [1..1] @extension="2017-05-01" (CONF:3335-33701). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33701). |

Provider Characteristic (RETIRED)

Provider Characteristic (RETIRED) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2019-05-01)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Retired |
| Name | Provider Characteristic (V2) | Provider Characteristic (RETIRED) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.71:2019-05-01 |
| Description | This template represents the QDM data type: Provider Characteristic.  Provider characteristics refer to specific factors about a provider. Included are demographics, behavioral factors, social, or cultural factors, available resources, and preferences.  Timing: The time the characteristic is authored. | This template represents the QDM data type: Provider Characteristic.  Provider characteristics refer to specific factors about a provider. Included are demographics, behavioral factors, social, or cultural factors, available resources, and preferences.  Timing: The time the characteristic is authored.  Provider Characteristic data type is retired in QDM 5.5 |

Substance, Administered (V4)

[Substance, Administered (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01)](#E_Substance_Administered_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Substance, Administered (V3) | Substance, Administered (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01 |
| Description | This template represents the QDM data type: Substance, Administered.  A substance is a chemical element and its compounds in the natural state or obtained by any manufacturing process (other than pharmaceutical drugs), including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent that may be separated without affecting the stability of the substance or changing its composition. Examples of a substance may include but are not limited to: environmental agents (e.g., pollen, dust) and food (e.g., vitamins).  This template represents a substance that has been administered. Timing: The Relevant Period addresses: StartTime = when a single substance administration event starts (e.g., the initiation of an intravenous infusion, or administering a the substance orally or topically to a patient); StopTime = when a single substance administration event ends (e.g., the end time of the intravenous infusion, or the administration of a substance orally or topically is completed - for oral or topical administration, the start and stop times are the same). Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. | This template represents the QDM data type: Substance, Administered.  A substance is a chemical element and its compounds in the natural state or obtained by any manufacturing process (other than pharmaceutical drugs), including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent that may be separated without affecting the stability of the substance or changing its composition. Examples of a substance may include but are not limited to: environmental agents (e.g., pollen, dust) and food (e.g., vitamins).  This template represents a substance that has been administered. Timing: Relevant dateTime references the time the substance is administered if it was given or taken at a single point in time. Relevant Period references a start and stop time for substance administration if the administration event occurred over a time interval. The Relevant Period addresses: StartTime = when a single substance administration event starts (e.g., the initiation of an intravenous infusion, or administering a the substance orally or topically to a patient); StopTime = when a single substance administration event ends (e.g., the end time of the intravenous infusion, or the administration of a substance orally or topically is completed - for oral or topical administration, the start and stop times are the same). Dosage: Details of how medication is/is to be taken, i.e., the quantity (mg, cc, tablets) to be taken at a single administration. |
| CONF #: 4423-35407 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35407) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35408 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35408). |
| CONF #: 4423-35409 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35409) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35410 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35410). |
| CONF #: 4423-35411 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35411). |
| CONF #: 4423-35412 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35412). |
| CONF #: 4423-35413 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35413) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35414 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35414). |
| CONF #: 4423-35415 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35415). |
| CONF #: 4423-35933 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35933) such that it  Note: QDM Attribute: Performer |
| CONF #: 4423-35934 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35934). |
| CONF #: 4423-35935 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35935). |
| CONF #: 4423-33393 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33393). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33393). |

Substance, Order (V4)

[Substance, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01)](#E_Substance_Order_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Substance, Order (V3) | Substance, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01 |
| CONF #: 4423-35400 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35400) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35401 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35401). |
| CONF #: 4423-35402 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35402) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35404 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35404). |
| CONF #: 4423-35405 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35405). |
| CONF #: 4423-35406 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35406). |
| CONF #: 4423-35566 Added |  | MAY contain zero or one [0..1] effectiveTime (CONF:4423-35566) such that it  Note: QDM Attribute: Frequency |
| CONF #: 4423-35567 Added |  | MAY contain zero or one [0..1] period (CONF:4423-35567). |
| CONF #: 4423-35927 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35927) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35928 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35928). |
| CONF #: 4423-35929 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35929) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35930 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35930). |
| CONF #: 4423-35931 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35931). |
| CONF #: 4423-35932 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35932). |
| CONF #: 4423-33652 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33652). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33652). |

Substance, Recommended (V4)

[Substance, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01)](#E_Substance_Recommended_V4_)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Substance, Recommended (V3) | Substance, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01 |
| CONF #: 4423-35391 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35391) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35392 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35392). |
| CONF #: 4423-35393 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35393) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35394 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35394). |
| CONF #: 4423-35395 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4423-35395). |
| CONF #: 4423-35396 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35396). |
| CONF #: 4423-35397 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35397) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35398 Added |  | SHALL contain exactly one [1..1] patient (CONF:4423-35398). |
| CONF #: 4423-35399 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35399). |
| CONF #: 4423-35568 Added |  | MAY contain zero or one [0..1] effectiveTime (CONF:4423-35568) such that it  Note: QDM Attribute: Frequency |
| CONF #: 4423-35569 Added |  | MAY contain zero or one [0..1] period (CONF:4423-35569). |
| CONF #: 4423-35924 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35924) such that it  Note: QDM Attribute: Requester |
| CONF #: 4423-35925 Added |  | SHALL contain exactly one [1..1] role (CONF:4423-35925). |
| CONF #: 4423-35926 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35926). |
| CONF #: 3372-34479 Removed | This role MAY contain zero or one [0..1] id (CONF:3372-34479). |  |
| CONF #: 4423-33693 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33693). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33693). |

Symptom (V3)

[Symptom (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01)](#E_Symptom_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Symptom (V2) | Symptom (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2017-08-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01 |
| CONF #: 4423-35382 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35382).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35383 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35383). |
| CONF #: 4423-35384 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35384).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35385 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35385). |
| CONF #: 4423-35386 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35386). |
| CONF #: 4423-35387 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35387). |
| CONF #: 4423-35388 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35388).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35389 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35389). |
| CONF #: 4423-35390 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35390). |
| CONF #: 4423-35921 Added |  | MAY contain zero or one [0..1] participation (CONF:4423-35921).  Note: QDM Attribute: Recorder |
| CONF #: 4423-35922 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35922). |
| CONF #: 4423-35923 Added |  | The participation, if present, SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4423-35923). |
| CONF #: 4423-34480 Modified | This item SHALL contain exactly one [1..1] @extension="2017-08-01" (CONF:3346-34480). | This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34480). |

Data Criteria Section (V4)

[Data Criteria Section (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01)](#S_Data_Criteria_Section_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Ballot |
| Name | Data Criteria Section (V3) | Data Criteria Section (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2018-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01 |
| CONF #: 4423-35739 Added |  | MAY contain zero or more [0..\*] entry (CONF:4423-35739) such that it |
| CONF #: 4423-35740 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-35740). |
| CONF #: 4423-35741 Added |  | SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-35741). |
| CONF #: 3372-32871 Removed | MAY contain zero or more [0..\*] entry (CONF:3372-32871) such that it |  |
| CONF #: 3372-32873 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:3372-32873). |  |
| CONF #: 3372-32872 Removed | SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3372-32872). |  |
| CONF #: 4423-33440 Modified | SHALL contain exactly one [1..1] @extension="2018-05-01" (CONF:3372-33440). | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33440). |
| CONF #: 4423-34880 Modified | SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:3372-34880). | SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4423-34880). |

1. Measure Authoring Tool. https://www.emeasuretool.cms.gov/ [↑](#footnote-ref-1)