V3\_IG\_CQL\_HQMF\_R1\_STU\_R4.1\_2021MAR\_Vol3





HL7 Version 3 Implementation Guide:

Clinical Quality Language (CQL) – based Health Quality Measure Format (HQMF)

Release 1, STU Release 4.1 (Universal Realm)

Standard for Trial Use

March 2021

Volume 3 – QDM Templates for CQL-based HQMF

Publication of this standard for trial use and comment has been approved by Health Level Seven International (HL7). This standard is not an accredited American National Standard. The comment period for trial use of this standard shall end 24 months from the date of publication. Suggestions for revision should be submitted at <http://www.hl7.org/dstucomments/index.cfm>.

Following this 24 month evaluation period, this standard, revised as necessary, will be submitted to a normative ballot in preparation for approval by ANSI as an American National Standard. Implementations of this trial use standard shall be viable throughout the normative ballot process and for up to six months after publication of the relevant normative standard.

Copyright © 2020 Health Level Seven International ® ALL RIGHTS RESERVED. The reproduction of this material in any form is strictly forbidden without the written permission of the publisher. HL7 International and Health Level Seven are registered trademarks of Health Level Seven International. Reg. U.S. Pat & TM Off**.**

**IMPORTANT NOTES:**

HL7 licenses its standards and select IP free of charge. **If you did not acquire a free license from HL7 for this document,** you are not authorized to access or make any use of it. To obtain a free license, please visit http://www.HL7.org/implement/standards/index.cfm.

**If you are the individual that obtained the license for this HL7 Standard, specification or other freely licensed work (in each and every instance "Specified Material")**, the following describes the permitted uses of the Material.

**A. HL7 INDIVIDUAL, STUDENT AND HEALTH PROFESSIONAL MEMBERS,** who register and agree to the terms of HL7’s license, are authorized, without additional charge, to read, and to use Specified Material to develop and sell products and services that implement, but do not directly incorporate, the Specified Material in whole or in part without paying license fees to HL7.

INDIVIDUAL, STUDENT AND HEALTH PROFESSIONAL MEMBERS wishing to incorporate additional items of Special Material in whole or part, into products and services, or to enjoy additional authorizations granted to HL7 ORGANIZATIONAL MEMBERS as noted below, must become ORGANIZATIONAL MEMBERS of HL7.

**B. HL7 ORGANIZATION MEMBERS,** who register and agree to the terms of HL7's License, are authorized, without additional charge, on a perpetual (except as provided for in the full license terms governing the Material), non-exclusive and worldwide basis, the right to (a) download, copy (for internal purposes only) and share this Material with your employees and consultants for study purposes, and (b) utilize the Material for the purpose of developing, making, having made, using, marketing, importing, offering to sell or license, and selling or licensing, and to otherwise distribute, Compliant Products, in all cases subject to the conditions set forth in this Agreement and any relevant patent and other intellectual property rights of third parties (which may include members of HL7). No other license, sublicense, or other rights of any kind are granted under this Agreement.

**C. NON-MEMBERS,** who register and agree to the terms of HL7’s IP policy for Specified Material, are authorized, without additional charge, to read and use the Specified Material for evaluating whether to implement, or in implementing, the Specified Material, and to use Specified Material to develop and sell products and services that implement, but do not directly incorporate, the Specified Material in whole or in part.

NON-MEMBERS wishing to incorporate additional items of Specified Material in whole or part, into products and services, or to enjoy the additional authorizations granted to HL7 ORGANIZATIONAL MEMBERS, as noted above, must become ORGANIZATIONAL MEMBERS of HL7.

Please see http://www.HL7.org/legal/ippolicy.cfm for the full license terms governing the Material.

**Ownership. Licensee agrees and acknowledges that HL7 owns all right, title, and interest, in and to the Trademark. Licensee shall take no action contrary to, or inconsistent with, the foregoing.**

**Licensee agrees and acknowledges that HL7 may not own all right, title, and interest, in and to the Materials and that the Materials may contain and/or reference intellectual property owned by third parties (“Third Party IP”). Acceptance of these License Terms does not grant Licensee any rights with respect to Third Party IP. Licensee alone is responsible for identifying and obtaining any necessary licenses or authorizations to utilize Third Party IP in connection with the Materials or otherwise. Any actions, claims or suits brought by a third party resulting from a breach of any Third Party IP right by the Licensee remains the Licensee’s liability.**

Following is a non-exhaustive list of third-party terminologies that may require a separate license:

| **Terminology** | **Owner/Contact** |
| --- | --- |
| Current Procedures Terminology (CPT) code set | American Medical Association https://www.ama-assn.org/practice-management/cpt-licensing |
| SNOMED CT | SNOMED International http://www.snomed.org/snomed-ct/get-snomed-ct or info@ihtsdo.org |
| Logical Observation Identifiers Names & Codes (LOINC) | Regenstrief Institute |
| International Classification of Diseases (ICD) codes | World Health Organization (WHO) |
| NUCC Health Care Provider Taxonomy code set | American Medical Association. Please see www.nucc.org. AMA licensing contact: 312-464-5022 (AMA IP services) |

Table of Contents

[1 Structure of this GUIde 16](#_Toc66700697)

[2 Conformance conventions 17](#_Toc66700698)

[2.1 Templates and Conformance Statements 17](#_Toc66700699)

[2.2 Template Versioning 17](#_Toc66700700)

[2.3 Open and Closed Templates 18](#_Toc66700701)

[2.4 Conformance Verbs 18](#_Toc66700702)

[2.5 Cardinality 18](#_Toc66700703)

[2.6 Vocabulary Conformance 19](#_Toc66700704)

[2.7 Data Types 19](#_Toc66700705)

[2.8 QDM Attribute Mappings 19](#_Toc66700706)

[2.9 Asserting an ActCriteria Not Met with a Reason 19](#_Toc66700707)

[2.10 XPath Notation 20](#_Toc66700708)

[2.11 XML Examples and Sample Documents 20](#_Toc66700709)

[3 Document 21](#_Toc66700710)

[3.1 QDM Templates for CQL-Based HQMF Header (V5) 21](#_Toc66700711)

[4 Section 45](#_Toc66700712)

[4.1 Data Criteria Section (V5) 45](#_Toc66700713)

[4.2 Measure Description Section 65](#_Toc66700714)

[4.3 Measure Observations Section (V2) 67](#_Toc66700715)

[4.4 Population Criteria Section (V2) 70](#_Toc66700716)

[5 Entry 80](#_Toc66700717)

[5.1 Admission Source 80](#_Toc66700718)

[5.2 Adverse Event (V4) 81](#_Toc66700719)

[5.3 Allergy Intolerance (V4) 89](#_Toc66700720)

[5.4 Assessment, Order (V4) 96](#_Toc66700721)

[5.5 Assessment, Performed (V4) 102](#_Toc66700722)

[5.6 Assessment, Recommended (V4) 108](#_Toc66700723)

[5.7 Care Goal (V4) 113](#_Toc66700724)

[5.8 Cause 118](#_Toc66700725)

[5.9 Communication, Performed (V3) 120](#_Toc66700726)

[5.10 Component 128](#_Toc66700727)

[5.10.1 Laboratory Test Component 129](#_Toc66700728)

[5.11 Days Supplied 131](#_Toc66700729)

[5.12 Device, Order (V3) 133](#_Toc66700730)

[5.13 Device, Recommended (V3) 139](#_Toc66700731)

[5.14 Diagnosis (V4) 145](#_Toc66700732)

[5.15 Diagnostic Study, Order (V5) 150](#_Toc66700733)

[5.16 Diagnostic Study, Performed (V4) 155](#_Toc66700734)

[5.17 Diagnostic Study, Recommended (V5) 163](#_Toc66700735)

[5.18 Dosage 167](#_Toc66700736)

[5.19 Encounter Class 169](#_Toc66700737)

[5.20 Encounter Diagnosis 171](#_Toc66700738)

[5.21 Encounter, Order (V3) 174](#_Toc66700739)

[5.22 Encounter, Performed (V4) 180](#_Toc66700740)

[5.23 Encounter, Recommended (V3) 188](#_Toc66700741)

[5.24 Entity - Care Partner (V2) 194](#_Toc66700742)

[5.25 Entity - Location 198](#_Toc66700743)

[5.26 Entity - Organization (V2) 201](#_Toc66700744)

[5.27 Entity - Patient (V2) 204](#_Toc66700745)

[5.28 Entity - Practitioner (V2) 207](#_Toc66700746)

[5.29 Facility Location 212](#_Toc66700747)

[5.30 Family History (V3) 214](#_Toc66700748)

[5.31 Immunization, Administered (V5) 219](#_Toc66700749)

[5.32 Immunization, Order (V4) 225](#_Toc66700750)

[5.33 Incision Datetime 231](#_Toc66700751)

[5.34 Intervention, Order (V3) 233](#_Toc66700752)

[5.35 Intervention, Performed (V4) 238](#_Toc66700753)

[5.36 Intervention, Recommended (V3) 244](#_Toc66700754)

[5.37 Laboratory Test Reference Range 249](#_Toc66700755)

[5.38 Laboratory Test, Order (V4) 251](#_Toc66700756)

[5.39 Laboratory Test, Performed (V4) 256](#_Toc66700757)

[5.40 Laboratory Test, Recommended (V4) 263](#_Toc66700758)

[5.41 Medication, Active (V5) 268](#_Toc66700759)

[5.42 Medication, Administered (V5) 273](#_Toc66700760)

[5.43 Medication, Discharge (V4) 280](#_Toc66700761)

[5.44 Medication, Dispensed (V4) 288](#_Toc66700762)

[5.45 Medication, Order (V5) 298](#_Toc66700763)

[5.46 Patient Care Experience (V3) 306](#_Toc66700764)

[5.47 Patient Characteristic (V2) 310](#_Toc66700765)

[5.48 Patient Characteristic Birth Date 312](#_Toc66700766)

[5.49 Patient Characteristic Clinical Trial Participant 314](#_Toc66700767)

[5.50 Patient Characteristic Ethnicity 317](#_Toc66700768)

[5.51 Patient Characteristic Expired 319](#_Toc66700769)

[5.52 Patient Characteristic Payer 322](#_Toc66700770)

[5.53 Patient Characteristic Race 325](#_Toc66700771)

[5.54 Patient Characteristic Sex 327](#_Toc66700772)

[5.55 Physical Exam, Order (V4) 330](#_Toc66700773)

[5.56 Physical Exam, Performed (V4) 335](#_Toc66700774)

[5.57 Physical Exam, Recommended (V4) 343](#_Toc66700775)

[5.58 Present On Admission Indicator 348](#_Toc66700776)

[5.59 Procedure, Order (V5) 350](#_Toc66700777)

[5.60 Procedure, Performed (V5) 356](#_Toc66700778)

[5.61 Procedure, Recommended (V4) 363](#_Toc66700779)

[5.62 Program Participation (V4) 369](#_Toc66700780)

[5.63 Provider Care Experience (V3) 372](#_Toc66700781)

[5.64 Rank 376](#_Toc66700782)

[5.65 Reason 379](#_Toc66700783)

[5.66 Related Person 381](#_Toc66700784)

[5.67 Related To 384](#_Toc66700785)

[5.68 Result (V2) 386](#_Toc66700786)

[5.69 Severity Observation (V2) 388](#_Toc66700787)

[5.70 Status (V2) 390](#_Toc66700788)

[5.71 Substance, Administered (V5) 392](#_Toc66700789)

[5.72 Substance, Order (V5) 398](#_Toc66700790)

[5.73 Substance, Recommended (V5) 405](#_Toc66700791)

[5.74 Supply 411](#_Toc66700792)

[5.75 Symptom (V4) 413](#_Toc66700793)

[5.76 Target Outcome 417](#_Toc66700794)

[6 Template Ids in This Guide 420](#_Toc66700795)

[7 Code Systems in This Guide 420](#_Toc66700796)

[8 Retired Templates 440](#_Toc66700797)

[9 Changes from Previous Version 441](#_Toc66700798)

[9.1 QDM Templates for CQL-Based HQMF Header (V5) 441](#_Toc66700799)

[9.2 Adverse Event (V4) 442](#_Toc66700800)

[9.3 Allergy Intolerance (V4) 443](#_Toc66700801)

[9.4 Assessment, Order (V4) 444](#_Toc66700802)

[9.5 Assessment, Performed (V4) 446](#_Toc66700803)

[9.6 Assessment, Recommended (V4) 448](#_Toc66700804)

[9.7 Care Goal (V4) 450](#_Toc66700805)

[9.8 Communication, Performed (V3) 452](#_Toc66700806)

[9.9 Device, Applied (RETIRED) 454](#_Toc66700807)

[9.10 Device, Order (V3) 455](#_Toc66700808)

[9.11 Device, Recommended (V3) 457](#_Toc66700809)

[9.12 Diagnosis (V4) 458](#_Toc66700810)

[9.13 Diagnostic Study, Order (V5) 459](#_Toc66700811)

[9.14 Diagnostic Study, Performed (V4) 461](#_Toc66700812)

[9.15 Diagnostic Study, Recommended (V5) 463](#_Toc66700813)

[9.16 Encounter, Order (V3) 465](#_Toc66700814)

[9.17 Encounter, Performed (V4) 466](#_Toc66700815)

[9.18 Encounter, Recommended (V3) 468](#_Toc66700816)

[9.19 Entity - Care Partner (V2) 469](#_Toc66700817)

[9.20 Entity - Organization (V2) 471](#_Toc66700818)

[9.21 Entity - Patient (V2) 472](#_Toc66700819)

[9.22 Entity - Practitioner (V2) 473](#_Toc66700820)

[9.23 Family History (V3) 475](#_Toc66700821)

[9.24 Immunization, Administered (V5) 476](#_Toc66700822)

[9.25 Immunization, Order (V4) 477](#_Toc66700823)

[9.26 Intervention, Order (V3) 478](#_Toc66700824)

[9.27 Intervention, Performed (V4) 480](#_Toc66700825)

[9.28 Intervention, Recommended (V3) 482](#_Toc66700826)

[9.29 Laboratory Test, Order (V4) 484](#_Toc66700827)

[9.30 Laboratory Test, Performed (V4) 486](#_Toc66700828)

[9.31 Laboratory Test, Recommended (V4) 488](#_Toc66700829)

[9.32 Medication, Active (V5) 489](#_Toc66700830)

[9.33 Medication, Administered (V5) 490](#_Toc66700831)

[9.34 Medication, Discharge (V4) 491](#_Toc66700832)

[9.35 Medication, Dispensed (V4) 492](#_Toc66700833)

[9.36 Medication, Order (V5) 494](#_Toc66700834)

[9.37 Patient Care Experience (V3) 495](#_Toc66700835)

[9.38 Physical Exam, Order (V4) 496](#_Toc66700836)

[9.39 Physical Exam, Performed (V4) 497](#_Toc66700837)

[9.40 Physical Exam, Recommended (V4) 499](#_Toc66700838)

[9.41 Procedure, Order (V5) 501](#_Toc66700839)

[9.42 Procedure, Performed (V5) 503](#_Toc66700840)

[9.43 Procedure, Recommended (V4) 505](#_Toc66700841)

[9.44 Program Participation (V4) 507](#_Toc66700842)

[9.45 Provider Care Experience (V3) 509](#_Toc66700843)

[9.46 Substance, Administered (V5) 510](#_Toc66700844)

[9.47 Substance, Order (V5) 511](#_Toc66700845)

[9.48 Substance, Recommended (V5) 512](#_Toc66700846)

[9.49 Symptom (V4) 513](#_Toc66700847)

[9.50 Data Criteria Section (V5) 514](#_Toc66700848)

Table of Figures

[Figure 1: Relationship between QDM, CQL, eCQM, and the volumes of this IG. 16](#_Toc66786249)

[Figure 1: Measure Description Section Example 67](#_Toc66786250)

[Figure 2: Measure Observations Section (V2) Example 69](#_Toc66786251)

[Figure 3: Admission Source Example 81](#_Toc66786252)

[Figure 4: Adverse Event (V4) Example 88](#_Toc66786253)

[Figure 5: Allergy Intolerance (V4) Example 96](#_Toc66786254)

[Figure 6: Assessment, Order (V2) Example 102](#_Toc66786255)

[Figure 7: Assessment, Performed (V4) Example 108](#_Toc66786256)

[Figure 8: Assessment, Recommended (V4) Example 112](#_Toc66786257)

[Figure 9: Care Goal (V4) Example 118](#_Toc66786258)

[Figure 10: Cause Example 120](#_Toc66786259)

[Figure 11: Communication, Performed (V3) Example 127](#_Toc66786260)

[Figure 12: Component Example 129](#_Toc66786261)

[Figure 13: Laboratory Test Component Example 131](#_Toc66786262)

[Figure 14: Days Supplied Example 132](#_Toc66786263)

[Figure 15: Device, Order (V3) Example 138](#_Toc66786264)

[Figure 16: Device, Recommended (V3) Example 144](#_Toc66786265)

[Figure 17: Diagnosis (V4) Example 150](#_Toc66786266)

[Figure 18: Diagnostic Study, Order (V5) Example 155](#_Toc66786267)

[Figure 19: Diagnostic Study, Performed (V4) Example 163](#_Toc66786268)

[Figure 20: Diagnostic Study, Recommended (V5) Example 167](#_Toc66786269)

[Figure 21: Dosage Example 169](#_Toc66786270)

[Figure 22: Encounter Class Example 171](#_Toc66786271)

[Figure 23: Encounter Diagnosis Example 174](#_Toc66786272)

[Figure 24: Encounter, Order (V3) Example 179](#_Toc66786273)

[Figure 25: Encounter, Performed (V4) Example 187](#_Toc66786274)

[Figure 26: Encounter, Recommended (V3) Example 193](#_Toc66786275)

[Figure 27: Entity - Care Partner (V2) Example 197](#_Toc66786276)

[Figure 28: Entity - Location Example 200](#_Toc66786277)

[Figure 29: Entity - Organization (V2) Example 203](#_Toc66786278)

[Figure 30: Entity - Patient (V2) Example 206](#_Toc66786279)

[Figure 31: Entity - Practitioner (V2) Example 212](#_Toc66786280)

[Figure 32: Facility Location Example 214](#_Toc66786281)

[Figure 33: Family History (V3) Example 219](#_Toc66786282)

[Figure 34: Immunization, Administered (V5) Example 225](#_Toc66786283)

[Figure 35: Immunization, Order (V4) Example 231](#_Toc66786284)

[Figure 36: Incision Datetime Example 233](#_Toc66786285)

[Figure 37: Intervention, Order (V3) Example 238](#_Toc66786286)

[Figure 38: Intervention, Performed (V4) Example 244](#_Toc66786287)

[Figure 39: Intervention, Recommended (V3) Example 249](#_Toc66786288)

[Figure 40: Laboratory Test Reference Range Example 251](#_Toc66786289)

[Figure 41: Laboratory Test, Order (V4) Example 256](#_Toc66786290)

[Figure 42: Laboratory Test, Performed (V4) Example 263](#_Toc66786291)

[Figure 43: Laboratory Test, Recommended (V4) Example 267](#_Toc66786292)

[Figure 44: Medication, Active (V5) Example 273](#_Toc66786293)

[Figure 45: Medication, Administered (V5) Example 279](#_Toc66786294)

[Figure 46: Medication, Discharge (V4) Example 288](#_Toc66786295)

[Figure 47: Medication, Dispensed (V4) Example 297](#_Toc66786296)

[Figure 48: Medication, Order (V5) Example 305](#_Toc66786297)

[Figure 49: Patient Care Experience (V3) Example 310](#_Toc66786298)

[Figure 50: Patient Characteristic (V2) Example 312](#_Toc66786299)

[Figure 51: Patient Characteristic Birth Date Example 314](#_Toc66786300)

[Figure 52: Patient Characteristic Clinical Trial Participant Example 317](#_Toc66786301)

[Figure 53: Patient Characteristic Ethnicity Example 319](#_Toc66786302)

[Figure 54: Patient Characteristic Expired Example 322](#_Toc66786303)

[Figure 55: Patient Characteristic Payer Example 324](#_Toc66786304)

[Figure 56: Patient Characteristic Race Example 327](#_Toc66786305)

[Figure 57: Patient Characteristic Sex Example 329](#_Toc66786306)

[Figure 58: Physical Exam, Order (V4) Example 335](#_Toc66786307)

[Figure 59: Physical Exam, Performed (V4) Example 342](#_Toc66786308)

[Figure 60: Physical Exam, Recommended (V4) Example 348](#_Toc66786309)

[Figure 61: Present On Admission Indicator Example 350](#_Toc66786310)

[Figure 62: Procedure, Order (V5) Example 355](#_Toc66786311)

[Figure 63: Procedure, Performed (V5) Example 363](#_Toc66786312)

[Figure 64: Procedure, Recommended (V4) Example 369](#_Toc66786313)

[Figure 65: Program Participation (V4) Example 371](#_Toc66786314)

[Figure 66: Provider Care Experience (V3) Example 376](#_Toc66786315)

[Figure 67: Rank Example 378](#_Toc66786316)

[Figure 68: Reason Example 381](#_Toc66786317)

[Figure 69: Related Person Example 383](#_Toc66786318)

[Figure 70: Related To Example 386](#_Toc66786319)

[Figure 71: Result (V2) Example 388](#_Toc66786320)

[Figure 72: Severity Observation (V2) Example 390](#_Toc66786321)

[Figure 73: Status (V2) Example 392](#_Toc66786322)

[Figure 74: Substance, Administered (V5) Example 398](#_Toc66786323)

[Figure 75: Substance, Order (V5) Example 404](#_Toc66786324)

[Figure 76: Substance, Recommended (V5) Example 411](#_Toc66786325)

[Figure 77: Supply Example 413](#_Toc66786326)

[Figure 78: Symptom (V4) Example 417](#_Toc66786327)

[Figure 79: Target Outcome Example 419](#_Toc66786328)

Table of Tables

[Table 1: QDM Templates for CQL-Based HQMF Header (V5) Contexts 21](#_Toc66786588)

[Table 2: QDM Templates for CQL-Based HQMF Header (V5) Constraints Overview 22](#_Toc66786589)

[Table 3: Data Criteria Section (V5) Contexts 45](#_Toc66786590)

[Table 4: Data Criteria Section (V5) Constraints Overview 47](#_Toc66786591)

[Table 5: Measure Description Section Contexts 65](#_Toc66786592)

[Table 6: Measure Description Section Constraints Overview 66](#_Toc66786593)

[Table 7: Measure Observations Section (V2) Contexts 67](#_Toc66786594)

[Table 8: Measure Observations Section (V2) Constraints Overview 68](#_Toc66786595)

[Table 9: Population Criteria Section (V2) Contexts 70](#_Toc66786596)

[Table 10: Population Criteria Section (V2) Constraints Overview 71](#_Toc66786597)

[Table 11: Admission Source Contexts 80](#_Toc66786598)

[Table 12: Admission Source Constraints Overview 80](#_Toc66786599)

[Table 13: Adverse Event (V4) Contexts 81](#_Toc66786600)

[Table 14: Adverse Event (V4) Constraints Overview 82](#_Toc66786601)

[Table 15: Allergy Intolerance (V4) Contexts 89](#_Toc66786602)

[Table 16: Allergy Intolerance (V4) Constraints Overview 90](#_Toc66786603)

[Table 17: Assessment, Order (V4) Contexts 96](#_Toc66786604)

[Table 18: Assessment, Order (V4) Constraints Overview 98](#_Toc66786605)

[Table 19: Assessment, Performed (V4) Contexts 102](#_Toc66786606)

[Table 20: Assessment, Performed (V4) Constraints Overview 103](#_Toc66786607)

[Table 21: Assessment, Recommended (V4) Contexts 108](#_Toc66786608)

[Table 22: Assessment, Recommended (V4) Constraints Overview 109](#_Toc66786609)

[Table 23: Care Goal (V4) Contexts 113](#_Toc66786610)

[Table 24: Care Goal (V4) Constraints Overview 114](#_Toc66786611)

[Table 25: Cause Contexts 118](#_Toc66786612)

[Table 26: Cause Constraints Overview 119](#_Toc66786613)

[Table 27: Communication, Performed (V3) Contexts 120](#_Toc66786614)

[Table 28: Communication, Performed (V3) Constraints Overview 121](#_Toc66786615)

[Table 29: Component Contexts 128](#_Toc66786616)

[Table 30: Component Constraints Overview 128](#_Toc66786617)

[Table 31: Laboratory Test Component Contexts 129](#_Toc66786618)

[Table 32: Laboratory Test Component Constraints Overview 130](#_Toc66786619)

[Table 33: Days Supplied Contexts 131](#_Toc66786620)

[Table 34: Days Supplied Constraints Overview 132](#_Toc66786621)

[Table 35: Device, Order (V3) Contexts 133](#_Toc66786622)

[Table 36: Device, Order (V3) Constraints Overview 134](#_Toc66786623)

[Table 37: Device, Recommended (V3) Contexts 139](#_Toc66786624)

[Table 38: Device, Recommended (V3) Constraints Overview 140](#_Toc66786625)

[Table 39: Diagnosis (V4) Contexts 145](#_Toc66786626)

[Table 40: Diagnosis (V4) Constraints Overview 146](#_Toc66786627)

[Table 41: Diagnostic Study, Order (V5) Contexts 150](#_Toc66786628)

[Table 42: Diagnostic Study, Order (V5) Constraints Overview 151](#_Toc66786629)

[Table 43: Diagnostic Study, Performed (V4) Contexts 155](#_Toc66786630)

[Table 44: Diagnostic Study, Performed (V4) Constraints Overview 157](#_Toc66786631)

[Table 45: Diagnostic Study, Recommended (V5) Contexts 163](#_Toc66786632)

[Table 46: Diagnostic Study, Recommended (V5) Constraints Overview 164](#_Toc66786633)

[Table 47: Dosage Contexts 167](#_Toc66786634)

[Table 48: Dosage Constraints Overview 168](#_Toc66786635)

[Table 49: Encounter Class Contexts 169](#_Toc66786636)

[Table 50: Encounter Class Constraints Overview 170](#_Toc66786637)

[Table 51: Encounter Diagnosis Contexts 171](#_Toc66786638)

[Table 52: Encounter Diagnosis Constraints Overview 172](#_Toc66786639)

[Table 53: Encounter, Order (V3) Contexts 174](#_Toc66786640)

[Table 54: Encounter, Order (V3) Constraints Overview 175](#_Toc66786641)

[Table 55: Encounter, Performed (V4) Contexts 180](#_Toc66786642)

[Table 56: Encounter, Performed (V4) Constraints Overview 181](#_Toc66786643)

[Table 57: Encounter, Recommended (V3) Contexts 188](#_Toc66786644)

[Table 58: Encounter, Recommended (V3) Constraints Overview 189](#_Toc66786645)

[Table 59: Entity - Care Partner (V2) Contexts 194](#_Toc66786646)

[Table 60: Entity - Care Partner (V2) Constraints Overview 196](#_Toc66786647)

[Table 61: Entity - Location Contexts 198](#_Toc66786648)

[Table 62: Entity - Location Constraints Overview 199](#_Toc66786649)

[Table 63: Entity - Organization (V2) Contexts 201](#_Toc66786650)

[Table 64: Entity - Organization (V2) Constraints Overview 202](#_Toc66786651)

[Table 65: Entity - Patient (V2) Contexts 204](#_Toc66786652)

[Table 66: Entity - Patient (V2) Constraints Overview 205](#_Toc66786653)

[Table 67: Entity - Practitioner (V2) Contexts 207](#_Toc66786654)

[Table 68: Entity - Practitioner (V2) Constraints Overview 209](#_Toc66786655)

[Table 69: Facility Location Contexts 212](#_Toc66786656)

[Table 70: Facility Location Constraints Overview 213](#_Toc66786657)

[Table 71: Family History (V3) Contexts 214](#_Toc66786658)

[Table 72: Family History (V3) Constraints Overview 215](#_Toc66786659)

[Table 73: Immunization, Administered (V5) Contexts 219](#_Toc66786660)

[Table 74: Immunization, Administered (V5) Constraints Overview 220](#_Toc66786661)

[Table 75: Immunization, Order (V4) Contexts 225](#_Toc66786662)

[Table 76: Immunization, Order (V4) Constraints Overview 226](#_Toc66786663)

[Table 77: Incision Datetime Contexts 231](#_Toc66786664)

[Table 78: Incision Datetime Constraints Overview 232](#_Toc66786665)

[Table 79: Intervention, Order (V3) Contexts 233](#_Toc66786666)

[Table 80: Intervention, Order (V3) Constraints Overview 234](#_Toc66786667)

[Table 81: Intervention, Performed (V4) Contexts 238](#_Toc66786668)

[Table 82: Intervention, Performed (V4) Constraints Overview 239](#_Toc66786669)

[Table 83: Intervention, Recommended (V3) Contexts 244](#_Toc66786670)

[Table 84: Intervention, Recommended (V3) Constraints Overview 245](#_Toc66786671)

[Table 85: Laboratory Test Reference Range Contexts 249](#_Toc66786672)

[Table 86: Laboratory Test Reference Range Constraints Overview 250](#_Toc66786673)

[Table 87: Laboratory Test, Order (V4) Contexts 251](#_Toc66786674)

[Table 88: Laboratory Test, Order (V4) Constraints Overview 252](#_Toc66786675)

[Table 89: Laboratory Test, Performed (V4) Contexts 256](#_Toc66786676)

[Table 90: Laboratory Test, Performed (V4) Constraints Overview 257](#_Toc66786677)

[Table 91: Laboratory Test, Recommended (V4) Contexts 263](#_Toc66786678)

[Table 92: Laboratory Test, Recommended (V4) Constraints Overview 264](#_Toc66786679)

[Table 93: Medication, Active (V5) Contexts 268](#_Toc66786680)

[Table 94: Medication, Active (V5) Constraints Overview 269](#_Toc66786681)

[Table 95: Medication, Administered (V5) Contexts 273](#_Toc66786682)

[Table 96: Medication, Administered (V5) Constraints Overview 274](#_Toc66786683)

[Table 97: Medication, Discharge (V4) Contexts 280](#_Toc66786684)

[Table 98: Medication, Discharge (V4) Constraints Overview 281](#_Toc66786685)

[Table 99: Medication, Dispensed (V4) Contexts 288](#_Toc66786686)

[Table 100: Medication, Dispensed (V4) Constraints Overview 290](#_Toc66786687)

[Table 101: Medication, Order (V5) Contexts 298](#_Toc66786688)

[Table 102: Medication, Order (V5) Constraints Overview 299](#_Toc66786689)

[Table 103: Patient Care Experience (V3) Contexts 306](#_Toc66786690)

[Table 104: Patient Care Experience (V3) Constraints Overview 307](#_Toc66786691)

[Table 105: Patient Characteristic (V2) Contexts 310](#_Toc66786692)

[Table 106: Patient Characteristic (V2) Constraints Overview 311](#_Toc66786693)

[Table 107: Patient Characteristic Birth Date Contexts 312](#_Toc66786694)

[Table 108: Patient Characteristic Birth Date Constraints Overview 313](#_Toc66786695)

[Table 109: Patient Characteristic Clinical Trial Participant Contexts 314](#_Toc66786696)

[Table 110: Patient Characteristic Clinical Trial Participant Constraints Overview 315](#_Toc66786697)

[Table 111: Patient Characteristic Ethnicity Contexts 317](#_Toc66786698)

[Table 112: Patient Characteristic Ethnicity Constraints Overview 318](#_Toc66786699)

[Table 113: Patient Characteristic Expired Contexts 319](#_Toc66786700)

[Table 114: Patient Characteristic Expired Constraints Overview 320](#_Toc66786701)

[Table 115: Patient Characteristic Payer Contexts 322](#_Toc66786702)

[Table 116: Patient Characteristic Payer Constraints Overview 323](#_Toc66786703)

[Table 117: Patient Characteristic Race Contexts 325](#_Toc66786704)

[Table 118: Patient Characteristic Race Constraints Overview 326](#_Toc66786705)

[Table 119: Patient Characteristic Sex Contexts 327](#_Toc66786706)

[Table 120: Patient Characteristic Sex Constraints Overview 328](#_Toc66786707)

[Table 121: Physical Exam, Order (V4) Contexts 330](#_Toc66786708)

[Table 122: Physical Exam, Order (V4) Constraints Overview 331](#_Toc66786709)

[Table 123: Physical Exam, Performed (V4) Contexts 335](#_Toc66786710)

[Table 124: Physical Exam, Performed (V4) Constraints Overview 337](#_Toc66786711)

[Table 125: Physical Exam, Recommended (V4) Contexts 343](#_Toc66786712)

[Table 126: Physical Exam, Recommended (V4) Constraints Overview 344](#_Toc66786713)

[Table 127: Present On Admission Indicator Contexts 348](#_Toc66786714)

[Table 128: Present On Admission Indicator Constraints Overview 349](#_Toc66786715)

[Table 129: Procedure, Order (V5) Contexts 350](#_Toc66786716)

[Table 130: Procedure, Order (V5) Constraints Overview 351](#_Toc66786717)

[Table 131: Procedure, Performed (V5) Contexts 356](#_Toc66786718)

[Table 132: Procedure, Performed (V5) Constraints Overview 357](#_Toc66786719)

[Table 133: Procedure, Recommended (V4) Contexts 363](#_Toc66786720)

[Table 134: Procedure, Recommended (V4) Constraints Overview 365](#_Toc66786721)

[Table 135: Program Participation (V4) Contexts 369](#_Toc66786722)

[Table 136: Program Participation (V4) Constraints Overview 370](#_Toc66786723)

[Table 137: Provider Care Experience (V3) Contexts 372](#_Toc66786724)

[Table 138: Provider Care Experience (V3) Constraints Overview 373](#_Toc66786725)

[Table 139: Rank Contexts 376](#_Toc66786726)

[Table 140: Rank Constraints Overview 377](#_Toc66786727)

[Table 141: Reason Contexts 379](#_Toc66786728)

[Table 142: Reason Constraints Overview 380](#_Toc66786729)

[Table 143: Related Person Contexts 381](#_Toc66786730)

[Table 144: Related Person Constraints Overview 382](#_Toc66786731)

[Table 145: Related To Contexts 384](#_Toc66786732)

[Table 146: Related To Constraints Overview 385](#_Toc66786733)

[Table 147: Result (V2) Contexts 386](#_Toc66786734)

[Table 148: Result (V2) Constraints Overview 387](#_Toc66786735)

[Table 149: Severity Observation (V2) Contexts 388](#_Toc66786736)

[Table 150: Severity Observation (V2) Constraints Overview 389](#_Toc66786737)

[Table 151: Status (V2) Contexts 390](#_Toc66786738)

[Table 152: Status (V2) Constraints Overview 391](#_Toc66786739)

[Table 153: Substance, Administered (V5) Contexts 392](#_Toc66786740)

[Table 154: Substance, Administered (V5) Constraints Overview 393](#_Toc66786741)

[Table 155: Substance, Order (V5) Contexts 398](#_Toc66786742)

[Table 156: Substance, Order (V5) Constraints Overview 399](#_Toc66786743)

[Table 157: Substance, Recommended (V5) Contexts 405](#_Toc66786744)

[Table 158: Substance, Recommended (V5) Constraints Overview 406](#_Toc66786745)

[Table 159: Supply Contexts 411](#_Toc66786746)

[Table 160: Supply Constraints Overview 412](#_Toc66786747)

[Table 161: Symptom (V4) Contexts 413](#_Toc66786748)

[Table 162: Symptom (V4) Constraints Overview 414](#_Toc66786749)

[Table 163: Target Outcome Contexts 417](#_Toc66786750)

[Table 164: Target Outcome Constraints Overview 418](#_Toc66786751)

[Table 165: Template List 420](#_Toc66786752)

[Table 166: Template Containments 424](#_Toc66786753)

[Table 167: Code Systems 439](#_Toc66786754)

[Table 168: Retired Templates 440](#_Toc66786755)

# 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 STU 4.1 (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 5.6 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 (V5)

[QualityMeasureDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01 (open)]

Table 1: QDM Templates for CQL-Based HQMF Header (V5) 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 (V5)](#S_Data_Criteria_Section_V5) (required) |

This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.6).

Table 2: QDM Templates for CQL-Based HQMF Header (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| QualityMeasureDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01) | | | | | |
| typeId | 1..1 | SHALL |  | [4499-18786](#C_4499-18786) |  |
| @root | 1..1 | SHALL |  | [4499-18787](#C_4499-18787) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [4499-18788](#C_4499-18788) | POQM\_HD000001UV02 |
| templateId | 1..1 | SHALL |  | [4499-18771](#C_4499-18771) |  |
| item | 1..1 | SHALL |  | [4499-18772](#C_4499-18772) |  |
| @root | 1..1 | SHALL |  | [4499-18773](#C_4499-18773) | 2.16.840.1.113883.10.20.28.1.2 |
| @extension | 0..1 | SHALL |  | [4499-33755](#C_4499-33755) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-18542](#C_4499-18542) |  |
| code | 1..1 | SHALL |  | [4499-18575](#C_4499-18575) |  |
| @code | 1..1 | SHALL |  | [4499-18576](#C_4499-18576) | 57024-2 |
| @codeSystem | 1..1 | SHALL |  | [4499-33757](#C_4499-33757) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [4499-18541](#C_4499-18541) |  |
| text | 0..1 | SHOULD |  | [4499-18578](#C_4499-18578) |  |
| statusCode | 1..1 | SHALL |  | [4499-18579](#C_4499-18579) |  |
| @code | 1..1 | SHALL |  | [4499-32666](#C_4499-32666) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY |  | [4499-18789](#C_4499-18789) |  |
| availabilityTime | 0..1 | MAY |  | [4499-18790](#C_4499-18790) |  |
| languageCode | 0..1 | MAY |  | [4499-18791](#C_4499-18791) |  |
| setId | 1..1 | SHALL |  | [4499-18543](#C_4499-18543) |  |
| versionNumber | 0..1 | SHOULD |  | [4499-18544](#C_4499-18544) |  |
| author | 0..\* | SHOULD |  | [4499-18563](#C_4499-18563) |  |
| responsibleParty | 1..1 | SHALL |  | [4499-18564](#C_4499-18564) |  |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4499-18565](#C_4499-18565) |  |
| id | 1..1 | SHALL |  | [4499-18566](#C_4499-18566) |  |
| item | 1..1 | SHALL |  | [4499-18567](#C_4499-18567) |  |
| name | 1..1 | SHALL |  | [4499-18568](#C_4499-18568) |  |
| custodian | 1..1 | SHALL |  | [4499-18555](#C_4499-18555) |  |
| responsibleParty | 1..1 | SHALL |  | [4499-18556](#C_4499-18556) |  |
| @classCode | 1..1 | SHALL |  | [4499-29933](#C_4499-29933) | ASSIGNED |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4499-18557](#C_4499-18557) |  |
| id | 1..1 | SHALL |  | [4499-18558](#C_4499-18558) |  |
| item | 1..1 | SHALL |  | [4499-18559](#C_4499-18559) |  |
| name | 1..1 | SHALL |  | [4499-18560](#C_4499-18560) |  |
| verifier | 0..1 | SHOULD |  | [4499-18754](#C_4499-18754) |  |
| responsibleParty | 1..1 | SHALL |  | [4499-18755](#C_4499-18755) |  |
| representedResponsibleOrganization | 1..1 | SHALL |  | [4499-18756](#C_4499-18756) |  |
| id | 1..1 | SHALL |  | [4499-18757](#C_4499-18757) |  |
| item | 1..1 | SHALL |  | [4499-18758](#C_4499-18758) |  |
| name | 1..1 | SHALL |  | [4499-18759](#C_4499-18759) |  |
| relatedDocument | 1..\* | SHALL |  | [4499-34627](#C_4499-34627) |  |
| expressionDocument | 1..1 | SHALL |  | [4499-34628](#C_4499-34628) |  |
| text | 1..1 | SHALL |  | [4499-34629](#C_4499-34629) |  |
| @mediaType | 1..1 | SHALL |  | [4499-34631](#C_4499-34631) | text/cql |
| reference | 1..1 | SHALL |  | [4499-34630](#C_4499-34630) |  |
| @value | 1..1 | SHALL |  | [4499-34632](#C_4499-34632) |  |
| setId | 1..1 | SHALL |  | [4499-34903](#C_4499-34903) |  |
| @root | 1..1 | SHALL |  | [4499-34908](#C_4499-34908) |  |
| @extension | 1..1 | SHALL |  | [4499-34909](#C_4499-34909) |  |
| relatedDocument | 1..\* | MAY |  | [4499-34898](#C_4499-34898) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34902](#C_4499-34902) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = XCRPT |
| componentQualityMeasureDocument | 1..1 | SHALL |  | [4499-34904](#C_4499-34904) |  |
| id | 1..1 | SHALL |  | [4499-34905](#C_4499-34905) |  |
| @root | 1..1 | SHALL |  | [4499-34910](#C_4499-34910) |  |
| @identifierName | 0..1 | SHOULD |  | [4499-34911](#C_4499-34911) |  |
| setId | 0..1 | SHOULD |  | [4499-34906](#C_4499-34906) |  |
| @root | 1..1 | SHALL |  | [4499-34912](#C_4499-34912) |  |
| versionNumber | 0..1 | SHOULD |  | [4499-34907](#C_4499-34907) |  |
| controlVariable | 1..1 | SHALL |  | [4499-18545](#C_4499-18545) |  |
| measurePeriod | 1..1 | SHALL |  | [4499-18546](#C_4499-18546) |  |
| code | 1..1 | SHALL |  | [4499-18547](#C_4499-18547) |  |
| @code | 1..1 | SHALL |  | [4499-18548](#C_4499-18548) | MSRTP |
| @codeSystem | 1..1 | SHALL |  | [4499-30056](#C_4499-30056) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL |  | [4499-18550](#C_4499-18550) |  |
| subjectOf | 1..1 | SHALL |  | [4499-18580](#C_4499-18580) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18581](#C_4499-18581) |  |
| code | 1..1 | SHALL |  | [4499-18582](#C_4499-18582) |  |
| @code | 1..1 | SHALL |  | [4499-18583](#C_4499-18583) | MSRSCORE |
| @codeSystem | 1..1 | SHALL |  | [4499-30057](#C_4499-30057) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29935](#C_4499-29935) |  |
| @code | 1..1 | SHALL |  | [4499-29936](#C_4499-29936) | urn:oid:2.16.840.1.113883.1.11.20367 (ObservationMeasureScoring) |
| subjectOf | 1..\* | SHALL |  | [4499-18588](#C_4499-18588) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18590](#C_4499-18590) |  |
| code | 1..1 | SHALL |  | [4499-18591](#C_4499-18591) |  |
| @code | 1..1 | SHALL |  | [4499-29934](#C_4499-29934) | MSRTYPE |
| @codeSystem | 1..1 | SHALL |  | [4499-30058](#C_4499-30058) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29938](#C_4499-29938) |  |
| @code | 1..1 | SHALL |  | [4499-29939](#C_4499-29939) | urn:oid:2.16.840.1.113883.1.11.20368 (ObservationMeasureType) |
| subjectOf | 0..1 | SHOULD |  | [4499-18603](#C_4499-18603) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18604](#C_4499-18604) |  |
| code | 1..1 | SHALL |  | [4499-18605](#C_4499-18605) |  |
| @code | 1..1 | SHALL |  | [4499-29941](#C_4499-29941) | COPY |
| @codeSystem | 1..1 | SHALL |  | [4499-30060](#C_4499-30060) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18609](#C_4499-18609) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18610](#C_4499-18610) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18611](#C_4499-18611) |  |
| code | 1..1 | SHALL |  | [4499-18612](#C_4499-18612) |  |
| @code | 1..1 | SHALL |  | [4499-18613](#C_4499-18613) | CRS |
| @codeSystem | 1..1 | SHALL |  | [4499-30061](#C_4499-30061) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29942](#C_4499-29942) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18617](#C_4499-18617) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18618](#C_4499-18618) |  |
| code | 1..1 | SHALL |  | [4499-18619](#C_4499-18619) |  |
| @code | 1..1 | SHALL |  | [4499-18620](#C_4499-18620) | GUIDE |
| @codeSystem | 1..1 | SHALL |  | [4499-30062](#C_4499-30062) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29943](#C_4499-29943) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18624](#C_4499-18624) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18625](#C_4499-18625) |  |
| code | 1..1 | SHALL |  | [4499-18626](#C_4499-18626) |  |
| @code | 1..1 | SHALL |  | [4499-18627](#C_4499-18627) | DEF |
| @codeSystem | 1..1 | SHALL |  | [4499-30063](#C_4499-30063) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18690](#C_4499-18690) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18630](#C_4499-18630) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18631](#C_4499-18631) |  |
| code | 1..1 | SHALL |  | [4499-18632](#C_4499-18632) |  |
| @code | 1..1 | SHALL |  | [4499-18633](#C_4499-18633) | IDUR |
| @codeSystem | 1..1 | SHALL |  | [4499-30064](#C_4499-30064) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18636](#C_4499-18636) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18637](#C_4499-18637) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18638](#C_4499-18638) |  |
| code | 1..1 | SHALL |  | [4499-18639](#C_4499-18639) |  |
| @code | 1..1 | SHALL |  | [4499-18640](#C_4499-18640) | KEY |
| @codeSystem | 1..1 | SHALL |  | [4499-30065](#C_4499-30065) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| subjectOf | 0..1 | SHOULD |  | [4499-18644](#C_4499-18644) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18645](#C_4499-18645) |  |
| code | 1..1 | SHALL |  | [4499-18646](#C_4499-18646) |  |
| @code | 1..1 | SHALL |  | [4499-18647](#C_4499-18647) | MSRAGG |
| @codeSystem | 1..1 | SHALL |  | [4499-30066](#C_4499-30066) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18649](#C_4499-18649) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18650](#C_4499-18650) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18651](#C_4499-18651) |  |
| code | 1..1 | SHALL |  | [4499-18652](#C_4499-18652) |  |
| @code | 1..1 | SHALL |  | [4499-18653](#C_4499-18653) | MSRADJ |
| @codeSystem | 1..1 | SHALL |  | [4499-30067](#C_4499-30067) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18656](#C_4499-18656) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18657](#C_4499-18657) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18658](#C_4499-18658) |  |
| code | 1..1 | SHALL |  | [4499-18659](#C_4499-18659) |  |
| @code | 1..1 | SHALL |  | [4499-18663](#C_4499-18663) | RAT |
| @codeSystem | 1..1 | SHALL |  | [4499-30068](#C_4499-30068) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18662](#C_4499-18662) |  |
| subjectOf | 0..\* | SHOULD |  | [4499-18664](#C_4499-18664) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18665](#C_4499-18665) |  |
| code | 1..1 | SHALL |  | [4499-18666](#C_4499-18666) |  |
| @code | 1..1 | SHALL |  | [4499-18667](#C_4499-18667) | REF |
| @codeSystem | 1..1 | SHALL |  | [4499-30069](#C_4499-30069) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18668](#C_4499-18668) |  |
| subjectOf | 0..\* | SHOULD |  | [4499-18669](#C_4499-18669) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18670](#C_4499-18670) |  |
| code | 1..1 | SHALL |  | [4499-18671](#C_4499-18671) |  |
| @code | 1..1 | SHALL |  | [4499-18672](#C_4499-18672) | MSRSET |
| @codeSystem | 1..1 | SHALL |  | [4499-30070](#C_4499-30070) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29950](#C_4499-29950) | urn:oid:2.16.840.1.113883.1.11.16927 (RoleClassServiceDeliveryLocation) |
| subjectOf | 0..1 | SHOULD |  | [4499-18674](#C_4499-18674) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18675](#C_4499-18675) |  |
| code | 1..1 | SHALL |  | [4499-18676](#C_4499-18676) |  |
| @code | 1..1 | SHALL |  | [4499-18677](#C_4499-18677) | MSRJUR |
| @codeSystem | 1..1 | SHALL |  | [4499-30071](#C_4499-30071) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29951](#C_4499-29951) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18679](#C_4499-18679) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18680](#C_4499-18680) |  |
| code | 1..1 | SHALL |  | [4499-18681](#C_4499-18681) |  |
| @code | 1..1 | SHALL |  | [4499-29952](#C_4499-29952) | MSRTOPIC |
| @codeSystem | 1..1 | SHALL |  | [4499-30072](#C_4499-30072) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29953](#C_4499-29953) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18691](#C_4499-18691) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18692](#C_4499-18692) |  |
| code | 1..1 | SHALL |  | [4499-18693](#C_4499-18693) |  |
| @code | 1..1 | SHALL |  | [4499-18694](#C_4499-18694) | MSRRPTR |
| @codeSystem | 1..1 | SHALL |  | [4499-30073](#C_4499-30073) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | CD | [4499-29954](#C_4499-29954) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18698](#C_4499-18698) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18699](#C_4499-18699) |  |
| code | 1..1 | SHALL |  | [4499-18700](#C_4499-18700) |  |
| @code | 1..1 | SHALL |  | [4499-18701](#C_4499-18701) | MSRRPTTIME |
| @codeSystem | 1..1 | SHALL |  | [4499-30074](#C_4499-30074) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | PQ | [4499-29955](#C_4499-29955) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18705](#C_4499-18705) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18706](#C_4499-18706) |  |
| code | 1..1 | SHALL |  | [4499-18707](#C_4499-18707) |  |
| @code | 1..1 | SHALL |  | [4499-30075](#C_4499-30075) | USE |
| @codeSystem | 1..1 | SHALL |  | [4499-30076](#C_4499-30076) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18711](#C_4499-18711) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18712](#C_4499-18712) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18713](#C_4499-18713) |  |
| code | 1..1 | SHALL |  | [4499-18714](#C_4499-18714) |  |
| @code | 1..1 | SHALL |  | [4499-18715](#C_4499-18715) | SDE |
| @codeSystem | 1..1 | SHALL |  | [4499-30077](#C_4499-30077) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18718](#C_4499-18718) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18719](#C_4499-18719) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18720](#C_4499-18720) |  |
| code | 1..1 | SHALL |  | [4499-18721](#C_4499-18721) |  |
| @code | 1..1 | SHALL |  | [4499-29956](#C_4499-29956) | TRANF |
| @codeSystem | 1..1 | SHALL |  | [4499-30078](#C_4499-30078) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18725](#C_4499-18725) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18726](#C_4499-18726) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18727](#C_4499-18727) |  |
| code | 1..1 | SHALL |  | [4499-18728](#C_4499-18728) |  |
| @code | 1..1 | SHALL |  | [4499-18729](#C_4499-18729) | STRAT |
| @codeSystem | 1..1 | SHALL |  | [4499-30079](#C_4499-30079) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18732](#C_4499-18732) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18733](#C_4499-18733) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18734](#C_4499-18734) |  |
| code | 1..1 | SHALL |  | [4499-18735](#C_4499-18735) |  |
| @code | 1..1 | SHALL |  | [4499-18736](#C_4499-18736) | IPOP |
| @codeSystem | 1..1 | SHALL |  | [4499-30080](#C_4499-30080) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18739](#C_4499-18739) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18740](#C_4499-18740) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18741](#C_4499-18741) |  |
| code | 1..1 | SHALL |  | [4499-18742](#C_4499-18742) |  |
| @code | 1..1 | SHALL |  | [4499-29957](#C_4499-29957) | DENOM |
| @codeSystem | 1..1 | SHALL |  | [4499-30081](#C_4499-30081) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18746](#C_4499-18746) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-18747](#C_4499-18747) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-18748](#C_4499-18748) |  |
| code | 1..1 | SHALL |  | [4499-18749](#C_4499-18749) |  |
| @code | 1..1 | SHALL |  | [4499-29958](#C_4499-29958) | DENEX |
| @codeSystem | 1..1 | SHALL |  | [4499-30082](#C_4499-30082) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-18753](#C_4499-18753) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29959](#C_4499-29959) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29960](#C_4499-29960) |  |
| code | 1..1 | SHALL |  | [4499-30083](#C_4499-30083) |  |
| @code | 1..1 | SHALL |  | [4499-30084](#C_4499-30084) | NUMER |
| @codeSystem | 1..1 | SHALL |  | [4499-30085](#C_4499-30085) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29962](#C_4499-29962) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29963](#C_4499-29963) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29964](#C_4499-29964) |  |
| code | 1..1 | SHALL |  | [4499-29965](#C_4499-29965) |  |
| @code | 1..1 | SHALL |  | [4499-29967](#C_4499-29967) | NUMEX |
| @codeSystem | 1..1 | SHALL |  | [4499-30086](#C_4499-30086) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29966](#C_4499-29966) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29968](#C_4499-29968) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29969](#C_4499-29969) |  |
| code | 1..1 | SHALL |  | [4499-29970](#C_4499-29970) |  |
| @code | 1..1 | SHALL |  | [4499-29971](#C_4499-29971) | DENEXCEP |
| @codeSystem | 1..1 | SHALL |  | [4499-30087](#C_4499-30087) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29972](#C_4499-29972) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29973](#C_4499-29973) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29974](#C_4499-29974) |  |
| code | 1..1 | SHALL |  | [4499-29975](#C_4499-29975) |  |
| @code | 1..1 | SHALL |  | [4499-29976](#C_4499-29976) | MSRPOPL |
| @codeSystem | 1..1 | SHALL |  | [4499-30088](#C_4499-30088) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29977](#C_4499-29977) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29978](#C_4499-29978) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29979](#C_4499-29979) |  |
| code | 1..1 | SHALL |  | [4499-29980](#C_4499-29980) |  |
| @code | 1..1 | SHALL |  | [4499-29981](#C_4499-29981) | MSRPOPLEX |
| @codeSystem | 1..1 | SHALL |  | [4499-30089](#C_4499-30089) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29982](#C_4499-29982) |  |
| subjectOf | 0..1 | SHOULD |  | [4499-29984](#C_4499-29984) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-29985](#C_4499-29985) |  |
| code | 1..1 | SHALL |  | [4499-29986](#C_4499-29986) |  |
| @code | 1..1 | SHALL |  | [4499-29987](#C_4499-29987) | DISC |
| @codeSystem | 1..1 | SHALL |  | [4499-30090](#C_4499-30090) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) |
| value | 1..1 | SHALL | ED | [4499-29988](#C_4499-29988) |  |
| subjectOf | 0..1 | MAY |  | [4499-34637](#C_4499-34637) |  |
| measureAttribute | 1..1 | SHALL |  | [4499-34638](#C_4499-34638) |  |
| code | 1..1 | SHALL |  | [4499-34639](#C_4499-34639) |  |
| @code | 1..1 | SHALL |  | [4499-34640](#C_4499-34640) | CMPMSRMTH |
| @codeSystem | 1..1 | SHALL |  | [4499-34641](#C_4499-34641) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4499-34642](#C_4499-34642) |  |
| @code | 1..1 | SHALL |  | [4499-34643](#C_4499-34643) |  |
| component | 1..\* | SHALL |  | [4499-18813](#C_4499-18813) |  |
| component | 1..1 | SHALL |  | [4499-18815](#C_4499-18815) |  |
| dataCriteriaSection | 1..1 | SHALL |  | [4499-36338](#C_4499-36338) | [Data Criteria Section (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01](#S_Data_Criteria_Section_V5) |
| component | 1..\* | SHALL |  | [4499-19057](#C_4499-19057) |  |
| populationCriteriaSection | 1..1 | SHALL |  | [4499-19058](#C_4499-19058) | [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 |  | [4499-29989](#C_4499-29989) |  |
| measureDescriptionSection | 1..1 | SHALL |  | [4499-29990](#C_4499-29990) | [Measure Description Section (identifier: urn:oid:2.16.840.1.113883.10.20.28.2.3](#S_Measure_Description_Section) |
| component | 0..1 | MAY |  | [4499-29991](#C_4499-29991) |  |
| measureObservationsSection | 1..1 | SHALL |  | [4499-29992](#C_4499-29992) | [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:4499-18786).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:4499-18787).
   2. This typeId SHALL contain exactly one [1..1] @extension="POQM\_HD000001UV02" (CONF:4499-18788).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-18771).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-18772) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.1.2" (CONF:4499-18773).
      2. SHALL contain zero or one [0..1] @extension="2021-02-01" (CONF:4499-33755).
3. SHALL contain exactly one [1..1] id (CONF:4499-18542).
4. SHALL contain exactly one [1..1] code (CONF:4499-18575).
   1. This code SHALL contain exactly one [1..1] @code="57024-2" Health Quality Measure Document (CONF:4499-18576).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4499-33757).
5. SHALL contain exactly one [1..1] title (CONF:4499-18541).
6. SHOULD contain zero or one [0..1] text (CONF:4499-18578).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-18579).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32666).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-18789).
9. MAY contain zero or one [0..1] availabilityTime (CONF:4499-18790).
10. MAY contain zero or one [0..1] languageCode (CONF:4499-18791).
11. SHALL contain exactly one [1..1] setId (CONF:4499-18543).
12. SHOULD contain zero or one [0..1] versionNumber (CONF:4499-18544).
13. SHOULD contain zero or more [0..\*] author (CONF:4499-18563).
    1. The author, if present, SHALL contain exactly one [1..1] responsibleParty (CONF:4499-18564).
       1. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4499-18565).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4499-18566).
             1. This id SHALL contain exactly one [1..1] item (CONF:4499-18567).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4499-18568).
14. SHALL contain exactly one [1..1] custodian (CONF:4499-18555).
    1. This custodian SHALL contain exactly one [1..1] responsibleParty (CONF:4499-18556).
       1. This responsibleParty SHALL contain exactly one [1..1] @classCode="ASSIGNED" (CONF:4499-29933).
       2. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4499-18557).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4499-18558).
             1. This id SHALL contain exactly one [1..1] item (CONF:4499-18559).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4499-18560).
15. SHOULD contain zero or one [0..1] verifier (CONF:4499-18754).
    1. The verifier, if present, SHALL contain exactly one [1..1] responsibleParty (CONF:4499-18755).
       1. This responsibleParty SHALL contain exactly one [1..1] representedResponsibleOrganization (CONF:4499-18756).
          1. This representedResponsibleOrganization SHALL contain exactly one [1..1] id (CONF:4499-18757).
             1. This id SHALL contain exactly one [1..1] item (CONF:4499-18758).
          2. This representedResponsibleOrganization SHALL contain exactly one [1..1] name (CONF:4499-18759).
16. SHALL contain at least one [1..\*] relatedDocument (CONF:4499-34627) such that it
    1. SHALL contain exactly one [1..1] expressionDocument (CONF:4499-34628).
       1. This expressionDocument SHALL contain exactly one [1..1] text (CONF:4499-34629).
          1. This text SHALL contain exactly one [1..1] @mediaType="text/cql" (CONF:4499-34631).
          2. This text SHALL contain exactly one [1..1] reference (CONF:4499-34630).
             1. This reference SHALL contain exactly one [1..1] @value (CONF:4499-34632).  
                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:4499-34903).
          1. This setId SHALL contain exactly one [1..1] @root (CONF:4499-34908).
          2. This setId SHALL contain exactly one [1..1] @extension (CONF:4499-34909).
17. MAY contain at least one [1..\*] relatedDocument (CONF:4499-34898) 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:4499-34902).
    2. SHALL contain exactly one [1..1] componentQualityMeasureDocument (CONF:4499-34904).
       1. This componentQualityMeasureDocument SHALL contain exactly one [1..1] id (CONF:4499-34905).
          1. This id SHALL contain exactly one [1..1] @root (CONF:4499-34910).  
             Note: The id of the component eCQM
          2. This id SHOULD contain zero or one [0..1] @identifierName (CONF:4499-34911).  
             Note: The title of the component eCQM
       2. This componentQualityMeasureDocument SHOULD contain zero or one [0..1] setId (CONF:4499-34906).
          1. The setId, if present, SHALL contain exactly one [1..1] @root (CONF:4499-34912).  
             Note: The setId of the component eCQM
       3. This componentQualityMeasureDocument SHOULD contain zero or one [0..1] versionNumber (CONF:4499-34907).
          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:4499-34913).
18. SHALL contain exactly one [1..1] controlVariable (CONF:4499-18545).
    1. This controlVariable SHALL contain exactly one [1..1] measurePeriod (CONF:4499-18546).
       1. This measurePeriod SHALL contain exactly one [1..1] code (CONF:4499-18547).
          1. This code SHALL contain exactly one [1..1] @code="MSRTP" Measurement Period (CONF:4499-18548).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30056).
       2. This measurePeriod SHALL contain exactly one [1..1] value (CONF:4499-18550).  
          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:4499-18580) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18581).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18582).
          1. This code SHALL contain exactly one [1..1] @code="MSRSCORE" Measure Scoring (CONF:4499-18583).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30057).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-29935).
          1. This value SHALL contain exactly one [1..1] @code (ValueSet: [ObservationMeasureScoring](#ObservationMeasureScoring) urn:oid:2.16.840.1.113883.1.11.20367) (CONF:4499-29936).
20. SHALL contain at least one [1..\*] subjectOf (CONF:4499-18588) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18590).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18591).
          1. This code SHALL contain exactly one [1..1] @code="MSRTYPE" Measure Type (CONF:4499-29934).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30058).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-29938).
          1. This value SHALL contain exactly one [1..1] @code (ValueSet: [ObservationMeasureType](#ObservationMeasureType) urn:oid:2.16.840.1.113883.1.11.20368) (CONF:4499-29939).
21. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18603) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18604).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18605).
          1. This code SHALL contain exactly one [1..1] @code="COPY" Copyright (CONF:4499-29941).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30060).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18609).
22. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18610) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18611).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18612).
          1. This code SHALL contain exactly one [1..1] @code="CRS" Clinical Recommendation Statement (CONF:4499-18613).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30061).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29942).
23. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18617) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18618).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18619).
          1. This code SHALL contain exactly one [1..1] @code="GUIDE" Guide (CONF:4499-18620).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30062).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29943).
24. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18624) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18625).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18626).
          1. This code SHALL contain exactly one [1..1] @code="DEF" Definition (CONF:4499-18627).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30063).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18690).
25. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18630) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18631).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18632).
          1. This code SHALL contain exactly one [1..1] @code="IDUR" Improvement Notation (CONF:4499-18633).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30064).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18636).
26. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18637) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18638).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18639).
          1. This code SHALL contain exactly one [1..1] @code="KEY" Keyword (CONF:4499-18640).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30065).
27. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18644) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18645).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18646).
          1. This code SHALL contain exactly one [1..1] @code="MSRAGG" Rate Aggregation (CONF:4499-18647).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30066).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18649).
28. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18650) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18651).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18652).
          1. This code SHALL contain exactly one [1..1] @code="MSRADJ" Risk Adjustment (CONF:4499-18653).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30067).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18656).
29. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18657) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18658).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18659).
          1. This code SHALL contain exactly one [1..1] @code="RAT" Rationale (CONF:4499-18663).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30068).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18662).
30. SHOULD contain zero or more [0..\*] subjectOf (CONF:4499-18664) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18665).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18666).
          1. This code SHALL contain exactly one [1..1] @code="REF" Reference (CONF:4499-18667).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30069).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18668).
31. SHOULD contain zero or more [0..\*] subjectOf (CONF:4499-18669) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18670).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18671).
          1. This code SHALL contain exactly one [1..1] @code="MSRSET" Care Setting (CONF:4499-18672).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30070).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (ValueSet: [RoleClassServiceDeliveryLocation](#RoleClassServiceDeliveryLocation) urn:oid:2.16.840.1.113883.1.11.16927) (CONF:4499-29950).
32. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18674) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18675).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18676).
          1. This code SHALL contain exactly one [1..1] @code="MSRJUR" Jurisdiction (CONF:4499-18677).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30071).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-29951).
33. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18679) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18680).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18681).
          1. This code SHALL contain exactly one [1..1] @code="MSRTOPIC" Topic Type (CONF:4499-29952).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30072).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-29953).
34. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18691) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18692).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18693).
          1. This code SHALL contain exactly one [1..1] @code="MSRRPTR" Reporter Type (CONF:4499-18694).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30073).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-29954).
35. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18698) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18699).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18700).
          1. This code SHALL contain exactly one [1..1] @code="MSRRPTTIME" Timeframe for Reporting (CONF:4499-18701).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30074).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:4499-29955).
36. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18705) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18706).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18707).
          1. This code SHALL contain exactly one [1..1] @code="USE" Notice of Use (CONF:4499-30075).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30076).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18711).
37. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18712) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18713).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18714).
          1. This code SHALL contain exactly one [1..1] @code="SDE" Supplemental Data Elements (CONF:4499-18715).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30077).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18718).
38. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18719) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18720).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18721).
          1. This code SHALL contain exactly one [1..1] @code="TRANF" Transmission Format (CONF:4499-29956).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30078).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18725).
39. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18726) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18727).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18728).
          1. This code SHALL contain exactly one [1..1] @code="STRAT" Stratification (CONF:4499-18729).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30079).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18732).
40. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18733) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18734).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18735).
          1. This code SHALL contain exactly one [1..1] @code="IPOP" Initial Population (CONF:4499-18736).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30080).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18739).
41. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18740) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18741).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18742).
          1. This code SHALL contain exactly one [1..1] @code="DENOM" Denominator (CONF:4499-29957).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30081).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18746).
42. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-18747) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-18748).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-18749).
          1. This code SHALL contain exactly one [1..1] @code="DENEX" Denominator Exclusion (CONF:4499-29958).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30082).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-18753).
43. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29959) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29960).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-30083).
          1. This code SHALL contain exactly one [1..1] @code="NUMER" Numerator (CONF:4499-30084).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30085).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29962).
44. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29963) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29964).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-29965).
          1. This code SHALL contain exactly one [1..1] @code="NUMEX" Numerator Exclusion (CONF:4499-29967).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30086).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29966).
45. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29968) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29969).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-29970).
          1. This code SHALL contain exactly one [1..1] @code="DENEXCEP" Denominator Exception (CONF:4499-29971).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30087).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29972).
46. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29973) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29974).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-29975).
          1. This code SHALL contain exactly one [1..1] @code="MSRPOPL" Measure Population (CONF:4499-29976).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30088).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29977).
47. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29978) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29979).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-29980).
          1. This code SHALL contain exactly one [1..1] @code="MSRPOPLEX" Measure Population Exclusions  (CONF:4499-29981).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30089).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29982).
48. SHOULD contain zero or one [0..1] subjectOf (CONF:4499-29984) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-29985).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-29986).
          1. This code SHALL contain exactly one [1..1] @code="DISC" Disclaimer (CONF:4499-29987).
          2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-30090).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="ED" (CONF:4499-29988).
49. MAY contain zero or one [0..1] subjectOf (CONF:4499-34637) such that it
    1. SHALL contain exactly one [1..1] measureAttribute (CONF:4499-34638).
       1. This measureAttribute SHALL contain exactly one [1..1] code (CONF:4499-34639).
          1. This code SHALL contain exactly one [1..1] @code="CMPMSRMTH" composite measure method (CONF:4499-34640).
          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:4499-34641).
       2. This measureAttribute SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-34642).
          1. This value SHALL contain exactly one [1..1] @code (CONF:4499-34643).  
             Note: Will add a valueset that contain the following codes: "OPPORSCR","ALLORNONESCR","LINEARSCR","WEIGHTSCR"
50. SHALL contain at least one [1..\*] component (CONF:4499-18813).
51. SHALL contain exactly one [1..1] component (CONF:4499-18815) such that it
    1. SHALL contain exactly one [1..1] [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01) (CONF:4499-36338).
52. SHALL contain at least one [1..\*] component (CONF:4499-19057) 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:4499-19058).
53. MAY contain zero or one [0..1] component (CONF:4499-29989) 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:4499-29990).
54. MAY contain zero or one [0..1] component (CONF:4499-29991) 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:4499-29992).

# Section

Data Criteria Section (V5)

[dataCriteriaSection: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01 (open)]

Table 3: Data Criteria Section (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) (required) | [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)  [Related Person](#E_Related_Person_) (optional)  [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Family History (V3)](#E_Family_History_V3) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Active (V5)](#E_Medication_Active_V5_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Program Participation (V4)](#E_Program_Participation_V4) (optional)  [Substance, Administered (V5)](#E_Substance_Administered_V5) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Symptom (V4)](#E_Symptom_V4) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional)  [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (optional) |

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

Table 4: Data Criteria Section (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| dataCriteriaSection (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4499-18804](#C_4499-18804) |  |
| item | 1..1 | SHALL |  | [4499-18805](#C_4499-18805) |  |
| @root | 1..1 | SHALL |  | [4499-18806](#C_4499-18806) | 2.16.840.1.113883.10.20.28.2.6 |
| @extension | 1..1 | SHALL |  | [4499-33440](#C_4499-33440) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-18856](#C_4499-18856) |  |
| code | 1..1 | SHALL |  | [4499-18807](#C_4499-18807) |  |
| @code | 1..1 | SHALL |  | [4499-18808](#C_4499-18808) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57025-9 |
| @codeSystem | 1..1 | SHALL |  | [4499-30091](#C_4499-30091) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [4499-18857](#C_4499-18857) |  |
| @value | 1..1 | SHALL |  | [4499-18964](#C_4499-18964) | Data Criteria Section |
| text | 1..1 | SHALL |  | [4499-18858](#C_4499-18858) |  |
| entry | 1..\* | SHALL |  | [4499-18853](#C_4499-18853) |  |
| entry | 0..\* | MAY |  | [4499-34258](#C_4499-34258) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34259](#C_4499-34259) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36284](#C_4499-36284) | [Adverse Event (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01](#E_Adverse_Event_V4) |
| entry | 0..\* | MAY |  | [4499-34261](#C_4499-34261) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34262](#C_4499-34262) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36285](#C_4499-36285) | [Allergy Intolerance (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01](#E_Allergy_Intolerance_V4) |
| entry | 0..\* | MAY |  | [4499-34176](#C_4499-34176) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34177](#C_4499-34177) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36286](#C_4499-36286) | [Assessment, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01](#E_Assessment_Performed_V4) |
| entry | 0..\* | MAY |  | [4499-34179](#C_4499-34179) |  |
| typeId | 1..1 | SHALL |  | [4499-34180](#C_4499-34180) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36287](#C_4499-36287) | [Assessment, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01](#E_Assessment_Recommended_V4) |
| entry | 0..\* | MAY |  | [4499-34678](#C_4499-34678) |  |
| typeId | 1..1 | SHALL |  | [4499-34680](#C_4499-34680) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36288](#C_4499-36288) | [Assessment, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01](#E_Assessment_Order_V4) |
| entry | 0..\* | MAY |  | [4499-32667](#C_4499-32667) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32668](#C_4499-32668) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36289](#C_4499-36289) | [Care Goal (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01](#E_Care_Goal_V4_) |
| entry | 0..\* | MAY |  | [4499-34850](#C_4499-34850) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34852](#C_4499-34852) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4499-36290](#C_4499-36290) | [Communication, Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01](#E_Communication_Performed_V3) |
| entry | 0..\* | MAY |  | [4499-32691](#C_4499-32691) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32692](#C_4499-32692) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4499-36291](#C_4499-36291) | [Device, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01](#E_Device_Order_V3_) |
| entry | 0..\* | MAY |  | [4499-32694](#C_4499-32694) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32695](#C_4499-32695) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4499-36292](#C_4499-36292) | [Device, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01](#E_Device_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4499-34055](#C_4499-34055) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34056](#C_4499-34056) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36293](#C_4499-36293) | [Diagnosis (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01](#E_Diagnosis_V4) |
| entry | 0..\* | MAY |  | [4499-34038](#C_4499-34038) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34039](#C_4499-34039) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36294](#C_4499-36294) | [Family History (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01](#E_Family_History_V3) |
| entry | 0..\* | MAY |  | [4499-32715](#C_4499-32715) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32716](#C_4499-32716) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36295](#C_4499-36295) | [Diagnostic Study, Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01](#E_Diagnostic_Study_Order_V5_) |
| entry | 0..\* | MAY |  | [4499-32718](#C_4499-32718) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32719](#C_4499-32719) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36296](#C_4499-36296) | [Diagnostic Study, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01](#E_Diagnostic_Study_Performed_V4_) |
| entry | 0..\* | MAY |  | [4499-32721](#C_4499-32721) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32722](#C_4499-32722) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36297](#C_4499-36297) | [Diagnostic Study, Recommended (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01](#E_Diagnostic_Study_Recommended_V5_) |
| entry | 0..\* | MAY |  | [4499-32730](#C_4499-32730) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32731](#C_4499-32731) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4499-36298](#C_4499-36298) | [Encounter, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01](#E_Encounter_Order_V3_) |
| entry | 0..\* | MAY |  | [4499-32733](#C_4499-32733) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32734](#C_4499-32734) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4499-36299](#C_4499-36299) | [Encounter, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01](#E_Encounter_Performed_V4_) |
| entry | 0..\* | MAY |  | [4499-32736](#C_4499-32736) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32737](#C_4499-32737) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| encounterCriteria | 1..1 | SHALL |  | [4499-36300](#C_4499-36300) | [Encounter, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01](#E_Encounter_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4499-32757](#C_4499-32757) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32758](#C_4499-32758) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4499-36301](#C_4499-36301) | [Intervention, Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01](#E_Intervention_Order_V3_) |
| entry | 0..\* | MAY |  | [4499-32760](#C_4499-32760) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32761](#C_4499-32761) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4499-36302](#C_4499-36302) | [Intervention, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01](#E_Intervention_Performed_V4_) |
| entry | 0..\* | MAY |  | [4499-32763](#C_4499-32763) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32764](#C_4499-32764) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| actCriteria | 1..1 | SHALL |  | [4499-36303](#C_4499-36303) | [Intervention, Recommended (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01](#E_Intervention_Recommended_V3_) |
| entry | 0..\* | MAY |  | [4499-32775](#C_4499-32775) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32776](#C_4499-32776) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4499-36304](#C_4499-36304) | [Laboratory Test, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01](#E_Laboratory_Test_Order_V4_) |
| entry | 0..\* | MAY |  | [4499-32778](#C_4499-32778) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32779](#C_4499-32779) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36305](#C_4499-36305) | [Laboratory Test, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01](#E_Laboratory_Test_Performed_V4_) |
| entry | 0..\* | MAY |  | [4499-32781](#C_4499-32781) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32782](#C_4499-32782) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36306](#C_4499-36306) | [Laboratory Test, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01](#E_Laboratory_Test_Recommended_V4_) |
| entry | 0..\* | MAY |  | [4499-32787](#C_4499-32787) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32788](#C_4499-32788) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36307](#C_4499-36307) | [Medication, Active (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01](#E_Medication_Active_V5_) |
| entry | 0..\* | MAY |  | [4499-32790](#C_4499-32790) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32791](#C_4499-32791) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36308](#C_4499-36308) | [Medication, Administered (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01](#E_Medication_Administered_V5_) |
| entry | 0..\* | MAY |  | [4499-32797](#C_4499-32797) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32803](#C_4499-32803) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36309](#C_4499-36309) | [Medication, Discharge (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01](#E_Medication_Discharge_V4) |
| entry | 0..\* | MAY |  | [4499-32798](#C_4499-32798) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32805](#C_4499-32805) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36310](#C_4499-36310) | [Medication, Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01](#E_Medication_Order_V5_) |
| entry | 0..\* | MAY |  | [4499-32799](#C_4499-32799) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32807](#C_4499-32807) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| supplyCriteria | 1..1 | SHALL |  | [4499-36311](#C_4499-36311) | [Medication, Dispensed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01](#E_Medication_Dispensed_V4_) |
| entry | 0..\* | MAY |  | [4499-33949](#C_4499-33949) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33950](#C_4499-33950) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36312](#C_4499-36312) | [Immunization, Administered (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01](#E_Immunization_Administered_V5) |
| entry | 0..\* | MAY |  | [4499-33955](#C_4499-33955) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33956](#C_4499-33956) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36313](#C_4499-36313) | [Immunization, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01](#E_Immunization_Order_V4) |
| entry | 0..\* | MAY |  | [4499-32811](#C_4499-32811) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32821](#C_4499-32821) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36314](#C_4499-36314) | [Patient Care Experience (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01](#E_Patient_Care_Experience_V3_) |
| entry | 0..\* | MAY |  | [4499-32812](#C_4499-32812) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32823](#C_4499-32823) | DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32824](#C_4499-32824) | [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 |  | [4499-32813](#C_4499-32813) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32825](#C_4499-32825) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32826](#C_4499-32826) | [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 |  | [4499-32814](#C_4499-32814) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32827](#C_4499-32827) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32828](#C_4499-32828) | [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 |  | [4499-32815](#C_4499-32815) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32829](#C_4499-32829) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32830](#C_4499-32830) | [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 |  | [4499-32816](#C_4499-32816) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32831](#C_4499-32831) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32832](#C_4499-32832) | [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 |  | [4499-32817](#C_4499-32817) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32833](#C_4499-32833) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32834](#C_4499-32834) | [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 |  | [4499-32818](#C_4499-32818) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32835](#C_4499-32835) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32836](#C_4499-32836) | [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 |  | [4499-32819](#C_4499-32819) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32837](#C_4499-32837) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-32838](#C_4499-32838) | [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 |  | [4499-32844](#C_4499-32844) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32845](#C_4499-32845) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36315](#C_4499-36315) | [Physical Exam, Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01](#E_Physical_Exam_Order_V4_) |
| entry | 0..\* | MAY |  | [4499-32847](#C_4499-32847) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32848](#C_4499-32848) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36316](#C_4499-36316) | [Physical Exam, Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01](#E_Physical_Exam_Performed_V4_) |
| entry | 0..\* | MAY |  | [4499-32850](#C_4499-32850) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32851](#C_4499-32851) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36317](#C_4499-36317) | [Physical Exam, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01](#E_Physical_Exam_Recommended_V4_) |
| entry | 0..\* | MAY |  | [4499-32856](#C_4499-32856) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32857](#C_4499-32857) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4499-36325](#C_4499-36325) | [Procedure, Performed (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01](#E_Procedure_Performed_V5_) |
| entry | 0..\* | MAY |  | [4499-32859](#C_4499-32859) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32860](#C_4499-32860) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4499-36318](#C_4499-36318) | [Procedure, Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01](#E_Procedure_Recommended_V4_) |
| entry | 0..\* | MAY |  | [4499-32862](#C_4499-32862) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32863](#C_4499-32863) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| procedureCriteria | 1..1 | SHALL |  | [4499-36319](#C_4499-36319) | [Procedure, Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01](#E_Procedure_Order_V5_) |
| entry | 0..\* | MAY |  | [4499-32868](#C_4499-32868) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32869](#C_4499-32869) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36326](#C_4499-36326) | [Provider Care Experience (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01](#E_Provider_Care_Experience_V3_) |
| entry | 0..\* | MAY |  | [4499-32996](#C_4499-32996) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32997](#C_4499-32997) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36320](#C_4499-36320) | [Substance, Administered (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01](#E_Substance_Administered_V5) |
| entry | 0..\* | MAY |  | [4499-33005](#C_4499-33005) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33006](#C_4499-33006) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36321](#C_4499-36321) | [Substance, Order (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01](#E_Substance_Order_V5) |
| entry | 0..\* | MAY |  | [4499-33011](#C_4499-33011) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33012](#C_4499-33012) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| substanceAdministrationCriteria | 1..1 | SHALL |  | [4499-36322](#C_4499-36322) | [Substance, Recommended (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01](#E_Substance_Recommended_V5_) |
| entry | 0..\* | MAY |  | [4499-34058](#C_4499-34058) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34059](#C_4499-34059) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36323](#C_4499-36323) | [Symptom (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01](#E_Symptom_V4) |
| entry | 0..\* | MAY |  | [4499-34878](#C_4499-34878) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34880](#C_4499-34880) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-36324](#C_4499-36324) | [Program Participation (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01](#E_Program_Participation_V4) |
| entry | 0..\* | MAY |  | [4499-35739](#C_4499-35739) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35741](#C_4499-35741) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV |
| observationCriteria | 1..1 | SHALL |  | [4499-35740](#C_4499-35740) | [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:4499-18804) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4499-18805) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.2.6" (CONF:4499-18806).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33440).
2. MAY contain zero or one [0..1] id (CONF:4499-18856).
3. SHALL contain exactly one [1..1] code (CONF:4499-18807).
   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:4499-18808).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4499-30091).
4. SHALL contain exactly one [1..1] title (CONF:4499-18857).
   1. This title SHALL contain exactly one [1..1] @value="Data Criteria Section" (CONF:4499-18964).
5. SHALL contain exactly one [1..1] text (CONF:4499-18858).
6. SHALL contain at least one [1..\*] entry (CONF:4499-18853).
7. MAY contain zero or more [0..\*] entry (CONF:4499-34258) 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:4499-34259).
   2. SHALL contain exactly one [1..1] [Adverse Event (V4)](#E_Adverse_Event_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01) (CONF:4499-36284).
8. MAY contain zero or more [0..\*] entry (CONF:4499-34261) 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:4499-34262).
   2. SHALL contain exactly one [1..1] [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01) (CONF:4499-36285).
9. MAY contain zero or more [0..\*] entry (CONF:4499-34176) 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:4499-34177).
   2. SHALL contain exactly one [1..1] [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01) (CONF:4499-36286).
10. MAY contain zero or more [0..\*] entry (CONF:4499-34179) 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:4499-34180).
    2. SHALL contain exactly one [1..1] [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01) (CONF:4499-36287).
11. MAY contain zero or more [0..\*] entry (CONF:4499-34678) 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:4499-34680).
    2. SHALL contain exactly one [1..1] [Assessment, Order (V4)](#E_Assessment_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01) (CONF:4499-36288).
12. MAY contain zero or more [0..\*] entry (CONF:4499-32667) 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:4499-32668).
    2. SHALL contain exactly one [1..1] [Care Goal (V4)](#E_Care_Goal_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01) (CONF:4499-36289).
13. MAY contain zero or more [0..\*] entry (CONF:4499-34850) 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:4499-34852).
    2. SHALL contain exactly one [1..1] [Communication, Performed (V3)](#E_Communication_Performed_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01) (CONF:4499-36290).
14. MAY contain zero or more [0..\*] entry (CONF:4499-32691) 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:4499-32692).
    2. SHALL contain exactly one [1..1] [Device, Order (V3)](#E_Device_Order_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01) (CONF:4499-36291).
15. MAY contain zero or more [0..\*] entry (CONF:4499-32694) 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:4499-32695).
    2. SHALL contain exactly one [1..1] [Device, Recommended (V3)](#E_Device_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01) (CONF:4499-36292).
16. MAY contain zero or more [0..\*] entry (CONF:4499-34055) 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:4499-34056).
    2. SHALL contain exactly one [1..1] [Diagnosis (V4)](#E_Diagnosis_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01) (CONF:4499-36293).
17. MAY contain zero or more [0..\*] entry (CONF:4499-34038) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4499-34039).
    2. SHALL contain exactly one [1..1] [Family History (V3)](#E_Family_History_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01) (CONF:4499-36294).
18. MAY contain zero or more [0..\*] entry (CONF:4499-32715) 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:4499-32716).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01) (CONF:4499-36295).
19. MAY contain zero or more [0..\*] entry (CONF:4499-32718) 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:4499-32719).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01) (CONF:4499-36296).
20. MAY contain zero or more [0..\*] entry (CONF:4499-32721) 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:4499-32722).
    2. SHALL contain exactly one [1..1] [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01) (CONF:4499-36297).
21. MAY contain zero or more [0..\*] entry (CONF:4499-32730) 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:4499-32731).
    2. SHALL contain exactly one [1..1] [Encounter, Order (V3)](#E_Encounter_Order_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01) (CONF:4499-36298).
22. MAY contain zero or more [0..\*] entry (CONF:4499-32733) 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:4499-32734).
    2. SHALL contain exactly one [1..1] [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01) (CONF:4499-36299).
23. MAY contain zero or more [0..\*] entry (CONF:4499-32736) 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:4499-32737).
    2. SHALL contain exactly one [1..1] [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01) (CONF:4499-36300).
24. MAY contain zero or more [0..\*] entry (CONF:4499-32757) 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:4499-32758).
    2. SHALL contain exactly one [1..1] [Intervention, Order (V3)](#E_Intervention_Order_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01) (CONF:4499-36301).
25. MAY contain zero or more [0..\*] entry (CONF:4499-32760) 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:4499-32761).
    2. SHALL contain exactly one [1..1] [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01) (CONF:4499-36302).
26. MAY contain zero or more [0..\*] entry (CONF:4499-32763) 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:4499-32764).
    2. SHALL contain exactly one [1..1] [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01) (CONF:4499-36303).
27. MAY contain zero or more [0..\*] entry (CONF:4499-32775) 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:4499-32776).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01) (CONF:4499-36304).
28. MAY contain zero or more [0..\*] entry (CONF:4499-32778) 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:4499-32779).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01) (CONF:4499-36305).
29. MAY contain zero or more [0..\*] entry (CONF:4499-32781) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4499-32782).
    2. SHALL contain exactly one [1..1] [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01) (CONF:4499-36306).
30. MAY contain zero or more [0..\*] entry (CONF:4499-32787) 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:4499-32788).
    2. SHALL contain exactly one [1..1] [Medication, Active (V5)](#E_Medication_Active_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01) (CONF:4499-36307).
31. MAY contain zero or more [0..\*] entry (CONF:4499-32790) 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:4499-32791).
    2. SHALL contain exactly one [1..1] [Medication, Administered (V5)](#E_Medication_Administered_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01) (CONF:4499-36308).
32. MAY contain zero or more [0..\*] entry (CONF:4499-32797) 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:4499-32803).
    2. SHALL contain exactly one [1..1] [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01) (CONF:4499-36309).
33. MAY contain zero or more [0..\*] entry (CONF:4499-32798) 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:4499-32805).
    2. SHALL contain exactly one [1..1] [Medication, Order (V5)](#E_Medication_Order_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01) (CONF:4499-36310).
34. MAY contain zero or more [0..\*] entry (CONF:4499-32799) 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:4499-32807).
    2. SHALL contain exactly one [1..1] [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01) (CONF:4499-36311).
35. MAY contain zero or more [0..\*] entry (CONF:4499-33949) 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:4499-33950).
    2. SHALL contain exactly one [1..1] [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01) (CONF:4499-36312).
36. MAY contain zero or more [0..\*] entry (CONF:4499-33955) 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:4499-33956).
    2. SHALL contain exactly one [1..1] [Immunization, Order (V4)](#E_Immunization_Order_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01) (CONF:4499-36313).
37. MAY contain zero or more [0..\*] entry (CONF:4499-32811) 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:4499-32821).
    2. SHALL contain exactly one [1..1] [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01) (CONF:4499-36314).
38. MAY contain zero or more [0..\*] entry (CONF:4499-32812) such that it
    1. SHALL contain exactly one [1..1] @typeCode="DRIV" Is Derived From (CONF:4499-32823).
    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:4499-32824).
39. MAY contain zero or more [0..\*] entry (CONF:4499-32813) 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:4499-32825).
    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:4499-32826).
40. MAY contain zero or more [0..\*] entry (CONF:4499-32814) 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:4499-32827).
    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:4499-32828).
41. MAY contain zero or more [0..\*] entry (CONF:4499-32815) 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:4499-32829).
    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:4499-32830).
42. MAY contain zero or more [0..\*] entry (CONF:4499-32816) 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:4499-32831).
    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:4499-32832).
43. MAY contain zero or more [0..\*] entry (CONF:4499-32817) 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:4499-32833).
    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:4499-32834).
44. MAY contain zero or more [0..\*] entry (CONF:4499-32818) 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:4499-32835).
    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:4499-32836).
45. MAY contain zero or more [0..\*] entry (CONF:4499-32819) 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:4499-32837).
    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:4499-32838).
46. MAY contain zero or more [0..\*] entry (CONF:4499-32844) 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:4499-32845).
    2. SHALL contain exactly one [1..1] [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01) (CONF:4499-36315).
47. MAY contain zero or more [0..\*] entry (CONF:4499-32847) 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:4499-32848).
    2. SHALL contain exactly one [1..1] [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01) (CONF:4499-36316).
48. MAY contain zero or more [0..\*] entry (CONF:4499-32850) 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:4499-32851).
    2. SHALL contain exactly one [1..1] [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01) (CONF:4499-36317).
49. MAY contain zero or more [0..\*] entry (CONF:4499-32856) 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:4499-32857).
    2. SHALL contain exactly one [1..1] [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01) (CONF:4499-36325).
50. MAY contain zero or more [0..\*] entry (CONF:4499-32859) 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:4499-32860).
    2. SHALL contain exactly one [1..1] [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01) (CONF:4499-36318).
51. MAY contain zero or more [0..\*] entry (CONF:4499-32862) 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:4499-32863).
    2. SHALL contain exactly one [1..1] [Procedure, Order (V5)](#E_Procedure_Order_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01) (CONF:4499-36319).
52. MAY contain zero or more [0..\*] entry (CONF:4499-32868) 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:4499-32869).
    2. SHALL contain exactly one [1..1] [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01) (CONF:4499-36326).
53. MAY contain zero or more [0..\*] entry (CONF:4499-32996) 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:4499-32997).
    2. SHALL contain exactly one [1..1] [Substance, Administered (V5)](#E_Substance_Administered_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01) (CONF:4499-36320).
54. MAY contain zero or more [0..\*] entry (CONF:4499-33005) 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:4499-33006).
    2. SHALL contain exactly one [1..1] [Substance, Order (V5)](#E_Substance_Order_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01) (CONF:4499-36321).
55. MAY contain zero or more [0..\*] entry (CONF:4499-33011) 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:4499-33012).
    2. SHALL contain exactly one [1..1] [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01) (CONF:4499-36322).
56. MAY contain zero or more [0..\*] entry (CONF:4499-34058) 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:4499-34059).
    2. SHALL contain exactly one [1..1] [Symptom (V4)](#E_Symptom_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01) (CONF:4499-36323).
57. MAY contain zero or more [0..\*] entry (CONF:4499-34878) 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:4499-34880).
    2. SHALL contain exactly one [1..1] [Program Participation (V4)](#E_Program_Participation_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01) (CONF:4499-36324).
58. MAY contain zero or more [0..\*] entry (CONF:4499-35739) 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:4499-35741).
    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:4499-35740).

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 (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) (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 1: 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 (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) (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 (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) (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 (V4)](#E_Encounter_Performed_V4_) (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 3: 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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01 (open)]

Table 13: Adverse Event (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34210](#C_4499-34210) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34211](#C_4499-34211) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34758](#C_4499-34758) |  |
| templateId | 1..1 | SHALL |  | [4499-34183](#C_4499-34183) |  |
| item | 1..1 | SHALL |  | [4499-34184](#C_4499-34184) |  |
| @root | 1..1 | SHALL |  | [4499-34194](#C_4499-34194) | 2.16.840.1.113883.10.20.28.4.120 |
| @extension | 1..1 | SHALL |  | [4499-34531](#C_4499-34531) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34212](#C_4499-34212) |  |
| code | 1..1 | SHALL |  | [4499-34185](#C_4499-34185) |  |
| @code | 1..1 | SHALL |  | [4499-34196](#C_4499-34196) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4499-34197](#C_4499-34197) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4499-34213](#C_4499-34213) |  |
| statusCode | 1..1 | SHALL |  | [4499-34186](#C_4499-34186) |  |
| @code | 1..1 | SHALL |  | [4499-34198](#C_4499-34198) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34187](#C_4499-34187) |  |
| low | 1..1 | SHALL |  | [4499-34199](#C_4499-34199) |  |
| value | 1..1 | SHALL | CD | [4499-34188](#C_4499-34188) |  |
| @code | 1..1 | SHALL |  | [4499-34201](#C_4499-34201) | 281647001 |
| @codeSystem | 1..1 | SHALL |  | [4499-34202](#C_4499-34202) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participation | 1..1 | SHALL |  | [4499-34189](#C_4499-34189) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34207](#C_4499-34207) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-34190](#C_4499-34190) |  |
| @classCode | 1..1 | SHALL |  | [4499-34206](#C_4499-34206) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [4499-34191](#C_4499-34191) |  |
| @classCode | 1..1 | SHALL |  | [4499-34204](#C_4499-34204) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-34205](#C_4499-34205) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-34192](#C_4499-34192) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34203](#C_4499-34203) |  |
| participation | 0..1 | MAY |  | [4499-34692](#C_4499-34692) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34694](#C_4499-34694) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34695](#C_4499-34695) |  |
| role | 1..1 | SHALL |  | [4499-34693](#C_4499-34693) |  |
| @classCode | 1..1 | SHALL |  | [4499-34696](#C_4499-34696) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34697](#C_4499-34697) |  |
| participation | 0..\* | MAY |  | [4499-34500](#C_4499-34500) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34501](#C_4499-34501) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| role | 1..1 | SHALL |  | [4499-34502](#C_4499-34502) | [Facility Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01](#E_Facility_Location) |
| participation | 0..\* | MAY |  | [4499-34966](#C_4499-34966) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34970](#C_4499-34970) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36017](#C_4499-36017) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-34968](#C_4499-34968) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34971](#C_4499-34971) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36018](#C_4499-36018) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..1 | MAY |  | [4499-34972](#C_4499-34972) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34974](#C_4499-34974) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36019](#C_4499-36019) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-35795](#C_4499-35795) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35797](#C_4499-35797) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36020](#C_4499-36020) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34497](#C_4499-34497) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34498](#C_4499-34498) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34499](#C_4499-34499) | [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 |  | [4499-34682](#C_4499-34682) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34686](#C_4499-34686) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34683](#C_4499-34683) |  |
| @classCode | 1..1 | SHALL |  | [4499-34687](#C_4499-34687) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34688](#C_4499-34688) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| code | 1..1 | SHALL |  | [4499-34684](#C_4499-34684) |  |
| @code | 1..1 | SHALL |  | [4499-34689](#C_4499-34689) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4499-34690](#C_4499-34690) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4499-34685](#C_4499-34685) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34691](#C_4499-34691) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4499-34210).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34211).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34758).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34183).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34184) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.120" (CONF:4499-34194).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34531).
5. SHALL contain exactly one [1..1] id (CONF:4499-34212).
6. SHALL contain exactly one [1..1] code (CONF:4499-34185).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4499-34196).
   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:4499-34197).
7. SHALL contain exactly one [1..1] title (CONF:4499-34213).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34186).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34198).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34187) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4499-34199).  
      Note: QDM Attribute: Relevant dateTime (references the adverse event occurred)
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-34188).
    1. This value SHALL contain exactly one [1..1] @code="281647001" Adverse Reaction (CONF:4499-34201).
    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:4499-34202).
11. SHALL contain exactly one [1..1] participation (CONF:4499-34189) 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:4499-34207).
    2. SHALL contain exactly one [1..1] role (CONF:4499-34190).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34206).
       2. This role SHALL contain exactly one [1..1] playingEntity (CONF:4499-34191).
          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:4499-34204).
          2. This playingEntity SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-34205).
          3. This playingEntity SHALL contain exactly one [1..1] code (CONF:4499-34192).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34203).
12. MAY contain zero or one [0..1] participation (CONF:4499-34692) 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:4499-34694).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34695).  
       Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34693).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34696).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34697).
13. MAY contain zero or more [0..\*] participation (CONF:4499-34500) 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:4499-34501).
    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:4499-34502).
14. MAY contain zero or more [0..\*] participation (CONF:4499-34966) 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:4499-34970).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36017).
15. MAY contain zero or more [0..\*] participation (CONF:4499-34968) 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:4499-34971).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36018).
16. MAY contain zero or one [0..1] participation (CONF:4499-34972) 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:4499-34974).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36019).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35795) 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:4499-35797).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36020).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34497) 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:4499-34498).
    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:4499-34499).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34682) 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:4499-34686).
    2. SHALL contain exactly one [1..1] observationCriteria (CONF:4499-34683).
       1. This observationCriteria SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4499-34687).
       2. This observationCriteria SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34688).
       3. This observationCriteria SHALL contain exactly one [1..1] code (CONF:4499-34684).
          1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion  (CONF:4499-34689).
          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:4499-34690).
       4. This observationCriteria SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-34685).
          1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34691).

Figure 4: Adverse Event (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.120" extension="2021-02-01"/>

</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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01 (open)]

Table 15: Allergy Intolerance (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34241](#C_4499-34241) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34242](#C_4499-34242) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34759](#C_4499-34759) |  |
| templateId | 1..1 | SHALL |  | [4499-34215](#C_4499-34215) |  |
| item | 1..1 | SHALL |  | [4499-34216](#C_4499-34216) |  |
| @root | 1..1 | SHALL |  | [4499-34228](#C_4499-34228) | 2.16.840.1.113883.10.20.28.4.119 |
| @extension | 1..1 | SHALL |  | [4499-34532](#C_4499-34532) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34243](#C_4499-34243) |  |
| code | 1..1 | SHALL |  | [4499-34217](#C_4499-34217) |  |
| @code | 1..1 | SHALL |  | [4499-34229](#C_4499-34229) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4499-34230](#C_4499-34230) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4499-34244](#C_4499-34244) |  |
| statusCode | 1..1 | SHALL |  | [4499-34218](#C_4499-34218) |  |
| @code | 1..1 | SHALL |  | [4499-34231](#C_4499-34231) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34219](#C_4499-34219) |  |
| low | 0..1 | MAY |  | [4499-34232](#C_4499-34232) |  |
| high | 0..1 | MAY |  | [4499-34233](#C_4499-34233) |  |
| value | 1..1 | SHALL | CD | [4499-34220](#C_4499-34220) |  |
| @code | 1..1 | SHALL |  | [4499-34234](#C_4499-34234) | 106190000 |
| @codeSystem | 1..1 | SHALL |  | [4499-34235](#C_4499-34235) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| participation | 1..1 | SHALL |  | [4499-34221](#C_4499-34221) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34240](#C_4499-34240) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-34222](#C_4499-34222) |  |
| @classCode | 1..1 | SHALL |  | [4499-34239](#C_4499-34239) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingEntity | 1..1 | SHALL |  | [4499-34223](#C_4499-34223) |  |
| @classCode | 1..1 | SHALL |  | [4499-34237](#C_4499-34237) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-34238](#C_4499-34238) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-34224](#C_4499-34224) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34236](#C_4499-34236) |  |
| participation | 0..1 | MAY |  | [4499-34710](#C_4499-34710) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34713](#C_4499-34713) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34711](#C_4499-34711) |  |
| low | 1..1 | SHALL |  | [4499-34714](#C_4499-34714) |  |
| role | 1..1 | SHALL |  | [4499-34712](#C_4499-34712) |  |
| @classCode | 1..1 | SHALL |  | [4499-34715](#C_4499-34715) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34716](#C_4499-34716) |  |
| participation | 0..\* | MAY |  | [4499-34979](#C_4499-34979) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34985](#C_4499-34985) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36021](#C_4499-36021) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-34983](#C_4499-34983) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34987](#C_4499-34987) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36022](#C_4499-36022) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35798](#C_4499-35798) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35800](#C_4499-35800) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36023](#C_4499-36023) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-34981](#C_4499-34981) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34986](#C_4499-34986) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36024](#C_4499-36024) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34214](#C_4499-34214) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34226](#C_4499-34226) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34225](#C_4499-34225) | [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 |  | [4499-34704](#C_4499-34704) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34709](#C_4499-34709) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34705](#C_4499-34705) |  |
| @classCode | 1..1 | SHALL |  | [4499-34707](#C_4499-34707) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34708](#C_4499-34708) | EVN |
| code | 1..1 | SHALL |  | [4499-34706](#C_4499-34706) |  |
| @code | 1..1 | SHALL |  | [4499-34698](#C_4499-34698) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4499-34699](#C_4499-34699) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| value | 1..1 | SHALL | CD | [4499-34700](#C_4499-34700) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34701](#C_4499-34701) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4499-34241).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34242).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34759).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34215).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34216) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.119" (CONF:4499-34228).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34532).
5. SHALL contain exactly one [1..1] id (CONF:4499-34243).
6. SHALL contain exactly one [1..1] code (CONF:4499-34217).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4499-34229).
   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:4499-34230).
7. SHALL contain exactly one [1..1] title (CONF:4499-34244).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34218).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34231).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34219) 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:4499-34232).  
      Note: Onset Date
   2. MAY contain zero or one [0..1] high (CONF:4499-34233).  
      Note: Abatement Date
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-34220).
    1. This value SHALL contain exactly one [1..1] @code="106190000" Allergy (CONF:4499-34234).
    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:4499-34235).
11. SHALL contain exactly one [1..1] participation (CONF:4499-34221) 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:4499-34240).
    2. SHALL contain exactly one [1..1] role (CONF:4499-34222).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34239).
       2. This role SHALL contain exactly one [1..1] playingEntity (CONF:4499-34223).
          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:4499-34237).
          2. This playingEntity SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-34238).
          3. This playingEntity SHALL contain exactly one [1..1] code (CONF:4499-34224).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34236).
12. MAY contain zero or one [0..1] participation (CONF:4499-34710) 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:4499-34713).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34711).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34714).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34712).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34715).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34716).
13. MAY contain zero or more [0..\*] participation (CONF:4499-34979) 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:4499-34985).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36021).
14. MAY contain zero or more [0..\*] participation (CONF:4499-34983) 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:4499-34987).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36022).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35798) 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:4499-35800).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36023).
16. MAY contain zero or one [0..1] participation (CONF:4499-34981) 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:4499-34986).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36024).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34214) 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:4499-34226).
    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:4499-34225).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34704) 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:4499-34709).
    2. SHALL contain exactly one [1..1] observationCriteria (CONF:4499-34705).
       1. This observationCriteria SHALL contain exactly one [1..1] @classCode="OBS" (CONF:4499-34707).
       2. This observationCriteria SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:4499-34708).
       3. This observationCriteria SHALL contain exactly one [1..1] code (CONF:4499-34706).
          1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion  (CONF:4499-34698).
          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:4499-34699).
       4. This observationCriteria SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-34700).
          1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34701).

Figure 5: Allergy Intolerance (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.119" extension="2021-02-01"/>

</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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01 (open)]

Table 17: Assessment, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34673](#C_4499-34673) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34674](#C_4499-34674) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-34675](#C_4499-34675) |  |
| templateId | 1..1 | SHALL |  | [4499-34654](#C_4499-34654) |  |
| item | 1..1 | SHALL |  | [4499-34655](#C_4499-34655) |  |
| @root | 1..1 | SHALL |  | [4499-34664](#C_4499-34664) | 2.16.840.1.113883.10.20.28.4.131 |
| @extension | 1..1 | SHALL |  | [4499-34665](#C_4499-34665) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34676](#C_4499-34676) |  |
| code | 1..1 | SHALL |  | [4499-34656](#C_4499-34656) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34666](#C_4499-34666) |  |
| title | 1..1 | SHALL |  | [4499-34677](#C_4499-34677) |  |
| statusCode | 1..1 | SHALL |  | [4499-34657](#C_4499-34657) |  |
| @code | 1..1 | SHALL |  | [4499-34667](#C_4499-34667) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-34660](#C_4499-34660) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34672](#C_4499-34672) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34661](#C_4499-34661) |  |
| low | 1..1 | SHALL |  | [4499-34669](#C_4499-34669) |  |
| role | 1..1 | SHALL |  | [4499-34662](#C_4499-34662) |  |
| @classCode | 1..1 | SHALL |  | [4499-34670](#C_4499-34670) | ROL |
| id | 0..1 | MAY |  | [4499-34671](#C_4499-34671) |  |
| participation | 0..\* | MAY |  | [4499-34988](#C_4499-34988) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34994](#C_4499-34994) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36025](#C_4499-36025) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-34992](#C_4499-34992) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34996](#C_4499-34996) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36026](#C_4499-36026) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35801](#C_4499-35801) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35803](#C_4499-35803) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36027](#C_4499-36027) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-34990](#C_4499-34990) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34995](#C_4499-34995) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36028](#C_4499-36028) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36029](#C_4499-36029) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36031](#C_4499-36031) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36030](#C_4499-36030) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-34652](#C_4499-34652) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34663](#C_4499-34663) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-34653](#C_4499-34653) | [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:4499-34673).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34674).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-34675).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34654).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34655) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.131" (CONF:4499-34664).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34665).
5. SHALL contain exactly one [1..1] id (CONF:4499-34676).
6. SHALL contain exactly one [1..1] code (CONF:4499-34656).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34666).
7. SHALL contain exactly one [1..1] title (CONF:4499-34677).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34657).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34667).
9. MAY contain zero or one [0..1] participation (CONF:4499-34660) 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:4499-34672).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34661).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34669).  
         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:4499-34662).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34670).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-34671).
10. MAY contain zero or more [0..\*] participation (CONF:4499-34988) 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:4499-34994).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36025).
11. MAY contain zero or more [0..\*] participation (CONF:4499-34992) 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:4499-34996).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36026).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35801) 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:4499-35803).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36027).
13. MAY contain zero or one [0..1] participation (CONF:4499-34990) 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:4499-34995).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36028).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36029) 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:4499-36031).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36030).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34652) 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:4499-34663).
    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:4499-34653).

Figure 6: Assessment, Order (V2) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.131" extension="2021-02-01"/>

</templateId>

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

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

<title value="Assessment, Order"/>

<statusCode code="active"/>

</observationCriteria>

Assessment, Performed (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01 (open)]

Table 19: Assessment, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34142](#C_4499-34142) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34143](#C_4499-34143) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-34144](#C_4499-34144) |  |
| templateId | 1..1 | SHALL |  | [4499-34126](#C_4499-34126) |  |
| item | 1..1 | SHALL |  | [4499-34127](#C_4499-34127) |  |
| @root | 1..1 | SHALL |  | [4499-34134](#C_4499-34134) | 2.16.840.1.113883.10.20.28.4.117 |
| @extension | 1..1 | SHALL |  | [4499-34254](#C_4499-34254) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34145](#C_4499-34145) |  |
| code | 1..1 | SHALL |  | [4499-34128](#C_4499-34128) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34136](#C_4499-34136) |  |
| title | 1..1 | SHALL |  | [4499-34146](#C_4499-34146) |  |
| statusCode | 1..1 | SHALL |  | [4499-34129](#C_4499-34129) |  |
| @code | 1..1 | SHALL |  | [4499-34137](#C_4499-34137) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-36032](#C_4499-36032) |  |
| low | 0..1 | MAY |  | [4499-36033](#C_4499-36033) |  |
| high | 0..1 | MAY |  | [4499-36034](#C_4499-36034) |  |
| value | 0..1 | MAY |  | [4499-34147](#C_4499-34147) |  |
| interpretationCode | 0..1 | MAY |  | [4499-36035](#C_4499-36035) |  |
| item | 1..1 | SHALL |  | [4499-36036](#C_4499-36036) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-36041](#C_4499-36041) |  |
| methodCode | 0..1 | MAY |  | [4499-34246](#C_4499-34246) |  |
| item | 0..1 | SHOULD |  | [4499-34247](#C_4499-34247) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34249](#C_4499-34249) |  |
| participation | 0..1 | MAY |  | [4499-34735](#C_4499-34735) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34738](#C_4499-34738) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34736](#C_4499-34736) |  |
| low | 1..1 | SHALL |  | [4499-34739](#C_4499-34739) |  |
| role | 1..1 | SHALL |  | [4499-34737](#C_4499-34737) |  |
| @classCode | 1..1 | SHALL |  | [4499-34741](#C_4499-34741) | ROL |
| id | 0..1 | MAY |  | [4499-34740](#C_4499-34740) |  |
| participation | 0..\* | MAY |  | [4499-34997](#C_4499-34997) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35003](#C_4499-35003) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36037](#C_4499-36037) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35001](#C_4499-35001) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35005](#C_4499-35005) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36038](#C_4499-36038) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35804](#C_4499-35804) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35806](#C_4499-35806) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36039](#C_4499-36039) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-34999](#C_4499-34999) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35004](#C_4499-35004) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36040](#C_4499-36040) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34245](#C_4499-34245) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34250](#C_4499-34250) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-34248](#C_4499-34248) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..\* | MAY |  | [4499-34608](#C_4499-34608) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34609](#C_4499-34609) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34610](#C_4499-34610) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |
| outboundRelationship | 0..\* | MAY |  | [4499-34732](#C_4499-34732) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34733](#C_4499-34733) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34734](#C_4499-34734) | [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:4499-34142).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34143).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-34144).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34126).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34127) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.117" (CONF:4499-34134).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34254).
5. SHALL contain exactly one [1..1] id (CONF:4499-34145).
6. SHALL contain exactly one [1..1] code (CONF:4499-34128).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34136).
7. SHALL contain exactly one [1..1] title (CONF:4499-34146).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34129).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34137).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-36032) 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:4499-36033).  
      Note: start time of Relevant Period. QDM Attribute: Relevant dateTime.
   2. MAY contain zero or one [0..1] high (CONF:4499-36034).  
      Note: stop time of Relevant Period
10. MAY contain zero or one [0..1] value (CONF:4499-34147).  
    Note: QDM Attribute: Result
11. MAY contain zero or one [0..1] interpretationCode (CONF:4499-36035).  
    Note: QDM Attribute: Interpretation
    1. The interpretationCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-36036).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-36041).
12. MAY contain zero or one [0..1] methodCode (CONF:4499-34246).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHOULD contain zero or one [0..1] item (CONF:4499-34247).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34249).
13. MAY contain zero or one [0..1] participation (CONF:4499-34735) 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:4499-34738).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34736).  
       Note: QDM Attribute: Author dateTime (The time the assessment is completed)
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34739).
    3. SHALL contain exactly one [1..1] role (CONF:4499-34737).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34741).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34740).
14. MAY contain zero or more [0..\*] participation (CONF:4499-34997) 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:4499-35003).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36037).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35001) 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:4499-35005).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36038).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35804) 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:4499-35806).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36039).
17. MAY contain zero or one [0..1] participation (CONF:4499-34999) 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:4499-35004).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36040).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34245) 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:4499-34250).
    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:4499-34248).
19. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34608) 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:4499-34609).
    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:4499-34610).
20. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34732) 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:4499-34733).
    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:4499-34734).

Figure 7: Assessment, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.117" extension="2021-02-01"/>

</templateId>

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

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

<title value="Assessment, Performed"/>

<statusCode code="completed"/>

</observationCriteria>

Assessment, Recommended (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01 (open)]

Table 21: Assessment, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34165](#C_4499-34165) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34166](#C_4499-34166) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-34167](#C_4499-34167) |  |
| templateId | 1..1 | SHALL |  | [4499-34149](#C_4499-34149) |  |
| item | 1..1 | SHALL |  | [4499-34150](#C_4499-34150) |  |
| @root | 1..1 | SHALL |  | [4499-34157](#C_4499-34157) | 2.16.840.1.113883.10.20.28.4.118 |
| @extension | 1..1 | SHALL |  | [4499-34273](#C_4499-34273) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34168](#C_4499-34168) |  |
| code | 1..1 | SHALL |  | [4499-34151](#C_4499-34151) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34159](#C_4499-34159) |  |
| title | 1..1 | SHALL |  | [4499-34169](#C_4499-34169) |  |
| statusCode | 1..1 | SHALL |  | [4499-34152](#C_4499-34152) |  |
| @code | 1..1 | SHALL |  | [4499-34160](#C_4499-34160) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-34270](#C_4499-34270) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34274](#C_4499-34274) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34271](#C_4499-34271) |  |
| low | 1..1 | SHALL |  | [4499-34275](#C_4499-34275) |  |
| role | 1..1 | SHALL |  | [4499-34272](#C_4499-34272) |  |
| @classCode | 1..1 | SHALL |  | [4499-34276](#C_4499-34276) | ROL |
| participation | 0..\* | MAY |  | [4499-35006](#C_4499-35006) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35012](#C_4499-35012) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36042](#C_4499-36042) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35010](#C_4499-35010) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35014](#C_4499-35014) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36043](#C_4499-36043) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35807](#C_4499-35807) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35809](#C_4499-35809) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36044](#C_4499-36044) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35008](#C_4499-35008) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35013](#C_4499-35013) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36045](#C_4499-36045) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36046](#C_4499-36046) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36048](#C_4499-36048) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36047](#C_4499-36047) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-34264](#C_4499-34264) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34269](#C_4499-34269) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-34267](#C_4499-34267) | [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:4499-34165).
2. SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34166).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-34167).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34149).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34150) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.118" (CONF:4499-34157).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34273).
5. SHALL contain exactly one [1..1] id (CONF:4499-34168).
6. SHALL contain exactly one [1..1] code (CONF:4499-34151).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34159).
7. SHALL contain exactly one [1..1] title (CONF:4499-34169).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34152).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34160).
9. MAY contain zero or one [0..1] participation (CONF:4499-34270) 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:4499-34274).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34271).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34275).  
         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:4499-34272).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34276).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35006) 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:4499-35012).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36042).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35010) 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:4499-35014).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36043).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35807) 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:4499-35809).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36044).
13. MAY contain zero or one [0..1] participation (CONF:4499-35008) 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:4499-35013).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36045).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36046) 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:4499-36048).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36047).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34264) 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:4499-34269).
    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:4499-34267).

Figure 8: Assessment, Recommended (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.118" extension="2021-02-01"/>

</templateId>

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

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

<title value="Assessment, Recommended"/>

<statusCode code="active"/>

</observationCriteria>

Care Goal (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01 (open)]

Table 23: Care Goal (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Related To](#E_Related_To_V1) (optional)  [Target Outcome](#E_Target_Outcome_V1) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-27869](#C_4499-27869) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-27870](#C_4499-27870) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34760](#C_4499-34760) |  |
| templateId | 1..1 | SHALL |  | [4499-27872](#C_4499-27872) |  |
| item | 1..1 | SHALL |  | [4499-28447](#C_4499-28447) |  |
| @root | 1..1 | SHALL |  | [4499-28448](#C_4499-28448) | 2.16.840.1.113883.10.20.28.4.7 |
| @extension | 1..1 | SHALL |  | [4499-33051](#C_4499-33051) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32479](#C_4499-32479) |  |
| code | 1..1 | SHALL |  | [4499-27873](#C_4499-27873) |  |
| @code | 1..1 | SHALL |  | [4499-27874](#C_4499-27874) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4499-27875](#C_4499-27875) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| title | 1..1 | SHALL |  | [4499-32480](#C_4499-32480) |  |
| statusCode | 1..1 | SHALL |  | [4499-32481](#C_4499-32481) |  |
| @code | 1..1 | SHALL |  | [4499-32482](#C_4499-32482) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-32488](#C_4499-32488) |  |
| low | 0..1 | MAY |  | [4499-32489](#C_4499-32489) |  |
| high | 0..1 | MAY |  | [4499-32490](#C_4499-32490) |  |
| activityTime | 0..1 | MAY | IVL\_TS | [4499-36049](#C_4499-36049) |  |
| low | 1..1 | SHALL |  | [4499-36050](#C_4499-36050) |  |
| value | 1..1 | SHALL | CD | [4499-27876](#C_4499-27876) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32483](#C_4499-32483) |  |
| participation | 0..\* | MAY |  | [4499-35015](#C_4499-35015) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35021](#C_4499-35021) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36051](#C_4499-36051) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35017](#C_4499-35017) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35022](#C_4499-35022) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36052](#C_4499-36052) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35810](#C_4499-35810) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35812](#C_4499-35812) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36053](#C_4499-36053) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35019](#C_4499-35019) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35023](#C_4499-35023) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36054](#C_4499-36054) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..\* | MAY |  | [4499-33032](#C_4499-33032) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34743](#C_4499-34743) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34744](#C_4499-34744) | [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 |  | [4499-34742](#C_4499-34742) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34745](#C_4499-34745) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34746](#C_4499-34746) | [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:4499-27869).
2. SHALL contain exactly one [1..1] @moodCode="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-27870).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34760).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-27872).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-28447) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.7" (CONF:4499-28448).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33051).
5. SHALL contain exactly one [1..1] id (CONF:4499-32479).
6. SHALL contain exactly one [1..1] code (CONF:4499-27873).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:4499-27874).
   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:4499-27875).
7. SHALL contain exactly one [1..1] title (CONF:4499-32480).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32481).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32482).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-32488) 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:4499-32489).  
      Note: Start dateTime (when the goal is recorded, and therefore should be considered effective)
   2. MAY contain zero or one [0..1] high (CONF:4499-32490).  
      Note: Stop dateTime (when the target outcome is expected to be met)
10. MAY contain zero or one [0..1] activityTime (CONF:4499-36049).
    1. The activityTime, if present, SHALL contain exactly one [1..1] low (CONF:4499-36050).  
       Note: QDM Attribute: statusDate (when the goal took effect)
11. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-27876).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32483).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35015).  
    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:4499-35021).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36051).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35017).  
    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:4499-35022).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36052).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35810).  
    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:4499-35812).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36053).
15. MAY contain zero or one [0..1] participation (CONF:4499-35019).  
    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:4499-35023).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36054).
16. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-33032) 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:4499-34743).
    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:4499-34744).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34742) 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:4499-34745).
    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:4499-34746).

Figure 9: Care Goal (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.7" extension="2021-02-01"/>

</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 10: 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 (V3)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01 (open)]

Table 27: Communication, Performed (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (required)  [Related To](#E_Related_To_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-35042](#C_4499-35042) | ACT |
| @moodCode | 1..1 | SHALL |  | [4499-35043](#C_4499-35043) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-35044](#C_4499-35044) |  |
| templateId | 1..1 | SHALL |  | [4499-35025](#C_4499-35025) |  |
| item | 1..1 | SHALL |  | [4499-35026](#C_4499-35026) |  |
| @root | 1..1 | SHALL |  | [4499-35035](#C_4499-35035) | 2.16.840.1.113883.10.20.28.4.132 |
| @extension | 1..1 | SHALL |  | [4499-35036](#C_4499-35036) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-35045](#C_4499-35045) |  |
| code | 0..1 | MAY |  | [4499-35028](#C_4499-35028) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35038](#C_4499-35038) |  |
| title | 1..1 | SHALL |  | [4499-35046](#C_4499-35046) |  |
| statusCode | 1..1 | SHALL |  | [4499-35027](#C_4499-35027) |  |
| @code | 1..1 | SHALL |  | [4499-35037](#C_4499-35037) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-35031](#C_4499-35031) |  |
| low | 0..1 | MAY |  | [4499-35040](#C_4499-35040) |  |
| high | 0..1 | MAY |  | [4499-35041](#C_4499-35041) |  |
| participation | 0..1 | MAY |  | [4499-35032](#C_4499-35032) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35047](#C_4499-35047) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34717](#C_4499-34717) |  |
| role | 1..1 | SHALL |  | [4499-35033](#C_4499-35033) |  |
| @classCode | 1..1 | SHALL |  | [4499-34718](#C_4499-34718) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34719](#C_4499-34719) |  |
| participation | 0..1 | MAY |  | [4499-34865](#C_4499-34865) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34866](#C_4499-34866) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VIA |
| modeCode | 1..1 | SHALL |  | [4499-34867](#C_4499-34867) |  |
| role | 1..1 | SHALL |  | [4499-34868](#C_4499-34868) |  |
| @classCode | 1..1 | SHALL |  | [4499-34870](#C_4499-34870) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ASSIGNED |
| participation | 0..\* | MAY |  | [4499-34720](#C_4499-34720) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34854](#C_4499-34854) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4499-36055](#C_4499-36055) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35055](#C_4499-35055) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35059](#C_4499-35059) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4499-36056](#C_4499-36056) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..1 | MAY |  | [4499-35057](#C_4499-35057) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35060](#C_4499-35060) | DIST |
| patient | 1..1 | SHALL |  | [4499-36057](#C_4499-36057) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36127](#C_4499-36127) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36129](#C_4499-36129) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4499-36128](#C_4499-36128) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..\* | MAY |  | [4499-36058](#C_4499-36058) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36066](#C_4499-36066) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST |
| role | 1..1 | SHALL |  | [4499-36059](#C_4499-36059) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| participation | 0..\* | MAY |  | [4499-34722](#C_4499-34722) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34857](#C_4499-34857) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| role | 1..1 | SHALL |  | [4499-36060](#C_4499-36060) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35048](#C_4499-35048) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35050](#C_4499-35050) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| role | 1..1 | SHALL |  | [4499-36061](#C_4499-36061) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35813](#C_4499-35813) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35815](#C_4499-35815) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36062](#C_4499-36062) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35052](#C_4499-35052) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35054](#C_4499-35054) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| patient | 1..1 | SHALL |  | [4499-36063](#C_4499-36063) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36064](#C_4499-36064) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36067](#C_4499-36067) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP |
| role | 1..1 | SHALL |  | [4499-36065](#C_4499-36065) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 1..1 | SHALL |  | [4499-34681](#C_4499-34681) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35034](#C_4499-35034) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-35024](#C_4499-35024) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..\* | MAY |  | [4499-35029](#C_4499-35029) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35039](#C_4499-35039) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35030](#C_4499-35030) | [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:4499-35042).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-35043).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-35044).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-35025).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-35026) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.132" (CONF:4499-35035).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-35036).
5. SHALL contain exactly one [1..1] id (CONF:4499-35045).
6. MAY contain zero or one [0..1] code (CONF:4499-35028).  
   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:4499-35038).
7. SHALL contain exactly one [1..1] title (CONF:4499-35046).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-35027).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-35037).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-35031) such that it
   1. MAY contain zero or one [0..1] low (CONF:4499-35040).  
      Note: QDM Attribute: sent dateTime – The time the communication is sent
   2. MAY contain zero or one [0..1] high (CONF:4499-35041).  
      Note: QDM Attribute: received dateTime – The time the communication is received
10. MAY contain zero or one [0..1] participation (CONF:4499-35032) 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:4499-35047).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34717).  
       Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-35033).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34718).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34719).
11. MAY contain zero or one [0..1] participation (CONF:4499-34865) 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:4499-34866).
    2. SHALL contain exactly one [1..1] modeCode (CONF:4499-34867).  
       Note: QDM Attribute: Medium - A channel used for a communication (e.g., fax, email, etc.)
    3. SHALL contain exactly one [1..1] role (CONF:4499-34868).
       1. This role SHALL contain exactly one [1..1] @classCode="ASSIGNED" Assigned (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34870).
12. MAY contain zero or more [0..\*] participation (CONF:4499-34720) 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:4499-34854).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36055).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35055) 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:4499-35059).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36056).
14. MAY contain zero or one [0..1] participation (CONF:4499-35057) such that it  
    Note: QDM Attribute: Sender
    1. SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CONF:4499-35060).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36057).
15. MAY contain zero or more [0..\*] participation (CONF:4499-36127) 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:4499-36129).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36128).
16. MAY contain zero or more [0..\*] participation (CONF:4499-36058) 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:4499-36066).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36059).
17. MAY contain zero or more [0..\*] participation (CONF:4499-34722) 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:4499-34857).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36060).
18. MAY contain zero or more [0..\*] participation (CONF:4499-35048) 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:4499-35050).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36061).
19. MAY contain zero or more [0..\*] participation (CONF:4499-35813) 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:4499-35815).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36062).
20. MAY contain zero or one [0..1] participation (CONF:4499-35052) 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:4499-35054).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36063).
21. MAY contain zero or more [0..\*] participation (CONF:4499-36064) 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:4499-36067).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36065).
22. SHALL contain exactly one [1..1] outboundRelationship (CONF:4499-34681) 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:4499-35034).
    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:4499-35024).
23. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-35029) 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:4499-35039).
    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:4499-35030).

Figure 11: Communication, Performed (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.132" extension="2021-02-01"/>

</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 (V4)](#E_Assessment_Performed_V4) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (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 12: 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 (V4)](#E_Laboratory_Test_Performed_V4_) (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 13: 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 (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (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 14: 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, Order (V3)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01 (open)]

Table 35: Device, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 36: Device, Order (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-29840](#C_4499-29840) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4499-29841](#C_4499-29841) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-31002](#C_4499-31002) |  |
| templateId | 1..1 | SHALL |  | [4499-29842](#C_4499-29842) |  |
| item | 1..1 | SHALL |  | [4499-29843](#C_4499-29843) |  |
| @root | 1..1 | SHALL |  | [4499-29844](#C_4499-29844) | 2.16.840.1.113883.10.20.28.4.15 |
| @extension | 1..1 | SHALL |  | [4499-33642](#C_4499-33642) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-29845](#C_4499-29845) |  |
| title | 1..1 | SHALL |  | [4499-29846](#C_4499-29846) |  |
| statusCode | 1..1 | SHALL |  | [4499-31003](#C_4499-31003) |  |
| @code | 1..1 | SHALL |  | [4499-31004](#C_4499-31004) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 1..1 | SHALL |  | [4499-29847](#C_4499-29847) |  |
| @typeCode | 1..1 | SHALL |  | [4499-29848](#C_4499-29848) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| role | 1..1 | SHALL |  | [4499-29849](#C_4499-29849) |  |
| @classCode | 1..1 | SHALL |  | [4499-29850](#C_4499-29850) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4499-29851](#C_4499-29851) |  |
| @classCode | 1..1 | SHALL |  | [4499-29852](#C_4499-29852) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = DEV |
| @determinerCode | 1..1 | SHALL |  | [4499-29853](#C_4499-29853) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-29854](#C_4499-29854) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-29855](#C_4499-29855) |  |
| participation | 0..1 | MAY |  | [4499-33475](#C_4499-33475) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33477](#C_4499-33477) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33476](#C_4499-33476) |  |
| low | 1..1 | SHALL |  | [4499-33478](#C_4499-33478) |  |
| role | 1..1 | SHALL |  | [4499-33569](#C_4499-33569) |  |
| @classCode | 1..1 | SHALL |  | [4499-33570](#C_4499-33570) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33571](#C_4499-33571) |  |
| participation | 0..\* | MAY |  | [4499-35070](#C_4499-35070) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35072](#C_4499-35072) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36068](#C_4499-36068) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35073](#C_4499-35073) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35077](#C_4499-35077) | PART |
| role | 1..1 | SHALL |  | [4499-36069](#C_4499-36069) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35820](#C_4499-35820) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35822](#C_4499-35822) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36070](#C_4499-36070) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35075](#C_4499-35075) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35078](#C_4499-35078) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36071](#C_4499-36071) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36072](#C_4499-36072) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36074](#C_4499-36074) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36073](#C_4499-36073) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-29888](#C_4499-29888) |  |
| @typeCode | 1..1 | SHALL |  | [4499-29892](#C_4499-29892) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-29889](#C_4499-29889) | [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:4499-29840).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-29841).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31002).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-29842).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-29843) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.15" (CONF:4499-29844).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33642).
5. SHALL contain exactly one [1..1] id (CONF:4499-29845).
6. SHALL contain exactly one [1..1] title (CONF:4499-29846).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-31003).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31004).
8. SHALL contain exactly one [1..1] participation (CONF:4499-29847) 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:4499-29848).
   2. SHALL contain exactly one [1..1] role (CONF:4499-29849).
      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:4499-29850).
      2. This role SHALL contain exactly one [1..1] playingDevice (CONF:4499-29851).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" Device (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-29852).
         2. This playingDevice SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-29853).
         3. This playingDevice SHALL contain exactly one [1..1] code (CONF:4499-29854).  
            Note: QDM Attribute: Code
            1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-29855).
9. MAY contain zero or one [0..1] participation (CONF:4499-33475) 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:4499-33477).
   2. SHALL contain exactly one [1..1] time (CONF:4499-33476).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-33478).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4499-33569).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33570).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-33571).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35070) 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:4499-35072).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36068).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35073) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35077).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36069).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35820) 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:4499-35822).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36070).
13. MAY contain zero or one [0..1] participation (CONF:4499-35075) 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:4499-35078).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36071).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36072) 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:4499-36074).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36073).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-29888) 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:4499-29892).
    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:4499-29889).

Figure 15: Device, Order (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.15" extension="2021-02-01"/>

</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 (V3)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01 (open)]

Table 37: Device, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 38: Device, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31708](#C_4499-31708) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4499-31709](#C_4499-31709) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-31710](#C_4499-31710) |  |
| templateId | 1..1 | SHALL |  | [4499-31711](#C_4499-31711) |  |
| item | 1..1 | SHALL |  | [4499-31712](#C_4499-31712) |  |
| @root | 1..1 | SHALL |  | [4499-31713](#C_4499-31713) | 2.16.840.1.113883.10.20.28.4.16 |
| @extension | 1..1 | SHALL |  | [4499-33699](#C_4499-33699) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31714](#C_4499-31714) |  |
| title | 1..1 | SHALL |  | [4499-31715](#C_4499-31715) |  |
| statusCode | 1..1 | SHALL |  | [4499-31716](#C_4499-31716) |  |
| @code | 1..1 | SHALL |  | [4499-31717](#C_4499-31717) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 1..1 | SHALL |  | [4499-31721](#C_4499-31721) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31722](#C_4499-31722) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| role | 1..1 | SHALL |  | [4499-31723](#C_4499-31723) |  |
| @classCode | 1..1 | SHALL |  | [4499-31724](#C_4499-31724) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [4499-31725](#C_4499-31725) |  |
| @classCode | 1..1 | SHALL |  | [4499-31726](#C_4499-31726) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = DEV |
| @determinerCode | 1..1 | SHALL |  | [4499-31727](#C_4499-31727) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-31728](#C_4499-31728) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31729](#C_4499-31729) |  |
| participation | 0..1 | MAY |  | [4499-34322](#C_4499-34322) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34325](#C_4499-34325) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34323](#C_4499-34323) |  |
| low | 1..1 | SHALL |  | [4499-34326](#C_4499-34326) |  |
| role | 1..1 | SHALL |  | [4499-34324](#C_4499-34324) |  |
| @classCode | 1..1 | SHALL |  | [4499-34327](#C_4499-34327) | ROL |
| id | 0..1 | MAY |  | [4499-34328](#C_4499-34328) |  |
| participation | 0..\* | MAY |  | [4499-35079](#C_4499-35079) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35085](#C_4499-35085) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36075](#C_4499-36075) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35083](#C_4499-35083) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35087](#C_4499-35087) | PART |
| role | 1..1 | SHALL |  | [4499-36076](#C_4499-36076) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35823](#C_4499-35823) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35825](#C_4499-35825) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PART |
| role | 1..1 | SHALL |  | [4499-36077](#C_4499-36077) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35081](#C_4499-35081) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35086](#C_4499-35086) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36078](#C_4499-36078) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36079](#C_4499-36079) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36081](#C_4499-36081) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36080](#C_4499-36080) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-31736](#C_4499-31736) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31737](#C_4499-31737) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31738](#C_4499-31738) | [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:4499-31708).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31709).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31710).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31711).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31712) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.16" (CONF:4499-31713).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33699).
5. SHALL contain exactly one [1..1] id (CONF:4499-31714).
6. SHALL contain exactly one [1..1] title (CONF:4499-31715).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-31716).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31717).
8. SHALL contain exactly one [1..1] participation (CONF:4499-31721) 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:4499-31722).
   2. SHALL contain exactly one [1..1] role (CONF:4499-31723).
      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:4499-31724).
      2. This role SHALL contain exactly one [1..1] playingDevice (CONF:4499-31725).
         1. This playingDevice SHALL contain exactly one [1..1] @classCode="DEV" Device (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-31726).
         2. This playingDevice SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-31727).
         3. This playingDevice SHALL contain exactly one [1..1] code (CONF:4499-31728).  
            Note: QDM Attribute: Code
            1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31729).
9. MAY contain zero or one [0..1] participation (CONF:4499-34322) 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:4499-34325).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34323).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34326).  
         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:4499-34324).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34327).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-34328).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35079) 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:4499-35085).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36075).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35083) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35087).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36076).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35823) 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:4499-35825).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36077).
13. MAY contain zero or one [0..1] participation (CONF:4499-35081) 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:4499-35086).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36078).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36079) 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:4499-36081).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36080).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31736) 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:4499-31737).
    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:4499-31738).

Figure 16: Device, Recommended (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.16" extension="2021-02-01"/>

</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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01 (open)]

Table 39: Diagnosis (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 40: Diagnosis (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33768](#C_4499-33768) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-33769](#C_4499-33769) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34702](#C_4499-34702) |  |
| templateId | 1..1 | SHALL |  | [4499-33770](#C_4499-33770) |  |
| item | 1..1 | SHALL |  | [4499-33771](#C_4499-33771) |  |
| @root | 1..1 | SHALL |  | [4499-33776](#C_4499-33776) | 2.16.840.1.113883.10.20.28.4.110 |
| @extension | 1..1 | SHALL |  | [4499-34321](#C_4499-34321) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-33777](#C_4499-33777) |  |
| code | 1..1 | SHALL |  | [4499-33772](#C_4499-33772) |  |
| @code | 1..1 | SHALL |  | [4499-33778](#C_4499-33778) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 282291009 |
| @codeSystem | 1..1 | SHALL |  | [4499-33779](#C_4499-33779) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-33780](#C_4499-33780) |  |
| statusCode | 1..1 | SHALL |  | [4499-33773](#C_4499-33773) |  |
| @code | 1..1 | SHALL |  | [4499-33781](#C_4499-33781) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-33774](#C_4499-33774) |  |
| low | 0..1 | MAY |  | [4499-33782](#C_4499-33782) |  |
| high | 0..1 | MAY |  | [4499-33783](#C_4499-33783) |  |
| value | 1..1 | SHALL | CD | [4499-33775](#C_4499-33775) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33784](#C_4499-33784) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-33785](#C_4499-33785) |  |
| item | 1..1 | SHALL |  | [4499-33786](#C_4499-33786) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33788](#C_4499-33788) |  |
| participation | 0..\* | MAY |  | [4499-35106](#C_4499-35106) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35112](#C_4499-35112) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36082](#C_4499-36082) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35108](#C_4499-35108) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35113](#C_4499-35113) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36083](#C_4499-36083) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35826](#C_4499-35826) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35828](#C_4499-35828) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36084](#C_4499-36084) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35110](#C_4499-35110) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35114](#C_4499-35114) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36085](#C_4499-36085) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-33787](#C_4499-33787) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33789](#C_4499-33789) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-33790](#C_4499-33790) | [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:4499-33768).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-33769).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34702).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-33770).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-33771) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.110" (CONF:4499-33776).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34321).
5. SHALL contain exactly one [1..1] id (CONF:4499-33777).
6. SHALL contain exactly one [1..1] code (CONF:4499-33772).
   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:4499-33778).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (SNOMED CT) (CONF:4499-33779).
7. SHALL contain exactly one [1..1] title (CONF:4499-33780).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-33773).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-33781).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-33774) 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:4499-33782).  
      Note: Onset dateTime
   2. MAY contain zero or one [0..1] high (CONF:4499-33783).  
      Note: Abatement dateTime
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-33775).
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33784).
11. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-33785).  
    Note: QDM attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-33786).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33788).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35106).  
    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:4499-35112).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36082).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35108).  
    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:4499-35113).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36083).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35826).  
    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:4499-35828).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36084).
15. MAY contain zero or one [0..1] participation (CONF:4499-35110).  
    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:4499-35114).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36085).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33787) 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:4499-33789).
    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:4499-33790).

Figure 17: Diagnosis (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.110" extension="2021-02-01"/>

</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 (V5)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01 (open)]

Table 41: Diagnostic Study, Order (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 42: Diagnostic Study, Order (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34723](#C_4499-34723) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-30106](#C_4499-30106) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-30485](#C_4499-30485) |  |
| templateId | 1..1 | SHALL |  | [4499-30108](#C_4499-30108) |  |
| item | 1..1 | SHALL |  | [4499-30109](#C_4499-30109) |  |
| @root | 1..1 | SHALL |  | [4499-30117](#C_4499-30117) | 2.16.840.1.113883.10.20.28.4.22 |
| @extension | 1..1 | SHALL |  | [4499-33643](#C_4499-33643) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30110](#C_4499-30110) |  |
| code | 1..1 | SHALL |  | [4499-30111](#C_4499-30111) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30126](#C_4499-30126) |  |
| title | 1..1 | SHALL |  | [4499-35938](#C_4499-35938) |  |
| statusCode | 1..1 | SHALL |  | [4499-30232](#C_4499-30232) |  |
| @code | 1..1 | SHALL |  | [4499-30233](#C_4499-30233) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-33480](#C_4499-33480) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33482](#C_4499-33482) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33481](#C_4499-33481) |  |
| low | 1..1 | SHALL |  | [4499-33483](#C_4499-33483) |  |
| role | 1..1 | SHALL |  | [4499-33572](#C_4499-33572) |  |
| @classCode | 1..1 | SHALL |  | [4499-33573](#C_4499-33573) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 1..1 | SHALL |  | [4499-33574](#C_4499-33574) |  |
| participation | 0..\* | MAY |  | [4499-35088](#C_4499-35088) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35094](#C_4499-35094) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36089](#C_4499-36089) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35092](#C_4499-35092) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35096](#C_4499-35096) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36090](#C_4499-36090) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35829](#C_4499-35829) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35831](#C_4499-35831) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36091](#C_4499-36091) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35090](#C_4499-35090) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35095](#C_4499-35095) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36092](#C_4499-36092) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36093](#C_4499-36093) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36095](#C_4499-36095) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36094](#C_4499-36094) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30124](#C_4499-30124) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30912](#C_4499-30912) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30125](#C_4499-30125) | [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:4499-34723).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4499-30106).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30485).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30108).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30109) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.22" (CONF:4499-30117).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33643).
5. SHALL contain exactly one [1..1] id (CONF:4499-30110).
6. SHALL contain exactly one [1..1] code (CONF:4499-30111).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30126).
7. SHALL contain exactly one [1..1] title (CONF:4499-35938).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30232).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30233).
9. MAY contain zero or one [0..1] participation (CONF:4499-33480) 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:4499-33482).
   2. SHALL contain exactly one [1..1] time (CONF:4499-33481).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-33483).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4499-33572).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33573).
      2. This role SHALL contain exactly one [1..1] id (CONF:4499-33574).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35088) 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:4499-35094).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36089).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35092) 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:4499-35096).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36090).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35829) 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:4499-35831).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36091).
13. MAY contain zero or one [0..1] participation (CONF:4499-35090) 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:4499-35095).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36092).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36093) 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:4499-36095).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36094).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30124) 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:4499-30912).
    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:4499-30125).

Figure 18: Diagnostic Study, Order (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.22" extension="2021-02-01"/>

</templateId>

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

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

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

<statusCode code="active"/>

</observationCriteria>

Diagnostic Study, Performed (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01 (open)]

Table 43: Diagnostic Study, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 44: Diagnostic Study, Performed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30775](#C_4499-30775) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-30776](#C_4499-30776) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-30777](#C_4499-30777) |  |
| templateId | 1..1 | SHALL |  | [4499-30778](#C_4499-30778) |  |
| item | 1..1 | SHALL |  | [4499-30779](#C_4499-30779) |  |
| @root | 1..1 | SHALL |  | [4499-30780](#C_4499-30780) | 2.16.840.1.113883.10.20.28.4.23 |
| @extension | 1..1 | SHALL |  | [4499-33605](#C_4499-33605) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30781](#C_4499-30781) |  |
| code | 1..1 | SHALL |  | [4499-30782](#C_4499-30782) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30783](#C_4499-30783) |  |
| title | 1..1 | SHALL |  | [4499-35939](#C_4499-35939) |  |
| statusCode | 1..1 | SHALL |  | [4499-30785](#C_4499-30785) |  |
| @code | 1..1 | SHALL |  | [4499-30786](#C_4499-30786) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-30787](#C_4499-30787) |  |
| low | 0..1 | MAY |  | [4499-30788](#C_4499-30788) |  |
| high | 0..1 | MAY |  | [4499-30789](#C_4499-30789) |  |
| value | 0..0 | SHALL NOT |  | [4499-34764](#C_4499-34764) |  |
| interpretationCode | 0..1 | MAY |  | [4499-36096](#C_4499-36096) |  |
| item | 1..1 | SHALL |  | [4499-36097](#C_4499-36097) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-36104](#C_4499-36104) |  |
| methodCode | 0..1 | MAY |  | [4499-30790](#C_4499-30790) |  |
| item | 0..1 | SHOULD |  | [4499-30791](#C_4499-30791) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30917](#C_4499-30917) |  |
| participation | 0..1 | MAY |  | [4499-30792](#C_4499-30792) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30993](#C_4499-30993) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4499-30992](#C_4499-30992) | [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 |  | [4499-34510](#C_4499-34510) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34513](#C_4499-34513) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34511](#C_4499-34511) |  |
| low | 1..1 | SHALL |  | [4499-34514](#C_4499-34514) |  |
| role | 1..1 | SHALL |  | [4499-34512](#C_4499-34512) |  |
| @classCode | 1..1 | SHALL |  | [4499-34515](#C_4499-34515) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34516](#C_4499-34516) |  |
| participation | 0..\* | MAY |  | [4499-35103](#C_4499-35103) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35105](#C_4499-35105) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36098](#C_4499-36098) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35097](#C_4499-35097) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35101](#C_4499-35101) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36099](#C_4499-36099) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35832](#C_4499-35832) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35834](#C_4499-35834) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36100](#C_4499-36100) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35099](#C_4499-35099) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35102](#C_4499-35102) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36101](#C_4499-36101) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-30799](#C_4499-30799) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30921](#C_4499-30921) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30800](#C_4499-30800) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34763](#C_4499-34763) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34765](#C_4499-34765) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4499-34766](#C_4499-34766) | [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 |  | [4499-33365](#C_4499-33365) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34614](#C_4499-34614) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-33366](#C_4499-33366) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..\* | MAY |  | [4499-34611](#C_4499-34611) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34612](#C_4499-34612) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34613](#C_4499-34613) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |
| outboundRelationship | 0..\* | MAY |  | [4499-36102](#C_4499-36102) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36105](#C_4499-36105) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36103](#C_4499-36103) | [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:4499-30775).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4499-30776).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30777).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30778).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30779) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.23" (CONF:4499-30780).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33605).
5. SHALL contain exactly one [1..1] id (CONF:4499-30781).
6. SHALL contain exactly one [1..1] code (CONF:4499-30782).
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30783).
7. SHALL contain exactly one [1..1] title (CONF:4499-35939).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30785).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30786).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-30787) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-30788).  
      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:4499-30789).  
      Note: stopTime of Relevant Period (When the diagnostic study is completed)
10. SHALL NOT contain [0..0] value (CONF:4499-34764).  
    Note: Use the Result (V2) template to represent Result
11. MAY contain zero or one [0..1] interpretationCode (CONF:4499-36096).  
    Note: QDM Attribute: Interpretation
    1. The interpretationCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-36097).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-36104).
12. MAY contain zero or one [0..1] methodCode (CONF:4499-30790).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHOULD contain zero or one [0..1] item (CONF:4499-30791).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30917).
13. MAY contain zero or one [0..1] participation (CONF:4499-30792) 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:4499-30993).
    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:4499-30992).
14. MAY contain zero or one [0..1] participation (CONF:4499-34510) 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:4499-34513).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34511).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34514).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4499-34512).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34515).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34516).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35103) 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:4499-35105).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36098).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35097) 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:4499-35101).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36099).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35832) 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:4499-35834).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36100).
18. MAY contain zero or one [0..1] participation (CONF:4499-35099) 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:4499-35102).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36101).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30799) 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:4499-30921).
    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:4499-30800).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34763) 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:4499-34765).
    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:4499-34766).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33365) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34614).
    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:4499-33366).
22. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34611) such that it  
    Note: QDM Attribute: Component
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34612).
    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:4499-34613).
23. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36102) 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:4499-36105).
    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:4499-36103).

Figure 19: Diagnostic Study, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.23" extension="2021-02-01"/>

</templateId>

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

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

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

<statusCode code="completed"/>

</observationCriteria>

Diagnostic Study, Recommended (V5)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01 (open)]

Table 45: Diagnostic Study, Recommended (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 46: Diagnostic Study, Recommended (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30572](#C_4499-30572) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-30573](#C_4499-30573) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-30574](#C_4499-30574) |  |
| templateId | 1..1 | SHALL |  | [4499-30575](#C_4499-30575) |  |
| item | 1..1 | SHALL |  | [4499-30576](#C_4499-30576) |  |
| @root | 1..1 | SHALL |  | [4499-30577](#C_4499-30577) | 2.16.840.1.113883.10.20.28.4.24 |
| @extension | 1..1 | SHALL |  | [4499-33751](#C_4499-33751) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30578](#C_4499-30578) |  |
| code | 1..1 | SHALL |  | [4499-30579](#C_4499-30579) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30580](#C_4499-30580) |  |
| title | 1..1 | SHALL |  | [4499-30581](#C_4499-30581) |  |
| statusCode | 1..1 | SHALL |  | [4499-30582](#C_4499-30582) |  |
| @code | 1..1 | SHALL |  | [4499-30583](#C_4499-30583) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-34329](#C_4499-34329) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34331](#C_4499-34331) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34330](#C_4499-34330) |  |
| low | 1..1 | SHALL |  | [4499-34332](#C_4499-34332) |  |
| role | 1..1 | SHALL |  | [4499-34333](#C_4499-34333) |  |
| @classCode | 1..1 | SHALL |  | [4499-34334](#C_4499-34334) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34335](#C_4499-34335) |  |
| participation | 0..\* | MAY |  | [4499-35115](#C_4499-35115) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35121](#C_4499-35121) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36106](#C_4499-36106) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35119](#C_4499-35119) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35123](#C_4499-35123) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36107](#C_4499-36107) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35835](#C_4499-35835) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35837](#C_4499-35837) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36108](#C_4499-36108) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35117](#C_4499-35117) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35122](#C_4499-35122) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36109](#C_4499-36109) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36110](#C_4499-36110) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36112](#C_4499-36112) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36111](#C_4499-36111) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-30572).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4499-30573).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30574).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30575).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30576) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.24" (CONF:4499-30577).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33751).
5. SHALL contain exactly one [1..1] id (CONF:4499-30578).
6. SHALL contain exactly one [1..1] code (CONF:4499-30579).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30580).
7. SHALL contain exactly one [1..1] title (CONF:4499-30581).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30582).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30583).
9. MAY contain zero or one [0..1] participation (CONF:4499-34329) 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:4499-34331).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34330).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34332).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
   3. SHALL contain exactly one [1..1] role (CONF:4499-34333).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34334).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-34335).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35115) 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:4499-35121).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36106).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35119) 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:4499-35123).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36107).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35835) 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:4499-35837).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36108).
13. MAY contain zero or one [0..1] participation (CONF:4499-35117) 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:4499-35122).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36109).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36110) 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:4499-36112).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36111).

Figure 20: Diagnostic Study, Recommended (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.24" extension="2021-02-01"/>

</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 47: Dosage Contexts

| Contained By: | Contains: |
| --- | --- |
| [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (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 48: 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 21: 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 Class

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01 (open)]

Table 49: Encounter Class Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional) |  |

This template is to represent encounter Class attribute. Encounter class are concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.

Table 50: Encounter Class Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-36348](#C_4499-36348) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-36349](#C_4499-36349) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-36350](#C_4499-36350) |  |
| templateId | 1..1 | SHALL |  | [4499-36339](#C_4499-36339) |  |
| item | 1..1 | SHALL |  | [4499-36340](#C_4499-36340) |  |
| @root | 1..1 | SHALL |  | [4499-36343](#C_4499-36343) | 2.16.840.1.113883.10.20.28.4.143 |
| @extension | 1..1 | SHALL |  | [4499-36344](#C_4499-36344) | 2021-02-01 |
| code | 1..1 | SHALL |  | [4499-36341](#C_4499-36341) |  |
| @code | 1..1 | SHALL |  | [4499-36345](#C_4499-36345) | 75525-6 |
| @codeSystem | 1..1 | SHALL |  | [4499-36346](#C_4499-36346) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | CD | [4499-36351](#C_4499-36351) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-36348).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-36349).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-36350).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-36339) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4499-36340).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.143" (CONF:4499-36343).
      2. This item SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-36344).
5. SHALL contain exactly one [1..1] code (CONF:4499-36341).
   1. This code SHALL contain exactly one [1..1] @code="75525-6" Type of encounter (CONF:4499-36345).
   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:4499-36346).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-36351).

Figure 22: Encounter Class Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.143" extension="2021-02-01"/>

</templateId>

<code code="75525-6" displayName="Type of encounter"

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

<value xsi:type="CD" code="AMB" displayName="ambulatory" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>

</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 (V4)](#E_Encounter_Performed_V4_) (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 23: 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 (V3)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01 (open)]

Table 53: Encounter, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30860](#C_4499-30860) | ENC |
| @moodCode | 1..1 | SHALL |  | [4499-30861](#C_4499-30861) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-30862](#C_4499-30862) |  |
| templateId | 1..1 | SHALL |  | [4499-30863](#C_4499-30863) |  |
| item | 1..1 | SHALL |  | [4499-30864](#C_4499-30864) |  |
| @root | 1..1 | SHALL |  | [4499-30865](#C_4499-30865) | 2.16.840.1.113883.10.20.28.4.27 |
| @extension | 1..1 | SHALL |  | [4499-33645](#C_4499-33645) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30866](#C_4499-30866) |  |
| code | 1..1 | SHALL |  | [4499-30867](#C_4499-30867) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30868](#C_4499-30868) |  |
| title | 1..1 | SHALL |  | [4499-35940](#C_4499-35940) |  |
| statusCode | 1..1 | SHALL |  | [4499-30870](#C_4499-30870) |  |
| @code | 1..1 | SHALL |  | [4499-30871](#C_4499-30871) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| priorityCode | 0..1 | MAY |  | [4499-35133](#C_4499-35133) |  |
| item | 1..1 | SHALL |  | [4499-35134](#C_4499-35134) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35135](#C_4499-35135) |  |
| participation | 0..1 | MAY |  | [4499-30875](#C_4499-30875) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30876](#C_4499-30876) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4499-30877](#C_4499-30877) | [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 |  | [4499-33485](#C_4499-33485) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33487](#C_4499-33487) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33486](#C_4499-33486) |  |
| low | 1..1 | SHALL |  | [4499-33488](#C_4499-33488) |  |
| role | 1..1 | SHALL |  | [4499-33575](#C_4499-33575) |  |
| @classCode | 1..1 | SHALL |  | [4499-33576](#C_4499-33576) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33577](#C_4499-33577) |  |
| participation | 0..\* | MAY |  | [4499-35124](#C_4499-35124) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35128](#C_4499-35128) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36121](#C_4499-36121) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35126](#C_4499-35126) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35129](#C_4499-35129) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36122](#C_4499-36122) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35838](#C_4499-35838) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35840](#C_4499-35840) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36123](#C_4499-36123) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35130](#C_4499-35130) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35132](#C_4499-35132) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35131](#C_4499-35131) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36124](#C_4499-36124) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36126](#C_4499-36126) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36125](#C_4499-36125) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30878](#C_4499-30878) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30879](#C_4499-30879) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30880](#C_4499-30880) | [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:4499-30860).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30861).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30862).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30863).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30864) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.27" (CONF:4499-30865).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33645).
5. SHALL contain exactly one [1..1] id (CONF:4499-30866).
6. SHALL contain exactly one [1..1] code (CONF:4499-30867).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30868).
7. SHALL contain exactly one [1..1] title (CONF:4499-35940).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30870).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30871).
9. MAY contain zero or one [0..1] priorityCode (CONF:4499-35133).  
   Note: QDM Attribute: Priority
   1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-35134).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35135).
10. MAY contain zero or one [0..1] participation (CONF:4499-30875) 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:4499-30876).
    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:4499-30877).
11. MAY contain zero or one [0..1] participation (CONF:4499-33485) 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:4499-33487).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33486).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33488).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4499-33575).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33576).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-33577).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35124) 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:4499-35128).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36121).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35126) 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:4499-35129).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36122).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35838) 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:4499-35840).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36123).
15. MAY contain zero or one [0..1] participation (CONF:4499-35130) 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:4499-35132).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35131).
16. MAY contain zero or more [0..\*] participation (CONF:4499-36124) 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:4499-36126).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36125).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30878) 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:4499-30879).
    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:4499-30880).

Figure 24: Encounter, Order (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.27" extension="2012-02-01"/>

</templateId>

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

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

<title value="Encounter, Order"/>

<statusCode code="active"/>

</encounterCriteria>

Encounter, Performed (V4)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01 (open)]

Table 55: Encounter, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Admission Source](#E_Admission_Source_1) (optional)  [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Encounter Diagnosis](#E_Encounter_Diagnosis_) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (optional)  [Encounter Class](#E_Encounter_Class) (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 (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31005](#C_4499-31005) | ENC |
| @moodCode | 1..1 | SHALL |  | [4499-31006](#C_4499-31006) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-36119](#C_4499-36119) |  |
| templateId | 1..1 | SHALL |  | [4499-31008](#C_4499-31008) |  |
| item | 1..1 | SHALL |  | [4499-31009](#C_4499-31009) |  |
| @root | 1..1 | SHALL |  | [4499-31010](#C_4499-31010) | 2.16.840.1.113883.10.20.28.4.5 |
| @extension | 1..1 | SHALL |  | [4499-33397](#C_4499-33397) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31011](#C_4499-31011) |  |
| code | 1..1 | SHALL |  | [4499-31012](#C_4499-31012) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31013](#C_4499-31013) |  |
| title | 1..1 | SHALL |  | [4499-35941](#C_4499-35941) |  |
| statusCode | 1..1 | SHALL |  | [4499-31015](#C_4499-31015) |  |
| @code | 1..1 | SHALL |  | [4499-31016](#C_4499-31016) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-31017](#C_4499-31017) |  |
| low | 0..1 | MAY |  | [4499-31018](#C_4499-31018) |  |
| high | 0..1 | MAY |  | [4499-31019](#C_4499-31019) |  |
| priorityCode | 0..1 | MAY |  | [4499-35141](#C_4499-35141) |  |
| item | 1..1 | SHALL |  | [4499-35142](#C_4499-35142) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35149](#C_4499-35149) |  |
| lengthOfStayQuantity | 0..1 | MAY |  | [4499-31033](#C_4499-31033) |  |
| dischargeDispositionCode | 0..1 | MAY |  | [4499-31034](#C_4499-31034) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33105](#C_4499-33105) |  |
| participation | 0..\* | MAY |  | [4499-31021](#C_4499-31021) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31022](#C_4499-31022) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4499-31023](#C_4499-31023) | [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 |  | [4499-34371](#C_4499-34371) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34372](#C_4499-34372) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4499-34373](#C_4499-34373) | [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 |  | [4499-35136](#C_4499-35136) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34659](#C_4499-34659) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-35137](#C_4499-35137) |  |
| low | 1..1 | SHALL |  | [4499-35138](#C_4499-35138) |  |
| role | 1..1 | SHALL |  | [4499-34658](#C_4499-34658) |  |
| @classCode | 1..1 | SHALL |  | [4499-35139](#C_4499-35139) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-35140](#C_4499-35140) |  |
| participation | 0..\* | MAY |  | [4499-35143](#C_4499-35143) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35150](#C_4499-35150) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36113](#C_4499-36113) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35147](#C_4499-35147) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35152](#C_4499-35152) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36114](#C_4499-36114) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35841](#C_4499-35841) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35843](#C_4499-35843) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36115](#C_4499-36115) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35145](#C_4499-35145) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35151](#C_4499-35151) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36116](#C_4499-36116) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36117](#C_4499-36117) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36120](#C_4499-36120) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36118](#C_4499-36118) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-31024](#C_4499-31024) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31025](#C_4499-31025) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31026](#C_4499-31026) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..\* | MAY |  | [4499-34041](#C_4499-34041) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34045](#C_4499-34045) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35760](#C_4499-35760) | [Encounter Diagnosis (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01](#E_Encounter_Diagnosis_) |
| outboundRelationship | 0..1 | MAY |  | [4499-36352](#C_4499-36352) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36354](#C_4499-36354) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36353](#C_4499-36353) | [Encounter Class (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01](#E_Encounter_Class) |
| outboundRelationship | 0..1 | MAY |  | [4499-36355](#C_4499-36355) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36357](#C_4499-36357) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36356](#C_4499-36356) | [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="ENC" Encounter (CONF:4499-31005).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31006).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-36119).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31008).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31009) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.5" (CONF:4499-31010).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33397).
5. SHALL contain exactly one [1..1] id (CONF:4499-31011).
6. SHALL contain exactly one [1..1] code (CONF:4499-31012).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31013).
7. SHALL contain exactly one [1..1] title (CONF:4499-35941).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31015).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31016).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-31017) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31018).  
      Note: startTime – The time the encounter began (admission time)
   2. MAY contain zero or one [0..1] high (CONF:4499-31019).  
      Note: stopTime – The time the encounter ended (discharge time)
10. MAY contain zero or one [0..1] priorityCode (CONF:4499-35141).  
    Note: QDM Attribute: Priority
    1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-35142).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35149).
11. MAY contain zero or one [0..1] lengthOfStayQuantity (CONF:4499-31033).  
    Note: QDM Attribute: Length of Stay
12. MAY contain zero or one [0..1] dischargeDispositionCode (CONF:4499-31034).  
    Note: QDM Attribute: Discharge Disposition
    1. The dischargeDispositionCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33105).
13. MAY contain zero or more [0..\*] participation (CONF:4499-31021) 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:4499-31022).
    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:4499-31023).
14. MAY contain zero or one [0..1] participation (CONF:4499-34371) 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:4499-34372).
    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:4499-34373).
15. MAY contain zero or one [0..1] participation (CONF:4499-35136) 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:4499-34659).
    2. SHALL contain exactly one [1..1] time (CONF:4499-35137).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-35138).  
          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:4499-34658).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-35139).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-35140).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35143) 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:4499-35150).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36113).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35147) 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:4499-35152).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36114).
18. MAY contain zero or more [0..\*] participation (CONF:4499-35841) 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:4499-35843).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36115).
19. MAY contain zero or one [0..1] participation (CONF:4499-35145) 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:4499-35151).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36116).
20. MAY contain zero or more [0..\*] participation (CONF:4499-36117) 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:4499-36120).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36118).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31024) 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:4499-31025).
    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:4499-31026).
22. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34041) such that it  
    Note: QDM Attribute: Diagnoses
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4499-34045).
    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:4499-35760).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-36352) such that it  
    Note: QDM Attribute: Class
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36354).
    2. SHALL contain exactly one [1..1] [Encounter Class](#E_Encounter_Class) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01) (CONF:4499-36353).
24. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-36355) 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:4499-36357).
    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:4499-36356).

Figure 25: Encounter, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.5" extension="2021-02-01"/>

</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 (V3)

[EncounterCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01 (open)]

Table 57: Encounter, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Facility Location](#E_Facility_Location) (optional)  [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| EncounterCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30854](#C_4499-30854) | ENC |
| @moodCode | 1..1 | SHALL |  | [4499-30518](#C_4499-30518) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-30855](#C_4499-30855) |  |
| templateId | 1..1 | SHALL |  | [4499-30519](#C_4499-30519) |  |
| item | 1..1 | SHALL |  | [4499-30520](#C_4499-30520) |  |
| @root | 1..1 | SHALL |  | [4499-30521](#C_4499-30521) | 2.16.840.1.113883.10.20.28.4.28 |
| @extension | 1..1 | SHALL |  | [4499-33694](#C_4499-33694) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30522](#C_4499-30522) |  |
| code | 1..1 | SHALL |  | [4499-30523](#C_4499-30523) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30856](#C_4499-30856) |  |
| title | 1..1 | SHALL |  | [4499-35942](#C_4499-35942) |  |
| statusCode | 1..1 | SHALL |  | [4499-30857](#C_4499-30857) |  |
| @code | 0..1 | SHALL |  | [4499-30858](#C_4499-30858) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-30532](#C_4499-30532) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30859](#C_4499-30859) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = LOC |
| role | 1..1 | SHALL |  | [4499-30533](#C_4499-30533) | [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 |  | [4499-34377](#C_4499-34377) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34380](#C_4499-34380) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34378](#C_4499-34378) |  |
| low | 1..1 | SHALL |  | [4499-34381](#C_4499-34381) |  |
| role | 1..1 | SHALL |  | [4499-34379](#C_4499-34379) |  |
| @classCode | 1..1 | SHALL |  | [4499-35160](#C_4499-35160) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34382](#C_4499-34382) |  |
| participation | 0..\* | MAY |  | [4499-35161](#C_4499-35161) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35167](#C_4499-35167) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36130](#C_4499-36130) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35165](#C_4499-35165) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35169](#C_4499-35169) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36131](#C_4499-36131) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35844](#C_4499-35844) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35846](#C_4499-35846) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36132](#C_4499-36132) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35163](#C_4499-35163) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35168](#C_4499-35168) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35164](#C_4499-35164) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36133](#C_4499-36133) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36135](#C_4499-36135) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36134](#C_4499-36134) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30534](#C_4499-30534) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30535](#C_4499-30535) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30536](#C_4499-30536) | [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:4499-30854).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30518).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30855).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30519).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30520) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.28" (CONF:4499-30521).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33694).
5. SHALL contain exactly one [1..1] id (CONF:4499-30522).
6. SHALL contain exactly one [1..1] code (CONF:4499-30523).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30856).
7. SHALL contain exactly one [1..1] title (CONF:4499-35942).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30857).
   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:4499-30858).
9. MAY contain zero or one [0..1] participation (CONF:4499-30532) 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:4499-30859).
   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:4499-30533).
10. MAY contain zero or one [0..1] participation (CONF:4499-34377) 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:4499-34380).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34378).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34381).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4499-34379).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-35160).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34382).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35161) 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:4499-35167).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36130).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35165) 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:4499-35169).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36131).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35844) 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:4499-35846).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36132).
14. MAY contain zero or one [0..1] participation (CONF:4499-35163) 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:4499-35168).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35164).
15. MAY contain zero or more [0..\*] participation (CONF:4499-36133) 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:4499-36135).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36134).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30534) 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:4499-30535).
    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:4499-30536).

Figure 26: Encounter, Recommended (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.28" extension="2021-02-01"/>

</templateId>

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

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

<title value="Encounter, Recommended"/>

<statusCode code="active"/>

</encounterCriteria>

Entity - Care Partner (V2)

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 (open)]

Table 59: Entity - Care Partner (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Family History (V3)](#E_Family_History_V3) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Active (V5)](#E_Medication_Active_V5_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Administered (V5)](#E_Substance_Administered_V5) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Symptom (V4)](#E_Symptom_V4) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional)  [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (optional) |  |

This template represents Entity that is care partner - a person that assits with a patient’s care (e.g., a family member and non-family, non-professional caregiver), but who is not the direct target of care.

Table 60: Entity - Care Partner (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-35784](#C_4499-35784) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PRS |
| templateId | 1..1 | SHALL |  | [4499-35773](#C_4499-35773) |  |
| item | 1..1 | SHALL |  | [4499-35774](#C_4499-35774) |  |
| @root | 1..1 | SHALL |  | [4499-35782](#C_4499-35782) | 2.16.840.1.113883.10.20.28.4.134 |
| @extension | 1..1 | SHALL |  | [4499-35783](#C_4499-35783) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-35778](#C_4499-35778) |  |
| item | 1..1 | SHALL |  | [4499-35779](#C_4499-35779) |  |
| @root | 1..1 | SHALL |  | [4499-35787](#C_4499-35787) |  |
| playingPerson | 0..1 | MAY |  | [4499-35978](#C_4499-35978) |  |
| @classCode | 1..1 | SHALL |  | [4499-35981](#C_4499-35981) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PSN |
| @determinerCode | 1..1 | SHALL |  | [4499-35982](#C_4499-35982) | INSTANCE |
| id | 0..\* | MAY |  | [4499-35985](#C_4499-35985) |  |
| item | 1..1 | SHALL |  | [4499-35986](#C_4499-35986) |  |
| @root | 1..1 | SHALL |  | [4499-35987](#C_4499-35987) |  |
| @extension | 1..1 | SHALL |  | [4499-35988](#C_4499-35988) |  |
| asRolePlayed | 0..1 | MAY |  | [4499-35979](#C_4499-35979) |  |
| @classCode | 1..1 | SHALL |  | [4499-35983](#C_4499-35983) | ROL |
| code | 1..1 | SHALL |  | [4499-35980](#C_4499-35980) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35984](#C_4499-35984) |  |

1. SHALL contain exactly one [1..1] @classCode="PRS" personal relationship (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-35784).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-35773).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-35774) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.134" (CONF:4499-35782).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-35783).
3. MAY contain zero or one [0..1] id (CONF:4499-35778).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35779).
      1. This item SHALL contain exactly one [1..1] @root (CONF:4499-35787).
4. MAY contain zero or one [0..1] playingPerson (CONF:4499-35978).
   1. The playingPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-35981).
   2. The playingPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-35982).
   3. The playingPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-35985).  
      Note: identifier
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35986).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4499-35987).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4499-35988).
   4. The playingPerson, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4499-35979).  
      Note: Relationship
      1. The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-35983).
      2. The asRolePlayed, if present, SHALL contain exactly one [1..1] code (CONF:4499-35980).
         1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35984).

Figure 27: Entity - Care Partner (V2) Example

<Role classCode="PRS">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.134" extension="2021-02-01" />

</templateId>

<playingPerson classCode="PSN" determinerCode="INSTANCE">

<asRolePlayed classCode="ROL">

...

</asRolePlayed>

</playingPerson>

</Role>

Entity - Location

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 (open)]

Table 61: Entity - Location Contexts

| Contained By: | Contains: |
| --- | --- |
| [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional) |  |

This template represents Entity that is location – information about a physical place where services and resources are provided and resources and participants may be stored, found, contained, or accommodated.

Table 62: Entity - Location Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-35969](#C_4499-35969) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = EXLOC |
| templateId | 1..1 | SHALL |  | [4499-35960](#C_4499-35960) |  |
| item | 1..1 | SHALL |  | [4499-35961](#C_4499-35961) |  |
| @root | 1..1 | SHALL |  | [4499-35964](#C_4499-35964) | 2.16.840.1.113883.10.20.28.4.142 |
| @extension | 1..1 | SHALL |  | [4499-35965](#C_4499-35965) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-35973](#C_4499-35973) |  |
| item | 1..1 | SHALL |  | [4499-35989](#C_4499-35989) |  |
| @root | 1..1 | SHALL |  | [4499-35990](#C_4499-35990) |  |
| code | 0..1 | SHOULD |  | [4499-35962](#C_4499-35962) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35966](#C_4499-35966) |  |
| playingDevice | 0..1 | MAY |  | [4499-35970](#C_4499-35970) |  |
| @classCode | 1..1 | SHALL |  | [4499-35974](#C_4499-35974) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| @determinerCode | 1..1 | SHALL |  | [4499-35975](#C_4499-35975) | INSTANCE |
| id | 0..1 | MAY |  | [4499-35971](#C_4499-35971) |  |
| item | 1..1 | SHALL |  | [4499-35972](#C_4499-35972) |  |
| @root | 1..1 | SHALL |  | [4499-35976](#C_4499-35976) |  |
| @extension | 1..1 | SHALL |  | [4499-35977](#C_4499-35977) |  |

1. SHALL contain exactly one [1..1] @classCode="EXLOC" Event Location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-35969).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-35960).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-35961) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.142" (CONF:4499-35964).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-35965).
3. MAY contain zero or one [0..1] id (CONF:4499-35973).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35989).
      1. This item SHALL contain exactly one [1..1] @root (CONF:4499-35990).
4. SHOULD contain zero or one [0..1] code (CONF:4499-35962).  
   Note: Attribute: locationType
   1. The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35966).
5. MAY contain zero or one [0..1] playingDevice (CONF:4499-35970).
   1. The playingDevice, if present, SHALL contain exactly one [1..1] @classCode="PLC" place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-35974).
   2. The playingDevice, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-35975).
   3. The playingDevice, if present, MAY contain zero or one [0..1] id (CONF:4499-35971).  
      Note: identifier
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35972).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4499-35976).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4499-35977).

Figure 28: Entity - Location Example

<Role classCode="EXLOC">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.142" extension="2021-02-01" />

</templateId>

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

<playingDevice classCode="PLC" determinerCode="INSTANCE">

...

</playingDevice>

</Role>

Entity - Organization (V2)

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 (open)]

Table 63: Entity - Organization (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Family History (V3)](#E_Family_History_V3) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Active (V5)](#E_Medication_Active_V5_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Administered (V5)](#E_Substance_Administered_V5) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Symptom (V4)](#E_Symptom_V4) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional)  [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (optional) |  |

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

Table 64: Entity - Organization (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34935](#C_4499-34935) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PROV |
| templateId | 1..1 | SHALL |  | [4499-34929](#C_4499-34929) |  |
| item | 1..1 | SHALL |  | [4499-34930](#C_4499-34930) |  |
| @root | 1..1 | SHALL |  | [4499-34932](#C_4499-34932) | 2.16.840.1.113883.10.20.28.4.135 |
| @extension | 1..1 | SHALL |  | [4499-34933](#C_4499-34933) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-35998](#C_4499-35998) |  |
| item | 1..1 | SHALL |  | [4499-35999](#C_4499-35999) |  |
| @root | 1..1 | SHALL |  | [4499-36000](#C_4499-36000) |  |
| scopingOrganization | 1..1 | SHALL |  | [4499-34936](#C_4499-34936) |  |
| @classCode | 1..1 | SHALL |  | [4499-36001](#C_4499-36001) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = ORG |
| @determinerCode | 1..1 | SHALL |  | [4499-36002](#C_4499-36002) | INSTANCE |
| id | 0..1 | MAY |  | [4499-34937](#C_4499-34937) |  |
| item | 1..1 | SHALL |  | [4499-34938](#C_4499-34938) |  |
| @root | 1..1 | SHALL |  | [4499-34954](#C_4499-34954) |  |
| @extension | 1..1 | SHALL |  | [4499-34955](#C_4499-34955) |  |
| code | 0..1 | MAY |  | [4499-34939](#C_4499-34939) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35793](#C_4499-35793) |  |

1. SHALL contain exactly one [1..1] @classCode="PROV" healthcare provider (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34935).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-34929).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34930) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.135" (CONF:4499-34932).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34933).
3. MAY contain zero or one [0..1] id (CONF:4499-35998).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35999).
      1. This item SHALL contain exactly one [1..1] @root (CONF:4499-36000).
4. SHALL contain exactly one [1..1] scopingOrganization (CONF:4499-34936).
   1. This scopingOrganization SHALL contain exactly one [1..1] @classCode="ORG" organization (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36001).
   2. This scopingOrganization SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36002).
   3. This scopingOrganization MAY contain zero or one [0..1] id (CONF:4499-34937).  
      Note: identifier
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-34938).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4499-34954).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4499-34955).
   4. This scopingOrganization MAY contain zero or one [0..1] code (CONF:4499-34939).  
      Note: Attribute: organizationType - kind of organization (e.g., hospital)
      1. The code, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35793).

Figure 29: Entity - Organization (V2) Example

<Role classCode="PROV">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.135" extension="2021-02-01" />

</templateId>

<scopingOrganization classCode="ORG" determinerCode="INSTANCE">

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

</scopingOrganization>

</Role>

Entity - Patient (V2)

[patient: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 (open)]

Table 65: Entity - Patient (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Family History (V3)](#E_Family_History_V3) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Active (V5)](#E_Medication_Active_V5_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Administered (V5)](#E_Substance_Administered_V5) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Symptom (V4)](#E_Symptom_V4) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional)  [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (optional) |  |

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

Table 66: Entity - Patient (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34950](#C_4499-34950) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PAT |
| templateId | 1..1 | SHALL |  | [4499-34943](#C_4499-34943) |  |
| item | 1..1 | SHALL |  | [4499-34944](#C_4499-34944) |  |
| @root | 1..1 | SHALL |  | [4499-34947](#C_4499-34947) | 2.16.840.1.113883.10.20.28.4.94 |
| @extension | 1..1 | SHALL |  | [4499-34948](#C_4499-34948) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-34949](#C_4499-34949) |  |
| item | 1..1 | SHALL |  | [4499-34951](#C_4499-34951) |  |
| @root | 1..1 | SHALL |  | [4499-34952](#C_4499-34952) |  |
| patientPerson | 0..1 | MAY |  | [4499-35991](#C_4499-35991) |  |
| @classCode | 1..1 | SHALL |  | [4499-35994](#C_4499-35994) | PSN |
| @determinerCode | 1..1 | SHALL |  | [4499-35995](#C_4499-35995) | INSTANCE |
| id | 0..\* | MAY |  | [4499-35992](#C_4499-35992) |  |
| item | 1..1 | SHALL |  | [4499-35993](#C_4499-35993) |  |
| @root | 1..1 | SHALL |  | [4499-35996](#C_4499-35996) |  |
| @extension | 1..1 | SHALL |  | [4499-35997](#C_4499-35997) |  |

1. SHALL contain exactly one [1..1] @classCode="PAT" patient (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34950).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-34943).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34944) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.94" (CONF:4499-34947).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34948).
3. MAY contain zero or one [0..1] id (CONF:4499-34949).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-34951).
      1. This item SHALL contain exactly one [1..1] @root (CONF:4499-34952).
4. MAY contain zero or one [0..1] patientPerson (CONF:4499-35991).
   1. The patientPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CONF:4499-35994).
   2. The patientPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-35995).
   3. The patientPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-35992).  
      Note: identifier
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35993).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4499-35996).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4499-35997).

Figure 30: Entity - Patient (V2) Example

<patient classCode="PAT">

<templateId root="2.16.840.1.113883.10.20.28.4.136" extension="2021-02-01" />

<patientPerson classCode="PSN" determinerCode="INSTANCE">

...

</patientPerson>

</patient>

Entity - Practitioner (V2)

[Role: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 (open)]

Table 67: Entity - Practitioner (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Family History (V3)](#E_Family_History_V3) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Active (V5)](#E_Medication_Active_V5_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Administered (V5)](#E_Substance_Administered_V5) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Symptom (V4)](#E_Symptom_V4) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional)  [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) (optional) |  |

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

Table 68: Entity - Practitioner (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| Role (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34926](#C_4499-34926) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PROV |
| templateId | 1..1 | SHALL |  | [4499-34917](#C_4499-34917) |  |
| item | 1..1 | SHALL |  | [4499-34918](#C_4499-34918) |  |
| @root | 1..1 | SHALL |  | [4499-34921](#C_4499-34921) | 2.16.840.1.113883.10.20.28.4.137 |
| @extension | 1..1 | SHALL |  | [4499-34922](#C_4499-34922) | 2021-02-01 |
| id | 0..1 | MAY |  | [4499-34975](#C_4499-34975) |  |
| item | 1..1 | SHALL |  | [4499-34976](#C_4499-34976) |  |
| @root | 1..1 | SHALL |  | [4499-34977](#C_4499-34977) |  |
| playingPerson | 0..1 | MAY |  | [4499-36003](#C_4499-36003) |  |
| @classCode | 1..1 | SHALL |  | [4499-36007](#C_4499-36007) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PSN |
| @determinerCode | 1..1 | SHALL |  | [4499-36008](#C_4499-36008) | INSTANCE |
| id | 0..\* | MAY |  | [4499-36004](#C_4499-36004) |  |
| item | 1..1 | SHALL |  | [4499-36005](#C_4499-36005) |  |
| @root | 1..1 | SHALL |  | [4499-36009](#C_4499-36009) |  |
| @extension | 1..1 | SHALL |  | [4499-36010](#C_4499-36010) |  |
| asRolePlayed | 0..1 | MAY |  | [4499-36006](#C_4499-36006) |  |
| @classCode | 1..1 | SHALL |  | [4499-36014](#C_4499-36014) | ROL |
| code | 0..1 | MAY |  | [4499-36011](#C_4499-36011) |  |
| scopingEntity | 0..1 | MAY |  | [4499-34940](#C_4499-34940) |  |
| @classCode | 1..1 | SHALL |  | [4499-36012](#C_4499-36012) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = ENT |
| @determinerCode | 1..1 | SHALL |  | [4499-36013](#C_4499-36013) | INSTANCE |
| asRolePlayed | 0..1 | MAY |  | [4499-35601](#C_4499-35601) |  |
| @classCode | 1..1 | SHALL |  | [4499-36015](#C_4499-36015) | ROL |
| code | 1..1 | SHALL |  | [4499-35602](#C_4499-35602) |  |
| roleScoped | 0..1 | MAY |  | [4499-34941](#C_4499-34941) |  |
| @classCode | 1..1 | SHALL |  | [4499-36016](#C_4499-36016) | ROL |
| code | 1..1 | SHALL |  | [4499-34942](#C_4499-34942) |  |

1. SHALL contain exactly one [1..1] @classCode="PROV" healthcare provider (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34926).
2. SHALL contain exactly one [1..1] templateId (CONF:4499-34917).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34918) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.137" (CONF:4499-34921).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34922).
3. MAY contain zero or one [0..1] id (CONF:4499-34975).  
   Note: id
   1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-34976).  
      Note: id
      1. This item SHALL contain exactly one [1..1] @root (CONF:4499-34977).
4. MAY contain zero or one [0..1] playingPerson (CONF:4499-36003).
   1. The playingPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36007).
   2. The playingPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36008).
   3. The playingPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-36004).  
      Note: identifier
      1. The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-36005).
         1. This item SHALL contain exactly one [1..1] @root (CONF:4499-36009).
         2. This item SHALL contain exactly one [1..1] @extension (CONF:4499-36010).
   4. The playingPerson, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4499-36006).
      1. The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36014).
      2. The asRolePlayed, if present, MAY contain zero or one [0..1] code (CONF:4499-36011).  
         Note: Attribute: role - role this practitioner may perform (e.g., doctor, nurse)
5. MAY contain zero or one [0..1] scopingEntity (CONF:4499-34940).
   1. The scopingEntity, if present, SHALL contain exactly one [1..1] @classCode="ENT" entity (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36012).
   2. The scopingEntity, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36013).
   3. The scopingEntity, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4499-35601).
      1. The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36015).
      2. The asRolePlayed, if present, SHALL contain exactly one [1..1] code (CONF:4499-35602).  
         Note: Attribute: specialty - specific specialty of the practitioner (e.g., anesthesia, cardiology, gastroenterology, etc.)
   4. The scopingEntity, if present, MAY contain zero or one [0..1] roleScoped (CONF:4499-34941).
      1. The roleScoped, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36016).
      2. The roleScoped, if present, SHALL contain exactly one [1..1] code (CONF:4499-34942).  
         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 (V2) Example

<Role classCode="PROV">

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.137" extension="2021-02-01" />

</templateId>

<playingPerson classCode="PSN" determinerCode="INSTANCE">

...

<asRolePlayed classCode="ROL">

<code valueSet="{ValueSetOID}"/>

</asRolePlayed>

</playingPerson>

<scopingEntity classCode="ENT" determinerCode="INSTANCE">

<asRolePlayed classCode="ROL">

<code valueSet="{ValueSetOID}"/>

</asRolePlayed>

<roleScoped classCode="ROL">

<code valueSet="{ValueSetOID}"/>

</roleScoped>

</scopingEntity>

</Role>

Facility Location

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

Table 69: Facility Location Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (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 70: 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 (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01 (open)]

Table 71: Family History (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 72: Family History (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33797](#C_4499-33797) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-33798](#C_4499-33798) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34703](#C_4499-34703) |  |
| templateId | 1..1 | SHALL |  | [4499-33791](#C_4499-33791) |  |
| item | 1..1 | SHALL |  | [4499-33792](#C_4499-33792) |  |
| @root | 1..1 | SHALL |  | [4499-33799](#C_4499-33799) | 2.16.840.1.113883.10.20.28.4.111 |
| @extension | 1..1 | SHALL |  | [4499-34383](#C_4499-34383) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-33800](#C_4499-33800) |  |
| code | 1..1 | SHALL |  | [4499-33793](#C_4499-33793) |  |
| @code | 1..1 | SHALL |  | [4499-33801](#C_4499-33801) | 10157-6 |
| @codeSystem | 1..1 | SHALL |  | [4499-33802](#C_4499-33802) | 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4499-33803](#C_4499-33803) |  |
| statusCode | 1..1 | SHALL |  | [4499-33794](#C_4499-33794) |  |
| @code | 1..1 | SHALL |  | [4499-33804](#C_4499-33804) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4499-33795](#C_4499-33795) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33805](#C_4499-33805) |  |
| participation | 0..1 | MAY |  | [4499-33796](#C_4499-33796) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33806](#C_4499-33806) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33807](#C_4499-33807) |  |
| low | 1..1 | SHALL |  | [4499-33815](#C_4499-33815) |  |
| role | 1..1 | SHALL |  | [4499-33808](#C_4499-33808) |  |
| @classCode | 1..1 | SHALL |  | [4499-33817](#C_4499-33817) | ROL |
| id | 0..1 | MAY |  | [4499-33818](#C_4499-33818) |  |
| participation | 0..1 | MAY |  | [4499-33809](#C_4499-33809) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33819](#C_4499-33819) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SUBJ |
| role | 1..1 | SHALL |  | [4499-33810](#C_4499-33810) |  |
| @classCode | 1..1 | SHALL |  | [4499-33820](#C_4499-33820) | PRS |
| code | 1..1 | SHALL |  | [4499-33811](#C_4499-33811) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33821](#C_4499-33821) |  |
| participation | 0..\* | MAY |  | [4499-35170](#C_4499-35170) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35176](#C_4499-35176) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36136](#C_4499-36136) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35174](#C_4499-35174) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35178](#C_4499-35178) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36137](#C_4499-36137) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35847](#C_4499-35847) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35849](#C_4499-35849) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36138](#C_4499-36138) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35172](#C_4499-35172) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35177](#C_4499-35177) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35173](#C_4499-35173) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-33797).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-33798).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34703).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-33791).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-33792) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.111" (CONF:4499-33799).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34383).
5. SHALL contain exactly one [1..1] id (CONF:4499-33800).
6. SHALL contain exactly one [1..1] code (CONF:4499-33793).
   1. This code SHALL contain exactly one [1..1] @code="10157-6" Family History (CONF:4499-33801).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (LOINC) (CONF:4499-33802).
7. SHALL contain exactly one [1..1] title (CONF:4499-33803).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-33794).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-33804).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-33795).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33805).
10. MAY contain zero or one [0..1] participation (CONF:4499-33796) 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:4499-33806).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33807).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33815).  
          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:4499-33808).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-33817).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-33818).
11. MAY contain zero or one [0..1] participation (CONF:4499-33809) 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:4499-33819).
    2. SHALL contain exactly one [1..1] role (CONF:4499-33810).
       1. This role SHALL contain exactly one [1..1] @classCode="PRS" Person (CONF:4499-33820).
       2. This role SHALL contain exactly one [1..1] code (CONF:4499-33811).
          1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33821).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35170) 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:4499-35176).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36136).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35174) 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:4499-35178).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36137).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35847) 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:4499-35849).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36138).
15. MAY contain zero or one [0..1] participation (CONF:4499-35172) 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:4499-35177).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35173).

Figure 33: Family History (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.111" extension="2021-02-01"/>

</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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01 (open)]

Table 73: Immunization, Administered (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 74: Immunization, Administered (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33833](#C_4499-33833) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-33834](#C_4499-33834) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-33835](#C_4499-33835) |  |
| templateId | 1..1 | SHALL |  | [4499-33830](#C_4499-33830) |  |
| item | 1..1 | SHALL |  | [4499-33831](#C_4499-33831) |  |
| @root | 1..1 | SHALL |  | [4499-33836](#C_4499-33836) | 2.16.840.1.113883.10.20.28.4.112 |
| @extension | 1..1 | SHALL |  | [4499-34384](#C_4499-34384) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-33837](#C_4499-33837) |  |
| code | 1..1 | SHALL |  | [4499-33832](#C_4499-33832) |  |
| @code | 1..1 | SHALL |  | [4499-33838](#C_4499-33838) | 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4499-33839](#C_4499-33839) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-33840](#C_4499-33840) |  |
| statusCode | 1..1 | SHALL |  | [4499-33841](#C_4499-33841) |  |
| @code | 1..1 | SHALL |  | [4499-33847](#C_4499-33847) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-33842](#C_4499-33842) |  |
| low | 1..1 | SHALL |  | [4499-33848](#C_4499-33848) |  |
| routeCode | 0..1 | MAY |  | [4499-33843](#C_4499-33843) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33850](#C_4499-33850) |  |
| doseQuantity | 0..1 | MAY |  | [4499-33851](#C_4499-33851) |  |
| participation | 1..1 | SHALL |  | [4499-33844](#C_4499-33844) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33852](#C_4499-33852) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-33845](#C_4499-33845) |  |
| @classCode | 1..1 | SHALL |  | [4499-33853](#C_4499-33853) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4499-33846](#C_4499-33846) |  |
| @classCode | 1..1 | SHALL |  | [4499-33854](#C_4499-33854) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-33855](#C_4499-33855) | urn:oid:2.16.840.1.113883.5.30 (EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-33856](#C_4499-33856) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33858](#C_4499-33858) |  |
| participation | 0..1 | MAY |  | [4499-35560](#C_4499-35560) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35563](#C_4499-35563) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-35561](#C_4499-35561) |  |
| low | 1..1 | SHALL |  | [4499-35564](#C_4499-35564) |  |
| role | 1..1 | SHALL |  | [4499-35562](#C_4499-35562) |  |
| @classCode | 1..1 | SHALL |  | [4499-35565](#C_4499-35565) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| participation | 0..\* | MAY |  | [4499-35179](#C_4499-35179) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35184](#C_4499-35184) | PART |
| role | 1..1 | SHALL |  | [4499-36139](#C_4499-36139) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35181](#C_4499-35181) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35185](#C_4499-35185) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36140](#C_4499-36140) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35850](#C_4499-35850) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35852](#C_4499-35852) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36141](#C_4499-36141) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35186](#C_4499-35186) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35188](#C_4499-35188) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36142](#C_4499-36142) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-33857](#C_4499-33857) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33859](#C_4499-33859) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-33860](#C_4499-33860) | [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:4499-33833).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-33834).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-33835).  
   Note: QDM Attribute: Negation rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-33830).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-33831) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.112" (CONF:4499-33836).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34384).
5. SHALL contain exactly one [1..1] id (CONF:4499-33837).
6. SHALL contain exactly one [1..1] code (CONF:4499-33832).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CONF:4499-33838).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (SNOMED CT) (CONF:4499-33839).
7. SHALL contain exactly one [1..1] title (CONF:4499-33840).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-33841).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-33847).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-33842) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4499-33848).  
      Note: QDM Attribute: Relevant dateTime
10. MAY contain zero or one [0..1] routeCode (CONF:4499-33843).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33850).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4499-33851).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4499-33844) 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:4499-33852).
    2. SHALL contain exactly one [1..1] role (CONF:4499-33845).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33853).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4499-33846).
          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:4499-33854).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-33855).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4499-33856).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33858).
13. MAY contain zero or one [0..1] participation (CONF:4499-35560) 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:4499-35563).
    2. SHALL contain exactly one [1..1] time (CONF:4499-35561).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-35564).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-35562).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-35565).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35179) such that it  
    Note: QDM Attribute: Practitioner
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35184).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36139).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35181) 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:4499-35185).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36140).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35850) 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:4499-35852).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36141).
17. MAY contain zero or one [0..1] participation (CONF:4499-35186) 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:4499-35188).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36142).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33857) 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:4499-33859).
    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:4499-33860).

Figure 34: Immunization, Administered (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.112" extension="2021-02-01"/>

</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 (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01 (open)]

Table 75: Immunization, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 76: Immunization, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34025](#C_4499-34025) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-34026](#C_4499-34026) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-34027](#C_4499-34027) |  |
| templateId | 1..1 | SHALL |  | [4499-34003](#C_4499-34003) |  |
| item | 1..1 | SHALL |  | [4499-34004](#C_4499-34004) |  |
| @root | 1..1 | SHALL |  | [4499-34016](#C_4499-34016) | 2.16.840.1.113883.10.20.28.4.113 |
| @extension | 1..1 | SHALL |  | [4499-34385](#C_4499-34385) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34028](#C_4499-34028) |  |
| title | 1..1 | SHALL |  | [4499-35943](#C_4499-35943) |  |
| statusCode | 1..1 | SHALL |  | [4499-34005](#C_4499-34005) |  |
| @code | 1..1 | SHALL |  | [4499-34017](#C_4499-34017) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34006](#C_4499-34006) |  |
| low | 1..1 | SHALL |  | [4499-34018](#C_4499-34018) |  |
| routeCode | 0..1 | MAY |  | [4499-34007](#C_4499-34007) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34019](#C_4499-34019) |  |
| doseQuantity | 0..1 | MAY |  | [4499-34030](#C_4499-34030) |  |
| participation | 1..1 | SHALL |  | [4499-34008](#C_4499-34008) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34024](#C_4499-34024) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-34009](#C_4499-34009) |  |
| @classCode | 1..1 | SHALL |  | [4499-34020](#C_4499-34020) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4499-34010](#C_4499-34010) |  |
| @classCode | 1..1 | SHALL |  | [4499-34022](#C_4499-34022) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-34023](#C_4499-34023) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-34011](#C_4499-34011) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34021](#C_4499-34021) |  |
| participation | 0..1 | MAY |  | [4499-34012](#C_4499-34012) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34035](#C_4499-34035) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34013](#C_4499-34013) |  |
| low | 1..1 | SHALL |  | [4499-34031](#C_4499-34031) |  |
| role | 1..1 | SHALL |  | [4499-34014](#C_4499-34014) |  |
| @classCode | 1..1 | SHALL |  | [4499-34033](#C_4499-34033) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34034](#C_4499-34034) |  |
| participation | 0..\* | MAY |  | [4499-35189](#C_4499-35189) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35193](#C_4499-35193) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36143](#C_4499-36143) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35191](#C_4499-35191) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35194](#C_4499-35194) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36144](#C_4499-36144) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35853](#C_4499-35853) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35855](#C_4499-35855) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36145](#C_4499-36145) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35195](#C_4499-35195) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35197](#C_4499-35197) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35196](#C_4499-35196) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36146](#C_4499-36146) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36148](#C_4499-36148) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36147](#C_4499-36147) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-34002](#C_4499-34002) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34036](#C_4499-34036) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-34015](#C_4499-34015) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34494](#C_4499-34494) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34495](#C_4499-34495) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34802](#C_4499-34802) | [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:4499-34025).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34026).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-34027).  
   Note: QDM Attribute: Negation rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34003).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34004) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.113" (CONF:4499-34016).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34385).
5. SHALL contain exactly one [1..1] id (CONF:4499-34028).
6. SHALL contain exactly one [1..1] title (CONF:4499-35943).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-34005).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34017).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34006) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4499-34018).  
      Note: QDM Attribute: Active dateTime
9. MAY contain zero or one [0..1] routeCode (CONF:4499-34007).
   1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34019).  
      Note: QDM Attribute: Route
10. MAY contain zero or one [0..1] doseQuantity (CONF:4499-34030).  
    Note: QDM Attribute: Dosage
11. SHALL contain exactly one [1..1] participation (CONF:4499-34008) 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:4499-34024).
    2. SHALL contain exactly one [1..1] role (CONF:4499-34009).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34020).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4499-34010).
          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:4499-34022).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-34023).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4499-34011).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34021).
12. MAY contain zero or one [0..1] participation (CONF:4499-34012) 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:4499-34035).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34013).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34031).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4499-34014).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34033).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34034).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35189) 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:4499-35193).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36143).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35191) 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:4499-35194).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36144).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35853) 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:4499-35855).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36145).
16. MAY contain zero or one [0..1] participation (CONF:4499-35195) 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:4499-35197).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35196).
17. MAY contain zero or more [0..\*] participation (CONF:4499-36146) 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:4499-36148).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36147).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34002) 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:4499-34036).
    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:4499-34015).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34494) 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:4499-34495).
    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:4499-34802).

Figure 35: Immunization, Order (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.113" extension="2021-02-01"/>

</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 77: Incision Datetime Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional) |  |

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

Table 78: 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 (V3)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01 (open)]

Table 79: Intervention, Order (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 80: Intervention, Order (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30631](#C_4499-30631) | ACT |
| @moodCode | 1..1 | SHALL |  | [4499-30632](#C_4499-30632) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-30633](#C_4499-30633) |  |
| templateId | 1..1 | SHALL |  | [4499-30643](#C_4499-30643) |  |
| item | 1..1 | SHALL |  | [4499-30644](#C_4499-30644) |  |
| @root | 1..1 | SHALL |  | [4499-30645](#C_4499-30645) | 2.16.840.1.113883.10.20.28.4.35 |
| @extension | 1..1 | SHALL |  | [4499-33383](#C_4499-33383) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30650](#C_4499-30650) |  |
| code | 1..1 | SHALL |  | [4499-30652](#C_4499-30652) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30653](#C_4499-30653) |  |
| title | 1..1 | SHALL |  | [4499-35944](#C_4499-35944) |  |
| statusCode | 1..1 | SHALL |  | [4499-30654](#C_4499-30654) |  |
| @code | 1..1 | SHALL |  | [4499-30655](#C_4499-30655) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-33490](#C_4499-33490) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33492](#C_4499-33492) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33491](#C_4499-33491) |  |
| low | 1..1 | SHALL |  | [4499-33493](#C_4499-33493) |  |
| role | 1..1 | SHALL |  | [4499-33586](#C_4499-33586) |  |
| @classCode | 1..1 | SHALL |  | [4499-33587](#C_4499-33587) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33588](#C_4499-33588) |  |
| participation | 0..\* | MAY |  | [4499-35210](#C_4499-35210) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35214](#C_4499-35214) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36149](#C_4499-36149) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35212](#C_4499-35212) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35215](#C_4499-35215) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36150](#C_4499-36150) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35856](#C_4499-35856) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35858](#C_4499-35858) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36151](#C_4499-36151) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35216](#C_4499-35216) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35218](#C_4499-35218) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36152](#C_4499-36152) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36153](#C_4499-36153) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36155](#C_4499-36155) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36154](#C_4499-36154) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30647](#C_4499-30647) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30648](#C_4499-30648) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30649](#C_4499-30649) | [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:4499-30631).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30632).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30633).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30643).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30644) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.35" (CONF:4499-30645).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33383).
5. SHALL contain exactly one [1..1] id (CONF:4499-30650).
6. SHALL contain exactly one [1..1] code (CONF:4499-30652).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30653).
7. SHALL contain exactly one [1..1] title (CONF:4499-35944).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30654).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30655).
9. MAY contain zero or one [0..1] participation (CONF:4499-33490) 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:4499-33492).
   2. SHALL contain exactly one [1..1] time (CONF:4499-33491).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-33493).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4499-33586).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33587).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-33588).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35210) 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:4499-35214).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36149).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35212) 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:4499-35215).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36150).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35856) 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:4499-35858).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36151).
13. MAY contain zero or one [0..1] participation (CONF:4499-35216) 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:4499-35218).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36152).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36153) 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:4499-36155).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36154).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30647) 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:4499-30648).
    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:4499-30649).

Figure 37: Intervention, Order (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.35" extension="2021-02-01"/>

</templateId>

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

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

<title value="Intervention, Order"/>

<statusCode code="active"/>

</actCriteria>

Intervention, Performed (V4)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01 (open)]

Table 81: Intervention, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 82: Intervention, Performed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31150](#C_4499-31150) | ACT |
| @moodCode | 1..1 | SHALL |  | [4499-31151](#C_4499-31151) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-31152](#C_4499-31152) |  |
| templateId | 1..1 | SHALL |  | [4499-31153](#C_4499-31153) |  |
| item | 1..1 | SHALL |  | [4499-31154](#C_4499-31154) |  |
| @root | 1..1 | SHALL |  | [4499-31155](#C_4499-31155) | 2.16.840.1.113883.10.20.28.4.36 |
| @extension | 1..1 | SHALL |  | [4499-33384](#C_4499-33384) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31156](#C_4499-31156) |  |
| code | 1..1 | SHALL |  | [4499-31157](#C_4499-31157) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31158](#C_4499-31158) |  |
| title | 1..1 | SHALL |  | [4499-35945](#C_4499-35945) |  |
| statusCode | 1..1 | SHALL |  | [4499-31160](#C_4499-31160) |  |
| @code | 1..1 | SHALL |  | [4499-31161](#C_4499-31161) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-31162](#C_4499-31162) |  |
| low | 0..1 | MAY |  | [4499-31163](#C_4499-31163) |  |
| high | 0..1 | MAY |  | [4499-31164](#C_4499-31164) |  |
| participation | 0..1 | MAY |  | [4499-34523](#C_4499-34523) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34526](#C_4499-34526) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34524](#C_4499-34524) |  |
| low | 1..1 | SHALL |  | [4499-34527](#C_4499-34527) |  |
| role | 1..1 | SHALL |  | [4499-34525](#C_4499-34525) |  |
| @classCode | 1..1 | SHALL |  | [4499-34528](#C_4499-34528) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34529](#C_4499-34529) |  |
| participation | 0..\* | MAY |  | [4499-35219](#C_4499-35219) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35223](#C_4499-35223) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36156](#C_4499-36156) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35221](#C_4499-35221) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35224](#C_4499-35224) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36157](#C_4499-36157) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35859](#C_4499-35859) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35861](#C_4499-35861) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36158](#C_4499-36158) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35225](#C_4499-35225) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35227](#C_4499-35227) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36159](#C_4499-36159) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-31171](#C_4499-31171) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31172](#C_4499-31172) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31173](#C_4499-31173) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-33431](#C_4499-33431) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33433](#C_4499-33433) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4499-33434](#C_4499-33434) | [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 |  | [4499-33432](#C_4499-33432) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33435](#C_4499-33435) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-33436](#C_4499-33436) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..\* | MAY |  | [4499-36160](#C_4499-36160) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36162](#C_4499-36162) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36161](#C_4499-36161) | [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:4499-31150).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31151).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31152).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31153).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31154) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.36" (CONF:4499-31155).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33384).
5. SHALL contain exactly one [1..1] id (CONF:4499-31156).
6. SHALL contain exactly one [1..1] code (CONF:4499-31157).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31158).
7. SHALL contain exactly one [1..1] title (CONF:4499-35945).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31160).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31161).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-31162) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31163).  
      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:4499-31164).  
      Note: stopTime of Relevant Period (The time the intervention ends)
10. MAY contain zero or one [0..1] participation (CONF:4499-34523) 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:4499-34526).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34524).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34527).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34525).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34528).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34529).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35219) 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:4499-35223).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36156).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35221) 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:4499-35224).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36157).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35859) 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:4499-35861).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36158).
14. MAY contain zero or one [0..1] participation (CONF:4499-35225) 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:4499-35227).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36159).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31171) 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:4499-31172).
    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:4499-31173).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33431) 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:4499-33433).
    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:4499-33434).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33432) 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:4499-33435).
    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:4499-33436).
18. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36160) 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:4499-36162).
    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:4499-36161).

Figure 38: Intervention, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.36" extension="2021-02-01"/>

</templateId>

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

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

<title value="Intervention, Performed"/>

<statusCode code="completed"/>

</actCriteria>

Intervention, Recommended (V3)

[actCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01 (open)]

Table 83: Intervention, Recommended (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 84: Intervention, Recommended (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| actCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30801](#C_4499-30801) | ACT |
| @moodCode | 1..1 | SHALL |  | [4499-30802](#C_4499-30802) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-30806](#C_4499-30806) |  |
| templateId | 1..1 | SHALL |  | [4499-30803](#C_4499-30803) |  |
| item | 1..1 | SHALL |  | [4499-30804](#C_4499-30804) |  |
| @root | 1..1 | SHALL |  | [4499-30805](#C_4499-30805) | 2.16.840.1.113883.10.20.28.4.37 |
| @extension | 1..1 | SHALL |  | [4499-33385](#C_4499-33385) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30807](#C_4499-30807) |  |
| code | 1..1 | SHALL |  | [4499-30808](#C_4499-30808) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30809](#C_4499-30809) |  |
| title | 1..1 | SHALL |  | [4499-35946](#C_4499-35946) |  |
| statusCode | 1..1 | SHALL |  | [4499-30811](#C_4499-30811) |  |
| @code | 1..1 | SHALL |  | [4499-30812](#C_4499-30812) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-34392](#C_4499-34392) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34395](#C_4499-34395) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34393](#C_4499-34393) |  |
| low | 1..1 | SHALL |  | [4499-34396](#C_4499-34396) |  |
| role | 1..1 | SHALL |  | [4499-34394](#C_4499-34394) |  |
| @classCode | 1..1 | SHALL |  | [4499-34534](#C_4499-34534) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34397](#C_4499-34397) |  |
| participation | 0..\* | MAY |  | [4499-35228](#C_4499-35228) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35232](#C_4499-35232) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36163](#C_4499-36163) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35230](#C_4499-35230) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35233](#C_4499-35233) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36164](#C_4499-36164) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35862](#C_4499-35862) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35864](#C_4499-35864) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36165](#C_4499-36165) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35234](#C_4499-35234) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35236](#C_4499-35236) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36166](#C_4499-36166) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36167](#C_4499-36167) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36169](#C_4499-36169) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36168](#C_4499-36168) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30817](#C_4499-30817) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30818](#C_4499-30818) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30819](#C_4499-30819) | [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:4499-30801).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30802).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30806).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30803).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30804) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.37" (CONF:4499-30805).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33385).
5. SHALL contain exactly one [1..1] id (CONF:4499-30807).
6. SHALL contain exactly one [1..1] code (CONF:4499-30808).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30809).
7. SHALL contain exactly one [1..1] title (CONF:4499-35946).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30811).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30812).
9. MAY contain zero or one [0..1] participation (CONF:4499-34392) 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:4499-34395).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34393).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34396).  
         Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
   3. SHALL contain exactly one [1..1] role (CONF:4499-34394).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34534).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-34397).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35228) 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:4499-35232).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36163).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35230) 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:4499-35233).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36164).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35862) 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:4499-35864).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36165).
13. MAY contain zero or one [0..1] participation (CONF:4499-35234) 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:4499-35236).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36166).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36167) 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:4499-36169).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36168).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30817) 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:4499-30818).
    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:4499-30819).

Figure 39: Intervention, Recommended (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.37" extension="2021-02-01"/>

</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 85: Laboratory Test Reference Range Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test Component](#E_Laboratory_Test_Component) (optional)  [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (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 86: 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 (V4)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01 (open)]

Table 87: Laboratory Test, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 88: Laboratory Test, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30389](#C_4499-30389) | PROC |
| @moodCode | 1..1 | SHALL |  | [4499-30390](#C_4499-30390) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-30391](#C_4499-30391) |  |
| templateId | 1..1 | SHALL |  | [4499-30392](#C_4499-30392) |  |
| item | 1..1 | SHALL |  | [4499-30393](#C_4499-30393) |  |
| @root | 1..1 | SHALL |  | [4499-30394](#C_4499-30394) | 2.16.840.1.113883.10.20.28.4.41 |
| @extension | 1..1 | SHALL |  | [4499-33649](#C_4499-33649) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30395](#C_4499-30395) |  |
| code | 1..1 | SHALL |  | [4499-30396](#C_4499-30396) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30397](#C_4499-30397) |  |
| title | 1..1 | SHALL |  | [4499-35947](#C_4499-35947) |  |
| statusCode | 1..1 | SHALL |  | [4499-33109](#C_4499-33109) |  |
| @code | 1..1 | SHALL |  | [4499-33110](#C_4499-33110) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-33495](#C_4499-33495) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33497](#C_4499-33497) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33496](#C_4499-33496) |  |
| low | 1..1 | SHALL |  | [4499-33498](#C_4499-33498) |  |
| role | 1..1 | SHALL |  | [4499-33589](#C_4499-33589) |  |
| @classCode | 1..1 | SHALL |  | [4499-33590](#C_4499-33590) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33591](#C_4499-33591) |  |
| participation | 0..\* | MAY |  | [4499-35237](#C_4499-35237) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35241](#C_4499-35241) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36170](#C_4499-36170) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35239](#C_4499-35239) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35242](#C_4499-35242) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36171](#C_4499-36171) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35865](#C_4499-35865) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35867](#C_4499-35867) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36172](#C_4499-36172) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35243](#C_4499-35243) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35245](#C_4499-35245) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36173](#C_4499-36173) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36174](#C_4499-36174) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36176](#C_4499-36176) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36175](#C_4499-36175) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30405](#C_4499-30405) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30406](#C_4499-30406) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30407](#C_4499-30407) | [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:4499-30389).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30390).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30391).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30392).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30393) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.41" (CONF:4499-30394).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33649).
5. SHALL contain exactly one [1..1] id (CONF:4499-30395).
6. SHALL contain exactly one [1..1] code (CONF:4499-30396).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30397).
7. SHALL contain exactly one [1..1] title (CONF:4499-35947).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-33109).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-33110).
9. MAY contain zero or one [0..1] participation (CONF:4499-33495) 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:4499-33497).
   2. SHALL contain exactly one [1..1] time (CONF:4499-33496).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-33498).  
         Note: QDM Attribute: Author dateTime (The time the order is signed)
   3. SHALL contain exactly one [1..1] role (CONF:4499-33589).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33590).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-33591).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35237) 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:4499-35241).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36170).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35239) 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:4499-35242).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36171).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35865) 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:4499-35867).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36172).
13. MAY contain zero or one [0..1] participation (CONF:4499-35243) 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:4499-35245).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36173).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36174) 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:4499-36176).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36175).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30405) 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:4499-30406).
    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:4499-30407).

Figure 41: Laboratory Test, Order (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.41" extension="2021-02-01"/>

</templateId>

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

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

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

<statusCode code="active"/>

</procedureCriteria>

Laboratory Test, Performed (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01 (open)]

Table 89: Laboratory Test, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Laboratory Test Component](#E_Laboratory_Test_Component) (optional)  [Laboratory Test Reference Range](#E_Laboratory_Test_Reference_Range) (optional)  [Related To](#E_Related_To_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 90: Laboratory Test, Performed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30364](#C_4499-30364) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-33237](#C_4499-33237) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-30365](#C_4499-30365) |  |
| templateId | 1..1 | SHALL |  | [4499-30366](#C_4499-30366) |  |
| item | 1..1 | SHALL |  | [4499-30367](#C_4499-30367) |  |
| @root | 1..1 | SHALL |  | [4499-30368](#C_4499-30368) | 2.16.840.1.113883.10.20.28.4.42 |
| @extension | 1..1 | SHALL |  | [4499-33373](#C_4499-33373) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30369](#C_4499-30369) |  |
| code | 1..1 | SHALL |  | [4499-30370](#C_4499-30370) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30371](#C_4499-30371) |  |
| title | 1..1 | SHALL |  | [4499-35948](#C_4499-35948) |  |
| statusCode | 1..1 | SHALL |  | [4499-30373](#C_4499-30373) |  |
| @code | 1..1 | SHALL |  | [4499-30509](#C_4499-30509) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-30374](#C_4499-30374) |  |
| low | 0..1 | MAY |  | [4499-30375](#C_4499-30375) |  |
| high | 0..1 | MAY |  | [4499-30376](#C_4499-30376) |  |
| value | 0..0 | SHALL NOT |  | [4499-33611](#C_4499-33611) |  |
| interpretationCode | 0..1 | MAY |  | [4499-35958](#C_4499-35958) |  |
| methodCode | 0..1 | MAY |  | [4499-30377](#C_4499-30377) |  |
| item | 1..1 | SHALL |  | [4499-30378](#C_4499-30378) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30379](#C_4499-30379) |  |
| participation | 0..1 | MAY |  | [4499-34535](#C_4499-34535) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34538](#C_4499-34538) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34536](#C_4499-34536) |  |
| low | 1..1 | SHALL |  | [4499-34539](#C_4499-34539) |  |
| role | 1..1 | SHALL |  | [4499-34537](#C_4499-34537) |  |
| @classCode | 1..1 | SHALL |  | [4499-34540](#C_4499-34540) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34541](#C_4499-34541) |  |
| participation | 0..\* | MAY |  | [4499-35246](#C_4499-35246) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35250](#C_4499-35250) | PART |
| role | 1..1 | SHALL |  | [4499-36177](#C_4499-36177) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35248](#C_4499-35248) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35251](#C_4499-35251) | PART |
| role | 1..1 | SHALL |  | [4499-36178](#C_4499-36178) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35871](#C_4499-35871) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35873](#C_4499-35873) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36179](#C_4499-36179) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35252](#C_4499-35252) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35254](#C_4499-35254) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36180](#C_4499-36180) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-30380](#C_4499-30380) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34061](#C_4499-34061) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30382](#C_4499-30382) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34767](#C_4499-34767) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34768](#C_4499-34768) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4499-34769](#C_4499-34769) | [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 |  | [4499-33372](#C_4499-33372) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34618](#C_4499-34618) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-33375](#C_4499-33375) | [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 |  | [4499-34062](#C_4499-34062) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34066](#C_4499-34066) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFV |
| observationCriteria | 1..1 | SHALL |  | [4499-34412](#C_4499-34412) | [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 |  | [4499-34617](#C_4499-34617) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34619](#C_4499-34619) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34620](#C_4499-34620) | [Laboratory Test Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.126:2017-05-01](#E_Laboratory_Test_Component) |
| outboundRelationship | 0..\* | MAY |  | [4499-35956](#C_4499-35956) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35959](#C_4499-35959) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35957](#C_4499-35957) | [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:4499-30364).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-33237).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30365).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30366).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30367) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.42" (CONF:4499-30368).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33373).
5. SHALL contain exactly one [1..1] id (CONF:4499-30369).
6. SHALL contain exactly one [1..1] code (CONF:4499-30370).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30371).
7. SHALL contain exactly one [1..1] title (CONF:4499-35948).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-30373).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30509).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-30374) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-30375).  
      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:4499-30376).  
      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:4499-33611).  
    Note: Use Result (V2) template for the QDM Attribute: Result
11. MAY contain zero or one [0..1] interpretationCode (CONF:4499-35958).  
    Note: QDM Attribute: Interpretation
12. MAY contain zero or one [0..1] methodCode (CONF:4499-30377).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-30378).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30379).
13. MAY contain zero or one [0..1] participation (CONF:4499-34535) 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:4499-34538).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34536).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34539).  
          Note: QDM Attribute: Author Datetime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34537).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34540).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34541).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35246) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35250).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36177).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35248) such that it  
    Note: QDM Attribute: Performer
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35251).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36178).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35871) 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:4499-35873).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36179).
17. MAY contain zero or one [0..1] participation (CONF:4499-35252) 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:4499-35254).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36180).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30380) 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:4499-34061).
    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:4499-30382).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34767) 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:4499-34768).
    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:4499-34769).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33372) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34618).
    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:4499-33375).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34062) 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:4499-34066).
    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:4499-34412).
22. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34617) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34619).
    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:4499-34620).
23. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-35956) such that it  
    Note: QDM Attribute: Related To
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-35959).
    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:4499-35957).

Figure 42: Laboratory Test, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.42" extension="2021-02-01"/>

</templateId>

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

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

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

<statusCode code="completed"/>

</observationCriteria>

Laboratory Test, Recommended (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01 (open)]

Table 91: Laboratory Test, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 92: Laboratory Test, Recommended (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30414](#C_4499-30414) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-30415](#C_4499-30415) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-30416](#C_4499-30416) |  |
| templateId | 1..1 | SHALL |  | [4499-30417](#C_4499-30417) |  |
| item | 1..1 | SHALL |  | [4499-30418](#C_4499-30418) |  |
| @root | 1..1 | SHALL |  | [4499-30419](#C_4499-30419) | 2.16.840.1.113883.10.20.28.4.43 |
| @extension | 1..1 | SHALL |  | [4499-33692](#C_4499-33692) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30420](#C_4499-30420) |  |
| code | 1..1 | SHALL |  | [4499-30421](#C_4499-30421) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30422](#C_4499-30422) |  |
| title | 1..1 | SHALL |  | [4499-35949](#C_4499-35949) |  |
| statusCode | 1..1 | SHALL |  | [4499-30424](#C_4499-30424) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [4499-30510](#C_4499-30510) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| participation | 0..1 | MAY |  | [4499-34413](#C_4499-34413) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34416](#C_4499-34416) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34414](#C_4499-34414) |  |
| low | 1..1 | SHALL |  | [4499-34417](#C_4499-34417) |  |
| role | 1..1 | SHALL |  | [4499-34415](#C_4499-34415) |  |
| @classCode | 1..1 | SHALL |  | [4499-34418](#C_4499-34418) | ROL |
| id | 0..1 | MAY |  | [4499-34419](#C_4499-34419) |  |
| participation | 0..\* | MAY |  | [4499-35255](#C_4499-35255) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35259](#C_4499-35259) | PART |
| role | 1..1 | SHALL |  | [4499-36181](#C_4499-36181) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35257](#C_4499-35257) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35260](#C_4499-35260) | PART |
| role | 1..1 | SHALL |  | [4499-36182](#C_4499-36182) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35868](#C_4499-35868) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35870](#C_4499-35870) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36183](#C_4499-36183) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35261](#C_4499-35261) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35263](#C_4499-35263) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36184](#C_4499-36184) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36185](#C_4499-36185) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36187](#C_4499-36187) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36186](#C_4499-36186) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-30431](#C_4499-30431) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34115](#C_4499-34115) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30433](#C_4499-30433) | [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:4499-30414).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-30415).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-30416).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-30417).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-30418) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.43" (CONF:4499-30419).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33692).
5. SHALL contain exactly one [1..1] id (CONF:4499-30420).
6. SHALL contain exactly one [1..1] code (CONF:4499-30421).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30422).
7. SHALL contain exactly one [1..1] title (CONF:4499-35949).
8. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30424).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30510).
9. MAY contain zero or one [0..1] participation (CONF:4499-34413) 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:4499-34416).
   2. SHALL contain exactly one [1..1] time (CONF:4499-34414).
      1. This time SHALL contain exactly one [1..1] low (CONF:4499-34417).  
         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:4499-34415).
      1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34418).
      2. This role MAY contain zero or one [0..1] id (CONF:4499-34419).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35255) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35259).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36181).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35257) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35260).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36182).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35868) 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:4499-35870).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36183).
13. MAY contain zero or one [0..1] participation (CONF:4499-35261) 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:4499-35263).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36184).
14. MAY contain zero or more [0..\*] participation (CONF:4499-36185) 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:4499-36187).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36186).
15. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30431) 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:4499-34115).
    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:4499-30433).

Figure 43: Laboratory Test, Recommended (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.43" extension="2021-02-01"/>

</templateId>

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

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

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

<statusCode code="active"/>

</observationCriteria>

Medication, Active (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01 (open)]

Table 93: Medication, Active (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 94: Medication, Active (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31950](#C_4499-31950) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-31951](#C_4499-31951) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34809](#C_4499-34809) |  |
| templateId | 1..1 | SHALL |  | [4499-31953](#C_4499-31953) |  |
| item | 1..1 | SHALL |  | [4499-31954](#C_4499-31954) |  |
| @root | 1..1 | SHALL |  | [4499-31955](#C_4499-31955) | 2.16.840.1.113883.10.20.28.4.44 |
| @extension | 1..1 | SHALL |  | [4499-33376](#C_4499-33376) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31956](#C_4499-31956) |  |
| title | 1..1 | SHALL |  | [4499-35950](#C_4499-35950) |  |
| statusCode | 1..1 | SHALL |  | [4499-31958](#C_4499-31958) |  |
| @code | 1..1 | SHALL |  | [4499-31959](#C_4499-31959) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-31960](#C_4499-31960) |  |
| low | 0..1 | MAY |  | [4499-31961](#C_4499-31961) |  |
| high | 0..1 | MAY |  | [4499-31962](#C_4499-31962) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34803](#C_4499-34803) |  |
| period | 0..1 | MAY |  | [4499-34804](#C_4499-34804) |  |
| routeCode | 0..1 | MAY |  | [4499-33115](#C_4499-33115) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33116](#C_4499-33116) |  |
| doseQuantity | 0..1 | MAY |  | [4499-33117](#C_4499-33117) |  |
| participation | 1..1 | SHALL |  | [4499-33121](#C_4499-33121) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33122](#C_4499-33122) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-33123](#C_4499-33123) |  |
| playingMaterial | 1..1 | SHALL |  | [4499-33124](#C_4499-33124) |  |
| @classCode | 1..1 | SHALL |  | [4499-34116](#C_4499-34116) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-33125](#C_4499-33125) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-33126](#C_4499-33126) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33127](#C_4499-33127) |  |
| participation | 0..\* | MAY |  | [4499-35264](#C_4499-35264) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35268](#C_4499-35268) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36188](#C_4499-36188) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35266](#C_4499-35266) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35269](#C_4499-35269) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36189](#C_4499-36189) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35874](#C_4499-35874) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35876](#C_4499-35876) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36190](#C_4499-36190) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35270](#C_4499-35270) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35272](#C_4499-35272) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36191](#C_4499-36191) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administrated (CONF:4499-31950).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31951).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34809).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31953).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31954) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.44" (CONF:4499-31955).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33376).
5. SHALL contain exactly one [1..1] id (CONF:4499-31956).
6. SHALL contain exactly one [1..1] title (CONF:4499-35950).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-31958).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31959).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-31960) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31961).  
      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:4499-31962).  
      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:4499-34803) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-34804).
10. MAY contain zero or one [0..1] routeCode (CONF:4499-33115).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33116).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4499-33117).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4499-33121) 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:4499-33122).
    2. SHALL contain exactly one [1..1] role (CONF:4499-33123).
       1. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4499-33124).
          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:4499-34116).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-33125).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4499-33126).
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33127).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35264) 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:4499-35268).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36188).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35266) 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:4499-35269).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36189).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35874) 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:4499-35876).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36190).
16. MAY contain zero or one [0..1] participation (CONF:4499-35270) 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:4499-35272).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36191).

Figure 44: Medication, Active (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.44" extension="2021-02-01"/>

</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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01 (open)]

Table 95: Medication, Administered (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 96: Medication, Administered (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32047](#C_4499-32047) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-32048](#C_4499-32048) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-32049](#C_4499-32049) |  |
| templateId | 1..1 | SHALL |  | [4499-32050](#C_4499-32050) |  |
| item | 1..1 | SHALL |  | [4499-32051](#C_4499-32051) |  |
| @root | 1..1 | SHALL |  | [4499-32052](#C_4499-32052) | 2.16.840.1.113883.10.20.28.4.45 |
| @extension | 1..1 | SHALL |  | [4499-33386](#C_4499-33386) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32053](#C_4499-32053) |  |
| code | 1..1 | SHALL |  | [4499-32054](#C_4499-32054) |  |
| @code | 1..1 | SHALL |  | [4499-32055](#C_4499-32055) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4499-32056](#C_4499-32056) | 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-35951](#C_4499-35951) |  |
| statusCode | 1..1 | SHALL |  | [4499-32058](#C_4499-32058) |  |
| @code | 1..1 | SHALL |  | [4499-32059](#C_4499-32059) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-32060](#C_4499-32060) |  |
| low | 0..1 | MAY |  | [4499-32061](#C_4499-32061) |  |
| high | 0..1 | MAY |  | [4499-32062](#C_4499-32062) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34806](#C_4499-34806) |  |
| period | 0..1 | MAY |  | [4499-34807](#C_4499-34807) |  |
| routeCode | 0..1 | MAY |  | [4499-32506](#C_4499-32506) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32507](#C_4499-32507) |  |
| doseQuantity | 0..1 | MAY |  | [4499-33128](#C_4499-33128) |  |
| participation | 1..1 | SHALL |  | [4499-32497](#C_4499-32497) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32503](#C_4499-32503) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32498](#C_4499-32498) |  |
| @classCode | 1..1 | SHALL |  | [4499-32504](#C_4499-32504) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4499-32499](#C_4499-32499) |  |
| @classCode | 1..1 | SHALL |  | [4499-32500](#C_4499-32500) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32520](#C_4499-32520) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32501](#C_4499-32501) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32502](#C_4499-32502) |  |
| participation | 0..1 | MAY |  | [4499-34542](#C_4499-34542) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34545](#C_4499-34545) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34543](#C_4499-34543) |  |
| low | 1..1 | SHALL |  | [4499-34546](#C_4499-34546) |  |
| role | 1..1 | SHALL |  | [4499-34544](#C_4499-34544) |  |
| @classCode | 1..1 | SHALL |  | [4499-34547](#C_4499-34547) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34548](#C_4499-34548) |  |
| participation | 0..\* | MAY |  | [4499-35273](#C_4499-35273) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35277](#C_4499-35277) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36192](#C_4499-36192) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35275](#C_4499-35275) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35278](#C_4499-35278) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36193](#C_4499-36193) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35877](#C_4499-35877) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35879](#C_4499-35879) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36194](#C_4499-36194) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35279](#C_4499-35279) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35281](#C_4499-35281) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36195](#C_4499-36195) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-32511](#C_4499-32511) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32512](#C_4499-32512) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-32513](#C_4499-32513) | [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:4499-32047).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32048).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-32049).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32050).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32051) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.45" (CONF:4499-32052).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33386).
5. SHALL contain exactly one [1..1] id (CONF:4499-32053).
6. SHALL contain exactly one [1..1] code (CONF:4499-32054).
   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:4499-32055).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:4499-32056).
7. SHALL contain exactly one [1..1] title (CONF:4499-35951).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32058).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32059).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-32060) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-32061).  
      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:4499-32062).  
      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:4499-34806) such that it  
    Note: QDM Attribute: Frequency
    1. MAY contain zero or one [0..1] period (CONF:4499-34807).
11. MAY contain zero or one [0..1] routeCode (CONF:4499-32506).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32507).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4499-33128).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4499-32497) 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:4499-32503).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32498).
       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:4499-32504).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4499-32499).
          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:4499-32500).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-32520).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4499-32501).
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32502).
14. MAY contain zero or one [0..1] participation (CONF:4499-34542) 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:4499-34545).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34543).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34546).  
          Note: QDM Attribute: Author Time
    3. SHALL contain exactly one [1..1] role (CONF:4499-34544).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34547).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34548).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35273) 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:4499-35277).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36192).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35275) 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:4499-35278).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36193).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35877) 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:4499-35879).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36194).
18. MAY contain zero or one [0..1] participation (CONF:4499-35279) 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:4499-35281).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36195).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-32511) 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:4499-32512).
    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:4499-32513).  
       Note: QDM Attribute: Reason

Figure 45: Medication, Administered (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.45" extension="2021-02-01"/>

</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 (V4)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01 (open)]

Table 97: Medication, Discharge (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 98: Medication, Discharge (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32521](#C_4499-32521) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-32522](#C_4499-32522) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-33438](#C_4499-33438) |  |
| templateId | 1..1 | SHALL |  | [4499-32523](#C_4499-32523) |  |
| item | 1..1 | SHALL |  | [4499-32524](#C_4499-32524) |  |
| @root | 1..1 | SHALL |  | [4499-32525](#C_4499-32525) | 2.16.840.1.113883.10.20.28.4.48 |
| @extension | 1..1 | SHALL |  | [4499-33439](#C_4499-33439) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32526](#C_4499-32526) |  |
| code | 1..1 | SHALL |  | [4499-32527](#C_4499-32527) |  |
| @code | 1..1 | SHALL |  | [4499-32528](#C_4499-32528) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 10183-2 |
| @codeSystem | 1..1 | SHALL |  | [4499-32529](#C_4499-32529) | 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4499-35952](#C_4499-35952) |  |
| statusCode | 1..1 | SHALL |  | [4499-32531](#C_4499-32531) |  |
| @code | 1..1 | SHALL |  | [4499-32532](#C_4499-32532) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34810](#C_4499-34810) |  |
| period | 0..1 | MAY |  | [4499-34811](#C_4499-34811) |  |
| repeatNumber | 0..1 | MAY |  | [4499-32536](#C_4499-32536) |  |
| routeCode | 0..1 | MAY |  | [4499-32537](#C_4499-32537) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32538](#C_4499-32538) |  |
| doseQuantity | 0..1 | MAY |  | [4499-34437](#C_4499-34437) |  |
| participation | 1..1 | SHALL |  | [4499-32539](#C_4499-32539) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32540](#C_4499-32540) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32541](#C_4499-32541) |  |
| @classCode | 1..1 | SHALL |  | [4499-32542](#C_4499-32542) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingManufacturedMaterial | 1..1 | SHALL |  | [4499-32543](#C_4499-32543) |  |
| @classCode | 1..1 | SHALL |  | [4499-32544](#C_4499-32544) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32545](#C_4499-32545) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32546](#C_4499-32546) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32547](#C_4499-32547) |  |
| participation | 0..1 | MAY |  | [4499-34438](#C_4499-34438) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34442](#C_4499-34442) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34439](#C_4499-34439) |  |
| low | 1..1 | SHALL |  | [4499-34443](#C_4499-34443) |  |
| role | 1..1 | SHALL |  | [4499-34440](#C_4499-34440) |  |
| @classCode | 1..1 | SHALL |  | [4499-34444](#C_4499-34444) | ROL |
| id | 0..1 | MAY |  | [4499-34445](#C_4499-34445) |  |
| participation | 0..1 | MAY |  | [4499-35285](#C_4499-35285) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35289](#C_4499-35289) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-35286](#C_4499-35286) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..1 | MAY |  | [4499-35287](#C_4499-35287) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35290](#C_4499-35290) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-35288](#C_4499-35288) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..1 | MAY |  | [4499-35880](#C_4499-35880) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35884](#C_4499-35884) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-35881](#C_4499-35881) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35291](#C_4499-35291) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35293](#C_4499-35293) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35292](#C_4499-35292) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-35294](#C_4499-35294) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35298](#C_4499-35298) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36196](#C_4499-36196) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35296](#C_4499-35296) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35299](#C_4499-35299) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36197](#C_4499-36197) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35882](#C_4499-35882) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35885](#C_4499-35885) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36198](#C_4499-36198) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35300](#C_4499-35300) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35302](#C_4499-35302) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36199](#C_4499-36199) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34441](#C_4499-34441) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34446](#C_4499-34446) | REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34812](#C_4499-34812) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |
| outboundRelationship | 0..1 | MAY |  | [4499-34130](#C_4499-34130) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34131](#C_4499-34131) | RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-34132](#C_4499-34132) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-35282](#C_4499-35282) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35284](#C_4499-35284) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-35283](#C_4499-35283) | [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:4499-32521).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32522).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-33438).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32523).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32524) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.48" (CONF:4499-32525).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33439).
5. SHALL contain exactly one [1..1] id (CONF:4499-32526).
6. SHALL contain exactly one [1..1] code (CONF:4499-32527).
   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:4499-32528).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CONF:4499-32529).
7. SHALL contain exactly one [1..1] title (CONF:4499-35952).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32531).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32532).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34810) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-34811).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4499-32536).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] routeCode (CONF:4499-32537).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32538).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4499-34437).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4499-32539) 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:4499-32540).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32541).
       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:4499-32542).
       2. This role SHALL contain exactly one [1..1] playingManufacturedMaterial (CONF:4499-32543).
          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:4499-32544).
          2. This playingManufacturedMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-32545).
          3. This playingManufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4499-32546).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32547).
14. MAY contain zero or one [0..1] participation (CONF:4499-34438) 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:4499-34442).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34439).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34443).  
          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:4499-34440).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-34444).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34445).
15. MAY contain zero or one [0..1] participation (CONF:4499-35285) 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:4499-35289).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-35286).
16. MAY contain zero or one [0..1] participation (CONF:4499-35287) 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:4499-35290).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-35288).
17. MAY contain zero or one [0..1] participation (CONF:4499-35880) 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:4499-35884).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-35881).
18. MAY contain zero or one [0..1] participation (CONF:4499-35291) 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:4499-35293).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35292).
19. MAY contain zero or more [0..\*] participation (CONF:4499-35294) 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:4499-35298).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36196).
20. MAY contain zero or more [0..\*] participation (CONF:4499-35296) 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:4499-35299).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36197).
21. MAY contain zero or more [0..\*] participation (CONF:4499-35882) 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:4499-35885).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36198).
22. MAY contain zero or one [0..1] participation (CONF:4499-35300) 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:4499-35302).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36199).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34441) such that it  
    Note: QDM Attribute: Supply
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34446).
    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:4499-34812).
24. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34130) such that it  
    Note: QDM Attribute: Reason
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CONF:4499-34131).
    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:4499-34132).
25. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-35282) 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:4499-35284).
    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:4499-35283).

Figure 46: Medication, Discharge (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.48" extension="2021-02-01"/>

</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 (V4)

[supplyCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01 (open)]

Table 99: Medication, Dispensed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Dosage](#E_Dosage) (optional)  [Related To](#E_Related_To_V1) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 100: Medication, Dispensed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supplyCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32560](#C_4499-32560) | SPLY |
| @moodCode | 1..1 | SHALL |  | [4499-32561](#C_4499-32561) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-32562](#C_4499-32562) |  |
| templateId | 1..1 | SHALL |  | [4499-32563](#C_4499-32563) |  |
| item | 1..1 | SHALL |  | [4499-32564](#C_4499-32564) |  |
| @root | 1..1 | SHALL |  | [4499-32565](#C_4499-32565) | 2.16.840.1.113883.10.20.28.4.49 |
| @extension | 1..1 | SHALL |  | [4499-33752](#C_4499-33752) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32566](#C_4499-32566) |  |
| title | 1..1 | SHALL |  | [4499-35953](#C_4499-35953) |  |
| statusCode | 1..1 | SHALL |  | [4499-32568](#C_4499-32568) |  |
| @code | 1..1 | SHALL |  | [4499-32582](#C_4499-32582) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-32569](#C_4499-32569) |  |
| low | 1..1 | SHALL |  | [4499-32570](#C_4499-32570) |  |
| high | 0..1 | MAY |  | [4499-34860](#C_4499-34860) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34856](#C_4499-34856) |  |
| period | 0..1 | MAY |  | [4499-35307](#C_4499-35307) |  |
| repeatNumber | 0..1 | MAY |  | [4499-32572](#C_4499-32572) |  |
| quantity | 0..1 | MAY |  | [4499-34858](#C_4499-34858) |  |
| participation | 1..1 | SHALL |  | [4499-32573](#C_4499-32573) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32574](#C_4499-32574) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32575](#C_4499-32575) |  |
| @classCode | 1..1 | SHALL |  | [4499-32576](#C_4499-32576) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingMaterial | 0..1 | MAY |  | [4499-32577](#C_4499-32577) |  |
| @classCode | 1..1 | SHALL |  | [4499-32578](#C_4499-32578) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32579](#C_4499-32579) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32580](#C_4499-32580) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32581](#C_4499-32581) |  |
| participation | 0..1 | MAY |  | [4499-34861](#C_4499-34861) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34864](#C_4499-34864) | AUT |
| time | 1..1 | SHALL |  | [4499-34862](#C_4499-34862) |  |
| low | 1..1 | SHALL |  | [4499-35308](#C_4499-35308) |  |
| role | 1..1 | SHALL |  | [4499-34863](#C_4499-34863) |  |
| @classCode | 1..1 | SHALL |  | [4499-35309](#C_4499-35309) | ROL |
| participation | 0..\* | MAY |  | [4499-35303](#C_4499-35303) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35313](#C_4499-35313) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36200](#C_4499-36200) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35315](#C_4499-35315) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35317](#C_4499-35317) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36201](#C_4499-36201) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35886](#C_4499-35886) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35890](#C_4499-35890) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36202](#C_4499-36202) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35318](#C_4499-35318) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35324](#C_4499-35324) | PART |
| patient | 1..1 | SHALL |  | [4499-35319](#C_4499-35319) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36203](#C_4499-36203) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36211](#C_4499-36211) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36204](#C_4499-36204) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| participation | 0..\* | MAY |  | [4499-35322](#C_4499-35322) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35326](#C_4499-35326) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36205](#C_4499-36205) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35320](#C_4499-35320) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35325](#C_4499-35325) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36206](#C_4499-36206) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35888](#C_4499-35888) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35891](#C_4499-35891) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36207](#C_4499-36207) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35327](#C_4499-35327) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35329](#C_4499-35329) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36208](#C_4499-36208) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34448](#C_4499-34448) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34449](#C_4499-34449) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34450](#C_4499-34450) | [Dosage (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01](#E_Dosage) |
| outboundRelationship | 0..1 | MAY |  | [4499-32589](#C_4499-32589) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32590](#C_4499-32590) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-32591](#C_4499-32591) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-35305](#C_4499-35305) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35314](#C_4499-35314) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-35306](#C_4499-35306) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01](#E_Days_Supplied) |
| outboundRelationship | 0..\* | MAY |  | [4499-36209](#C_4499-36209) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36212](#C_4499-36212) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36210](#C_4499-36210) | [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="SPLY" Supply (CONF:4499-32560).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32561).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-32562).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32563).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32564) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.49" (CONF:4499-32565).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33752).
5. SHALL contain exactly one [1..1] id (CONF:4499-32566).
6. SHALL contain exactly one [1..1] title (CONF:4499-35953).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-32568).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32582).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-32569) such that it  
   Note: QDM Attribute: Relevant Period
   1. SHALL contain exactly one [1..1] low (CONF:4499-32570).  
      Note: startTime of Relevant Period (when the first administration of the medication is expected) or QDM Attribute: Relevant dateTime
   2. MAY contain zero or one [0..1] high (CONF:4499-34860).  
      Note: stopTime of Relevant Period (when the medication supply provided by the dispensing event is expected to be completed)
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34856) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-35307).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4499-32572).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] quantity (CONF:4499-34858).  
    Note: QDM Attribute: Supply
12. SHALL contain exactly one [1..1] participation (CONF:4499-32573) 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:4499-32574).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32575).
       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:4499-32576).
       2. This role MAY contain zero or one [0..1] playingMaterial (CONF:4499-32577).
          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:4499-32578).
          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:4499-32579).
          3. The playingMaterial, if present, SHALL contain exactly one [1..1] code (CONF:4499-32580).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32581).
13. MAY contain zero or one [0..1] participation (CONF:4499-34861) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4499-34864).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34862).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-35308).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34863).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-35309).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35303) 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:4499-35313).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36200).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35315) 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:4499-35317).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36201).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35886) 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:4499-35890).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36202).
17. MAY contain zero or one [0..1] participation (CONF:4499-35318) such that it  
    Note: QDM Attribute: Dispenser
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35324).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35319).
18. MAY contain zero or more [0..\*] participation (CONF:4499-36203) 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:4499-36211).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36204).
19. MAY contain zero or more [0..\*] participation (CONF:4499-35322) 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:4499-35326).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36205).
20. MAY contain zero or more [0..\*] participation (CONF:4499-35320) 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:4499-35325).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36206).
21. MAY contain zero or more [0..\*] participation (CONF:4499-35888) 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:4499-35891).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36207).
22. MAY contain zero or one [0..1] participation (CONF:4499-35327) 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:4499-35329).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36208).
23. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34448) 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:4499-34449).
    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:4499-34450).
24. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-32589) 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:4499-32590).
    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:4499-32591).
25. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-35305) 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:4499-35314).
    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:4499-35306).
26. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36209) 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:4499-36212).
    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:4499-36210).

Figure 47: Medication, Dispensed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.49" extension="2021-02-01"/>

</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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01 (open)]

Table 101: Medication, Order (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Supply](#E_Supply) (optional)  [Days Supplied](#E_Days_Supplied) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 102: Medication, Order (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-30218](#C_4499-30218) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-29049](#C_4499-29049) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-31037](#C_4499-31037) |  |
| templateId | 1..1 | SHALL |  | [4499-29050](#C_4499-29050) |  |
| item | 1..1 | SHALL |  | [4499-29051](#C_4499-29051) |  |
| @root | 1..1 | SHALL |  | [4499-29052](#C_4499-29052) | 2.16.840.1.113883.10.20.28.4.51 |
| @extension | 1..1 | SHALL |  | [4499-33443](#C_4499-33443) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-30185](#C_4499-30185) |  |
| title | 1..1 | SHALL |  | [4499-35954](#C_4499-35954) |  |
| statusCode | 1..1 | SHALL |  | [4499-30227](#C_4499-30227) |  |
| @code | 1..1 | SHALL |  | [4499-30228](#C_4499-30228) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-30504](#C_4499-30504) |  |
| low | 0..1 | MAY |  | [4499-31035](#C_4499-31035) |  |
| high | 0..1 | MAY |  | [4499-34859](#C_4499-34859) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34816](#C_4499-34816) |  |
| period | 0..1 | MAY |  | [4499-34817](#C_4499-34817) |  |
| repeatNumber | 0..1 | MAY |  | [4499-31038](#C_4499-31038) |  |
| routeCode | 0..1 | MAY |  | [4499-30188](#C_4499-30188) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30231](#C_4499-30231) |  |
| doseQuantity | 0..1 | MAY |  | [4499-30224](#C_4499-30224) |  |
| participation | 1..1 | SHALL |  | [4499-29053](#C_4499-29053) |  |
| @typeCode | 1..1 | SHALL |  | [4499-29054](#C_4499-29054) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-29055](#C_4499-29055) |  |
| @classCode | 1..1 | SHALL |  | [4499-29056](#C_4499-29056) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingMaterial | 1..1 | SHALL |  | [4499-29057](#C_4499-29057) |  |
| @classCode | 1..1 | SHALL |  | [4499-29058](#C_4499-29058) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| @determinerCode | 1..1 | SHALL |  | [4499-29059](#C_4499-29059) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-29060](#C_4499-29060) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-30164](#C_4499-30164) |  |
| participation | 0..1 | MAY |  | [4499-33441](#C_4499-33441) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33444](#C_4499-33444) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33442](#C_4499-33442) |  |
| low | 1..1 | SHALL |  | [4499-33500](#C_4499-33500) |  |
| role | 1..1 | SHALL |  | [4499-33592](#C_4499-33592) |  |
| @classCode | 1..1 | SHALL |  | [4499-33593](#C_4499-33593) | ROL |
| participation | 0..1 | MAY |  | [4499-35330](#C_4499-35330) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35334](#C_4499-35334) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| role | 1..1 | SHALL |  | [4499-35331](#C_4499-35331) |  |
| @classCode | 1..1 | SHALL |  | [4499-35332](#C_4499-35332) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = EXLOC |
| code | 1..1 | SHALL |  | [4499-35333](#C_4499-35333) |  |
| participation | 0..\* | MAY |  | [4499-35335](#C_4499-35335) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35339](#C_4499-35339) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36213](#C_4499-36213) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35337](#C_4499-35337) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35340](#C_4499-35340) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36214](#C_4499-36214) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35892](#C_4499-35892) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35894](#C_4499-35894) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36215](#C_4499-36215) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35341](#C_4499-35341) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35343](#C_4499-35343) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-35342](#C_4499-35342) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-30190](#C_4499-30190) |  |
| @typeCode | 1..1 | SHALL |  | [4499-30191](#C_4499-30191) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-30192](#C_4499-30192) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34451](#C_4499-34451) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34452](#C_4499-34452) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34818](#C_4499-34818) | [Supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01](#E_Supply) |
| outboundRelationship | 0..1 | MAY |  | [4499-34895](#C_4499-34895) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34897](#C_4499-34897) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34896](#C_4499-34896) | [Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01](#E_Days_Supplied) |
| outboundRelationship | 0..\* | MAY |  | [4499-36216](#C_4499-36216) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36218](#C_4499-36218) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36217](#C_4499-36217) | [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="SBADM" Substance Administration (CONF:4499-30218).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-29049).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31037).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-29050).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-29051) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.51" (CONF:4499-29052).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33443).
5. SHALL contain exactly one [1..1] id (CONF:4499-30185).
6. SHALL contain exactly one [1..1] title (CONF:4499-35954).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-30227).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-30228).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-30504) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31035).  
      Note: startTime = when the first administration of the medication is expected
   2. MAY contain zero or one [0..1] high (CONF:4499-34859).  
      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:4499-34816) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-34817).
10. MAY contain zero or one [0..1] repeatNumber (CONF:4499-31038).  
    Note: QDM Attribute: Refills
11. MAY contain zero or one [0..1] routeCode (CONF:4499-30188).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30231).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4499-30224).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4499-29053) 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:4499-29054).
    2. SHALL contain exactly one [1..1] role (CONF:4499-29055).
       1. This role SHALL contain exactly one [1..1] @classCode="MANU" Manufactured (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-29056).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4499-29057).
          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:4499-29058).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-29059).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4499-29060).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-30164).
14. MAY contain zero or one [0..1] participation (CONF:4499-33441) 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:4499-33444).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33442).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33500).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-33592).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CONF:4499-33593).
15. MAY contain zero or one [0..1] participation (CONF:4499-35330) 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:4499-35334).
    2. SHALL contain exactly one [1..1] role (CONF:4499-35331).
       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:4499-35332).
       2. This role SHALL contain exactly one [1..1] code (CONF:4499-35333).  
          Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered.
16. MAY contain zero or more [0..\*] participation (CONF:4499-35335) 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:4499-35339).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36213).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35337) 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:4499-35340).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36214).
18. MAY contain zero or more [0..\*] participation (CONF:4499-35892) 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:4499-35894).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36215).
19. MAY contain zero or one [0..1] participation (CONF:4499-35341) 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:4499-35343).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-35342).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-30190) 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:4499-30191).
    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:4499-30192).
21. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34451) 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:4499-34452).
    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:4499-34818).
22. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34895) 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:4499-34897).
    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:4499-34896).
23. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36216) 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:4499-36218).
    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:4499-36217).

Figure 48: Medication, Order (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.51" extension="2021-02-01"/>

</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 (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01 (open)]

Table 103: Patient Care Experience (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 104: Patient Care Experience (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32204](#C_4499-32204) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-32205](#C_4499-32205) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-35344](#C_4499-35344) |  |
| templateId | 1..1 | SHALL |  | [4499-32206](#C_4499-32206) |  |
| item | 1..1 | SHALL |  | [4499-32207](#C_4499-32207) |  |
| @root | 1..1 | SHALL |  | [4499-32208](#C_4499-32208) | 2.16.840.1.113883.10.20.28.4.52 |
| @extension | 1..1 | SHALL |  | [4499-33700](#C_4499-33700) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32209](#C_4499-32209) |  |
| code | 1..1 | SHALL |  | [4499-32210](#C_4499-32210) |  |
| @code | 1..1 | SHALL |  | [4499-32211](#C_4499-32211) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 406193000 |
| @codeSystem | 1..1 | SHALL |  | [4499-32212](#C_4499-32212) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) |
| title | 1..1 | SHALL |  | [4499-35937](#C_4499-35937) |  |
| statusCode | 1..1 | SHALL |  | [4499-32216](#C_4499-32216) |  |
| @code | 1..1 | SHALL |  | [4499-32217](#C_4499-32217) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34388](#C_4499-34388) |  |
| low | 1..1 | SHALL |  | [4499-34389](#C_4499-34389) |  |
| value | 1..1 | SHALL | CD | [4499-32214](#C_4499-32214) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32215](#C_4499-32215) |  |
| participation | 0..\* | MAY |  | [4499-35345](#C_4499-35345) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35351](#C_4499-35351) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36219](#C_4499-36219) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35347](#C_4499-35347) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35352](#C_4499-35352) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36220](#C_4499-36220) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35895](#C_4499-35895) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35897](#C_4499-35897) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36221](#C_4499-36221) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35349](#C_4499-35349) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35353](#C_4499-35353) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36222](#C_4499-36222) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-32204).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32205).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-35344).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32206).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32207) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.52" (CONF:4499-32208).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33700).
5. SHALL contain exactly one [1..1] id (CONF:4499-32209).
6. SHALL contain exactly one [1..1] code (CONF:4499-32210).
   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:4499-32211).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4499-32212).
7. SHALL contain exactly one [1..1] title (CONF:4499-35937).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32216).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32217).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34388) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4499-34389).  
      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:4499-32214).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32215).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35345).  
    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:4499-35351).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36219).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35347).  
    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:4499-35352).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36220).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35895).  
    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:4499-35897).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36221).
14. MAY contain zero or one [0..1] participation (CONF:4499-35349).  
    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:4499-35353).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36222).

Figure 49: Patient Care Experience (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.52" extension="2021-02-01"/>

</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 105: Patient Characteristic (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) |  |

This template represents the QDM data type: Patient Characteristic.

Timing: The time the characteristic is authored.

Table 106: 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 107: Patient Characteristic Birth Date Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 108: 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 109: Patient Characteristic Clinical Trial Participant Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 110: 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 111: Patient Characteristic Ethnicity Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) |  |

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

This template represents a patient's ethnicity.

Table 112: 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 113: Patient Characteristic Expired Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 114: 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 115: Patient Characteristic Payer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 116: 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 117: Patient Characteristic Race Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) |  |

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

This template represents a patient's race.

Table 118: 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 119: Patient Characteristic Sex Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) |  |

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

This template represents a patient's sex.

Table 120: 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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01 (open)]

Table 121: Physical Exam, Order (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 122: Physical Exam, Order (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31405](#C_4499-31405) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-31406](#C_4499-31406) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-31407](#C_4499-31407) |  |
| templateId | 1..1 | SHALL |  | [4499-31408](#C_4499-31408) |  |
| item | 1..1 | SHALL |  | [4499-31409](#C_4499-31409) |  |
| @root | 1..1 | SHALL |  | [4499-31410](#C_4499-31410) | 2.16.840.1.113883.10.20.28.4.61 |
| @extension | 1..1 | SHALL |  | [4499-33437](#C_4499-33437) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31411](#C_4499-31411) |  |
| code | 1..1 | SHALL |  | [4499-31412](#C_4499-31412) |  |
| @code | 1..1 | SHALL |  | [4499-31434](#C_4499-31434) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4499-31435](#C_4499-31435) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-31413](#C_4499-31413) |  |
| statusCode | 1..1 | SHALL |  | [4499-31414](#C_4499-31414) |  |
| @code | 1..1 | SHALL |  | [4499-31415](#C_4499-31415) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| value | 1..1 | SHALL | CD | [4499-31437](#C_4499-31437) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31438](#C_4499-31438) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-31422](#C_4499-31422) |  |
| item | 0..1 | SHOULD |  | [4499-31423](#C_4499-31423) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31424](#C_4499-31424) |  |
| participation | 0..1 | MAY |  | [4499-33501](#C_4499-33501) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33503](#C_4499-33503) | AUT |
| time | 1..1 | SHALL |  | [4499-33502](#C_4499-33502) |  |
| low | 1..1 | SHALL |  | [4499-33504](#C_4499-33504) |  |
| role | 1..1 | SHALL |  | [4499-33595](#C_4499-33595) |  |
| @classCode | 1..1 | SHALL |  | [4499-33596](#C_4499-33596) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33597](#C_4499-33597) |  |
| participation | 0..\* | MAY |  | [4499-35373](#C_4499-35373) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35379](#C_4499-35379) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36223](#C_4499-36223) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35377](#C_4499-35377) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35381](#C_4499-35381) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36224](#C_4499-36224) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35898](#C_4499-35898) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35899](#C_4499-35899) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36225](#C_4499-36225) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35375](#C_4499-35375) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35380](#C_4499-35380) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36226](#C_4499-36226) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36227](#C_4499-36227) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36229](#C_4499-36229) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36228](#C_4499-36228) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-31431](#C_4499-31431) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31432](#C_4499-31432) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31433](#C_4499-31433) | [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:4499-31405).
2. SHALL contain exactly one [1..1] @moodCode="RQO" request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31406).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31407).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31408).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31409) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.61" (CONF:4499-31410).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33437).
5. SHALL contain exactly one [1..1] id (CONF:4499-31411).
6. SHALL contain exactly one [1..1] code (CONF:4499-31412).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4499-31434).
   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:4499-31435).
7. SHALL contain exactly one [1..1] title (CONF:4499-31413).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31414).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31415).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-31437).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31438).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-31422).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4499-31423).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31424).
11. MAY contain zero or one [0..1] participation (CONF:4499-33501) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4499-33503).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33502).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33504).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4499-33595).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33596).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-33597).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35373) 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:4499-35379).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36223).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35377) 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:4499-35381).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36224).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35898) 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:4499-35899).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36225).
15. MAY contain zero or one [0..1] participation (CONF:4499-35375) 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:4499-35380).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36226).
16. MAY contain zero or more [0..\*] participation (CONF:4499-36227) 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:4499-36229).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36228).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31431) 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:4499-31432).
    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:4499-31433).

Figure 58: Physical Exam, Order (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.61" extension="2021-02-01"/>

</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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01 (open)]

Table 123: Physical Exam, Performed (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 124: Physical Exam, Performed (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31251](#C_4499-31251) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-31252](#C_4499-31252) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-31253](#C_4499-31253) |  |
| templateId | 1..1 | SHALL |  | [4499-31254](#C_4499-31254) |  |
| item | 1..1 | SHALL |  | [4499-31255](#C_4499-31255) |  |
| @root | 1..1 | SHALL |  | [4499-31256](#C_4499-31256) | 2.16.840.1.113883.10.20.28.4.62 |
| @extension | 1..1 | SHALL |  | [4499-33428](#C_4499-33428) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31257](#C_4499-31257) |  |
| code | 1..1 | SHALL |  | [4499-31258](#C_4499-31258) |  |
| @code | 1..1 | SHALL |  | [4499-31439](#C_4499-31439) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4499-31440](#C_4499-31440) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-31260](#C_4499-31260) |  |
| statusCode | 1..1 | SHALL |  | [4499-31261](#C_4499-31261) |  |
| @code | 1..1 | SHALL |  | [4499-31262](#C_4499-31262) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-31263](#C_4499-31263) |  |
| low | 0..1 | MAY |  | [4499-31264](#C_4499-31264) |  |
| high | 0..1 | MAY |  | [4499-31265](#C_4499-31265) |  |
| value | 1..1 | SHALL | CD | [4499-31441](#C_4499-31441) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31442](#C_4499-31442) |  |
| methodCode | 0..1 | MAY |  | [4499-31267](#C_4499-31267) |  |
| item | 1..1 | SHALL |  | [4499-31268](#C_4499-31268) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31269](#C_4499-31269) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-31270](#C_4499-31270) |  |
| item | 0..1 | SHOULD |  | [4499-31271](#C_4499-31271) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31272](#C_4499-31272) |  |
| participation | 0..1 | MAY |  | [4499-34549](#C_4499-34549) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34552](#C_4499-34552) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34550](#C_4499-34550) |  |
| low | 1..1 | SHALL |  | [4499-34553](#C_4499-34553) |  |
| role | 1..1 | SHALL |  | [4499-34551](#C_4499-34551) |  |
| @classCode | 1..1 | SHALL |  | [4499-34554](#C_4499-34554) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34555](#C_4499-34555) |  |
| participation | 0..\* | MAY |  | [4499-35364](#C_4499-35364) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35370](#C_4499-35370) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36230](#C_4499-36230) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35368](#C_4499-35368) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35372](#C_4499-35372) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36231](#C_4499-36231) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35900](#C_4499-35900) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35902](#C_4499-35902) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36232](#C_4499-36232) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35366](#C_4499-35366) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35371](#C_4499-35371) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36233](#C_4499-36233) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-31279](#C_4499-31279) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31280](#C_4499-31280) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-33448](#C_4499-33448) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-33614](#C_4499-33614) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33615](#C_4499-33615) | VALUE |
| observationCriteria | 1..1 | SHALL |  | [4499-33616](#C_4499-33616) | [Result (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01](#E_Result_2) |
| outboundRelationship | 0..\* | MAY |  | [4499-34621](#C_4499-34621) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34622](#C_4499-34622) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34623](#C_4499-34623) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |
| outboundRelationship | 0..\* | MAY |  | [4499-36234](#C_4499-36234) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36236](#C_4499-36236) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36235](#C_4499-36235) | [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:4499-31251).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31252).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31253).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31254).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31255) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.62" (CONF:4499-31256).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33428).
5. SHALL contain exactly one [1..1] id (CONF:4499-31257).
6. SHALL contain exactly one [1..1] code (CONF:4499-31258).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4499-31439).
   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:4499-31440).
7. SHALL contain exactly one [1..1] title (CONF:4499-31260).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31261).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31262).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-31263) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31264).  
      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:4499-31265).  
      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:4499-31441).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31442).
11. MAY contain zero or one [0..1] methodCode (CONF:4499-31267).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-31268).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31269).
12. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-31270).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4499-31271).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31272).
13. MAY contain zero or one [0..1] participation (CONF:4499-34549) 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:4499-34552).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34550).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34553).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34551).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34554).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34555).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35364) 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:4499-35370).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36230).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35368) 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:4499-35372).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36231).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35900) 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:4499-35902).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36232).
17. MAY contain zero or one [0..1] participation (CONF:4499-35366) 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:4499-35371).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36233).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31279) 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:4499-31280).
    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:4499-33448).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33614) such that it  
    Note: QDM Attribute: Result
    1. SHALL contain exactly one [1..1] @typeCode="VALUE" Has value (CONF:4499-33615).
    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:4499-33616).
20. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34621) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34622).
    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:4499-34623).
21. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36234) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36236).
    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:4499-36235).

Figure 59: Physical Exam, Performed (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.62" extension="2021-02-01"/>

</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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01 (open)]

Table 125: Physical Exam, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 126: Physical Exam, Recommended (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-31443](#C_4499-31443) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-31444](#C_4499-31444) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-31445](#C_4499-31445) |  |
| templateId | 1..1 | SHALL |  | [4499-31446](#C_4499-31446) |  |
| item | 1..1 | SHALL |  | [4499-31447](#C_4499-31447) |  |
| @root | 1..1 | SHALL |  | [4499-31448](#C_4499-31448) | 2.16.840.1.113883.10.20.28.4.61 |
| @extension | 1..1 | SHALL |  | [4499-33449](#C_4499-33449) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31449](#C_4499-31449) |  |
| code | 1..1 | SHALL |  | [4499-31450](#C_4499-31450) |  |
| @code | 1..1 | SHALL |  | [4499-31451](#C_4499-31451) | 5880005 |
| @codeSystem | 1..1 | SHALL |  | [4499-31452](#C_4499-31452) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-31453](#C_4499-31453) |  |
| statusCode | 1..1 | SHALL |  | [4499-31454](#C_4499-31454) |  |
| @code | 1..1 | SHALL |  | [4499-31455](#C_4499-31455) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| value | 1..1 | SHALL | CD | [4499-31459](#C_4499-31459) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31460](#C_4499-31460) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-31464](#C_4499-31464) |  |
| item | 0..1 | SHOULD |  | [4499-31465](#C_4499-31465) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31466](#C_4499-31466) |  |
| participation | 0..1 | MAY |  | [4499-34458](#C_4499-34458) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34461](#C_4499-34461) | AUT |
| time | 1..1 | SHALL |  | [4499-34459](#C_4499-34459) |  |
| low | 1..1 | SHALL |  | [4499-34462](#C_4499-34462) |  |
| role | 1..1 | SHALL |  | [4499-34460](#C_4499-34460) |  |
| @classCode | 1..1 | SHALL |  | [4499-34463](#C_4499-34463) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34464](#C_4499-34464) |  |
| participation | 0..\* | MAY |  | [4499-35478](#C_4499-35478) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35482](#C_4499-35482) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36251](#C_4499-36251) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35480](#C_4499-35480) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35483](#C_4499-35483) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36252](#C_4499-36252) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35903](#C_4499-35903) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35905](#C_4499-35905) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36253](#C_4499-36253) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35484](#C_4499-35484) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35486](#C_4499-35486) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36254](#C_4499-36254) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36255](#C_4499-36255) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36257](#C_4499-36257) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36256](#C_4499-36256) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-31473](#C_4499-31473) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31474](#C_4499-31474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31475](#C_4499-31475) | [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:4499-31443).
2. SHALL contain exactly one [1..1] @moodCode="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31444).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31445).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31446).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31447) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.61" (CONF:4499-31448).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33449).
5. SHALL contain exactly one [1..1] id (CONF:4499-31449).
6. SHALL contain exactly one [1..1] code (CONF:4499-31450).
   1. This code SHALL contain exactly one [1..1] @code="5880005" Physical Examination (CONF:4499-31451).
   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:4499-31452).
7. SHALL contain exactly one [1..1] title (CONF:4499-31453).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31454).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-31455).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4499-31459).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31460).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-31464).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHOULD contain zero or one [0..1] item (CONF:4499-31465).
       1. The item, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31466).
11. MAY contain zero or one [0..1] participation (CONF:4499-34458) such that it
    1. SHALL contain exactly one [1..1] @typeCode="AUT" Author (CONF:4499-34461).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34459).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34462).  
          Note: QDM Attribute: Author dateTime (The time the recommendation is authored)
    3. SHALL contain exactly one [1..1] role (CONF:4499-34460).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34463).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34464).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35478) 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:4499-35482).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36251).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35480) 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:4499-35483).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36252).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35903) 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:4499-35905).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36253).
15. MAY contain zero or one [0..1] participation (CONF:4499-35484) 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:4499-35486).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36254).
16. MAY contain zero or more [0..\*] participation (CONF:4499-36255) 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:4499-36257).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36256).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31473) 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:4499-31474).
    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:4499-31475).

Figure 60: Physical Exam, Recommended (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.63" extension="2021-02-01"/>

</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 127: 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 128: 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 (V5)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01 (open)]

Table 129: Procedure, Order (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Rank](#E_Rank) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 130: Procedure, Order (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33158](#C_4499-33158) | PROC |
| @moodCode | 1..1 | SHALL |  | [4499-31120](#C_4499-31120) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-31121](#C_4499-31121) |  |
| templateId | 1..1 | SHALL |  | [4499-31122](#C_4499-31122) |  |
| item | 1..1 | SHALL |  | [4499-31123](#C_4499-31123) |  |
| @root | 1..1 | SHALL |  | [4499-31124](#C_4499-31124) | 2.16.840.1.113883.10.20.28.4.66 |
| @extension | 1..1 | SHALL |  | [4499-33422](#C_4499-33422) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31125](#C_4499-31125) |  |
| code | 1..1 | SHALL |  | [4499-31126](#C_4499-31126) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31127](#C_4499-31127) |  |
| title | 1..1 | SHALL |  | [4499-31128](#C_4499-31128) |  |
| statusCode | 1..1 | SHALL |  | [4499-31129](#C_4499-31129) |  |
| @code | 1..1 | SHALL |  | [4499-33147](#C_4499-33147) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active |
| priorityCode | 0..1 | MAY |  | [4499-35463](#C_4499-35463) |  |
| item | 1..1 | SHALL |  | [4499-35464](#C_4499-35464) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-35471](#C_4499-35471) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-33420](#C_4499-33420) |  |
| item | 1..1 | SHALL |  | [4499-33421](#C_4499-33421) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33424](#C_4499-33424) |  |
| participation | 0..1 | MAY |  | [4499-33506](#C_4499-33506) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33508](#C_4499-33508) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33507](#C_4499-33507) |  |
| low | 1..1 | SHALL |  | [4499-33509](#C_4499-33509) |  |
| role | 1..1 | SHALL |  | [4499-33598](#C_4499-33598) |  |
| @classCode | 1..1 | SHALL |  | [4499-33599](#C_4499-33599) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33600](#C_4499-33600) |  |
| participation | 0..\* | MAY |  | [4499-35465](#C_4499-35465) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35472](#C_4499-35472) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36244](#C_4499-36244) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35467](#C_4499-35467) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35473](#C_4499-35473) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36245](#C_4499-36245) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35906](#C_4499-35906) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35908](#C_4499-35908) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36246](#C_4499-36246) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35475](#C_4499-35475) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35477](#C_4499-35477) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36247](#C_4499-36247) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36248](#C_4499-36248) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36250](#C_4499-36250) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36249](#C_4499-36249) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-35764](#C_4499-35764) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35766](#C_4499-35766) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35765](#C_4499-35765) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |
| outboundRelationship | 0..1 | MAY |  | [4499-31143](#C_4499-31143) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33148](#C_4499-33148) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31144](#C_4499-31144) | [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:4499-33158).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31120).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31121).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31122).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31123) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.66" (CONF:4499-31124).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33422).
5. SHALL contain exactly one [1..1] id (CONF:4499-31125).
6. SHALL contain exactly one [1..1] code (CONF:4499-31126).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31127).
7. SHALL contain exactly one [1..1] title (CONF:4499-31128).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31129).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-33147).
9. MAY contain zero or one [0..1] priorityCode (CONF:4499-35463).  
   Note: QDM Attribute: Priority
   1. The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-35464).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35471).
10. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-33420).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-33421).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33424).
11. MAY contain zero or one [0..1] participation (CONF:4499-33506) 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:4499-33508).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33507).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33509).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4499-33598).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33599).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-33600).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35465) 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:4499-35472).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36244).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35467) 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:4499-35473).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36245).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35906) 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:4499-35908).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36246).
15. MAY contain zero or one [0..1] participation (CONF:4499-35475) 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:4499-35477).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36247).
16. MAY contain zero or more [0..\*] participation (CONF:4499-36248) 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:4499-36250).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36249).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-35764) such that it  
    Note: QDM Attribute: Rank
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:4499-35766).
    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:4499-35765).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31143) 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:4499-33148).
    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:4499-31144).  
       Note: QDM Attribute: Reason

Figure 62: Procedure, Order (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.66" extension="2021-02-01"/>

</templateId>

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

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

<title value="Procedure, Order"/>

<statusCode code="active"/>

</procedureCriteria>

Procedure, Performed (V5)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01 (open)]

Table 131: Procedure, Performed (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Component](#E_Component_1) (optional)  [Incision Datetime](#E_Incision_Datetime_V1) (optional)  [Related To](#E_Related_To_V1) (optional)  [Result (V2)](#E_Result_2) (optional)  [Status (V2)](#E_Status_V2) (optional)  [Rank](#E_Rank) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 132: Procedure, Performed (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33149](#C_4499-33149) | PROC |
| @moodCode | 1..1 | SHALL |  | [4499-31336](#C_4499-31336) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-31337](#C_4499-31337) |  |
| templateId | 1..1 | SHALL |  | [4499-31338](#C_4499-31338) |  |
| item | 1..1 | SHALL |  | [4499-31339](#C_4499-31339) |  |
| @root | 1..1 | SHALL |  | [4499-31340](#C_4499-31340) | 2.16.840.1.113883.10.20.28.4.67 |
| @extension | 1..1 | SHALL |  | [4499-33398](#C_4499-33398) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31341](#C_4499-31341) |  |
| code | 1..1 | SHALL |  | [4499-31342](#C_4499-31342) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31343](#C_4499-31343) |  |
| title | 1..1 | SHALL |  | [4499-31344](#C_4499-31344) |  |
| statusCode | 1..1 | SHALL |  | [4499-31345](#C_4499-31345) |  |
| @code | 1..1 | SHALL |  | [4499-33150](#C_4499-33150) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-31346](#C_4499-31346) |  |
| low | 0..1 | MAY |  | [4499-31347](#C_4499-31347) |  |
| high | 0..1 | MAY |  | [4499-31348](#C_4499-31348) |  |
| methodCode | 0..1 | MAY |  | [4499-31351](#C_4499-31351) |  |
| item | 1..1 | SHALL |  | [4499-31352](#C_4499-31352) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31353](#C_4499-31353) |  |
| targetSiteCode | 0..1 | MAY |  | [4499-33401](#C_4499-33401) |  |
| item | 1..1 | SHALL |  | [4499-33402](#C_4499-33402) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33404](#C_4499-33404) |  |
| participation | 0..1 | MAY |  | [4499-34556](#C_4499-34556) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34559](#C_4499-34559) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34557](#C_4499-34557) |  |
| low | 1..1 | SHALL |  | [4499-34560](#C_4499-34560) |  |
| role | 1..1 | SHALL |  | [4499-34558](#C_4499-34558) |  |
| @classCode | 1..1 | SHALL |  | [4499-34561](#C_4499-34561) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34562](#C_4499-34562) |  |
| participation | 0..\* | MAY |  | [4499-35448](#C_4499-35448) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35452](#C_4499-35452) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36327](#C_4499-36327) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35450](#C_4499-35450) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35453](#C_4499-35453) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36328](#C_4499-36328) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35909](#C_4499-35909) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35911](#C_4499-35911) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36329](#C_4499-36329) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35456](#C_4499-35456) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35461](#C_4499-35461) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36330](#C_4499-36330) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-31360](#C_4499-31360) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31366](#C_4499-31366) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31361](#C_4499-31361) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-31362](#C_4499-31362) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31367](#C_4499-31367) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| procedureCriteria | 1..1 | SHALL |  | [4499-33153](#C_4499-33153) | [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 |  | [4499-31364](#C_4499-31364) |  |
| @typeCode | 1..1 | SHALL |  | [4499-31368](#C_4499-31368) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = VALUE |
| observationCriteria | 1..1 | SHALL |  | [4499-31365](#C_4499-31365) | [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 |  | [4499-33408](#C_4499-33408) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33409](#C_4499-33409) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-33410](#C_4499-33410) | [Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01](#E_Status_V2) |
| outboundRelationship | 0..\* | MAY |  | [4499-34624](#C_4499-34624) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34625](#C_4499-34625) | REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34626](#C_4499-34626) | [Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.121:2017-05-01](#E_Component_1) |
| outboundRelationship | 0..1 | MAY |  | [4499-35767](#C_4499-35767) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35769](#C_4499-35769) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35768](#C_4499-35768) | [Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01](#E_Rank) |
| outboundRelationship | 0..\* | MAY |  | [4499-36331](#C_4499-36331) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36333](#C_4499-36333) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-36332](#C_4499-36332) | [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="PROC" Procedure (CONF:4499-33149).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31336).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31337).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31338) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4499-31339).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.67" (CONF:4499-31340).
      2. This item SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33398).
5. SHALL contain exactly one [1..1] id (CONF:4499-31341).
6. SHALL contain exactly one [1..1] code (CONF:4499-31342).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31343).
7. SHALL contain exactly one [1..1] title (CONF:4499-31344).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31345).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-33150).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-31346) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-31347).  
      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:4499-31348).  
      Note: stopTime of Relevant Period (The time the procedure is completed)
10. MAY contain zero or one [0..1] methodCode (CONF:4499-31351).  
    Note: QDM Attribute: Method
    1. The methodCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-31352).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31353).
11. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-33401).  
    Note: QDM Attribute: Anatomical Location Site
    1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-33402).
       1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33404).
12. MAY contain zero or one [0..1] participation (CONF:4499-34556) 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:4499-34559).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34557).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34560).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34558).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34561).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34562).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35448) 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:4499-35452).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36327).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35450) 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:4499-35453).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36328).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35909) 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:4499-35911).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36329).
16. MAY contain zero or one [0..1] participation (CONF:4499-35456) 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:4499-35461).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36330).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31360) 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:4499-31366).
    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:4499-31361).
18. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31362) 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:4499-31367).
    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:4499-33153).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31364) 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:4499-31368).
    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:4499-31365).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-33408) such that it  
    Note: QDM Attribute: Status
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CONF:4499-33409).
    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:4499-33410).
21. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-34624) such that it  
    Note: QDM Attribute: Components
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CONF:4499-34625).
    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:4499-34626).
22. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-35767) 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:4499-35769).
    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:4499-35768).
23. MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36331) 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:4499-36333).
    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:4499-36332).

Figure 63: Procedure, Performed (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.67" extension="2021-02-01"/>

</templateId>

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

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

<title value="Procedure, Performed"/>

<statusCode code="completed"/>

</procedureCriteria>

Procedure, Recommended (V4)

[ProcedureCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01 (open)]

Table 133: Procedure, Recommended (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Rank](#E_Rank) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 134: Procedure, Recommended (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ProcedureCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-33154](#C_4499-33154) | PROC |
| @moodCode | 1..1 | SHALL |  | [4499-31209](#C_4499-31209) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-31210](#C_4499-31210) |  |
| templateId | 1..1 | SHALL |  | [4499-31211](#C_4499-31211) |  |
| item | 1..1 | SHALL |  | [4499-31212](#C_4499-31212) |  |
| @root | 1..1 | SHALL |  | [4499-31213](#C_4499-31213) | 2.16.840.1.113883.10.20.28.4.68 |
| @extension | 1..1 | SHALL |  | [4499-33417](#C_4499-33417) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-31214](#C_4499-31214) |  |
| code | 1..1 | SHALL |  | [4499-31215](#C_4499-31215) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-31216](#C_4499-31216) |  |
| title | 1..1 | SHALL |  | [4499-31217](#C_4499-31217) |  |
| statusCode | 1..1 | SHALL |  | [4499-31218](#C_4499-31218) |  |
| @code | 1..1 | SHALL |  | [4499-33155](#C_4499-33155) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active |
| targetSiteCode | 0..1 | MAY |  | [4499-33413](#C_4499-33413) |  |
| item | 1..1 | SHALL |  | [4499-33414](#C_4499-33414) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33416](#C_4499-33416) |  |
| participation | 0..1 | MAY |  | [4499-34465](#C_4499-34465) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34468](#C_4499-34468) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34466](#C_4499-34466) |  |
| low | 1..1 | SHALL |  | [4499-34469](#C_4499-34469) |  |
| role | 1..1 | SHALL |  | [4499-34467](#C_4499-34467) |  |
| @classCode | 1..1 | SHALL |  | [4499-34470](#C_4499-34470) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34471](#C_4499-34471) |  |
| participation | 0..\* | MAY |  | [4499-35425](#C_4499-35425) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35429](#C_4499-35429) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36237](#C_4499-36237) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35427](#C_4499-35427) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35430](#C_4499-35430) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36238](#C_4499-36238) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35912](#C_4499-35912) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35914](#C_4499-35914) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36239](#C_4499-36239) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35431](#C_4499-35431) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35433](#C_4499-35433) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36240](#C_4499-36240) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36241](#C_4499-36241) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36243](#C_4499-36243) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36242](#C_4499-36242) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-31233](#C_4499-31233) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33157](#C_4499-33157) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-31234](#C_4499-31234) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-35770](#C_4499-35770) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35772](#C_4499-35772) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-35771](#C_4499-35771) | [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:4499-33154).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-31209).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-31210).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-31211).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-31212) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.68" (CONF:4499-31213).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33417).
5. SHALL contain exactly one [1..1] id (CONF:4499-31214).
6. SHALL contain exactly one [1..1] code (CONF:4499-31215).  
   Note: QDM Attribute: Code
   1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-31216).
7. SHALL contain exactly one [1..1] title (CONF:4499-31217).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-31218).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-33155).
9. MAY contain zero or one [0..1] targetSiteCode (CONF:4499-33413).  
   Note: QDM Attribute: Anatomical Location Site
   1. The targetSiteCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-33414).
      1. This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33416).
10. MAY contain zero or one [0..1] participation (CONF:4499-34465) 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:4499-34468).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34466).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34469).  
          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:4499-34467).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34470).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34471).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35425) 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:4499-35429).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36237).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35427) 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:4499-35430).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36238).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35912) 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:4499-35914).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36239).
14. MAY contain zero or one [0..1] participation (CONF:4499-35431) 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:4499-35433).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36240).
15. MAY contain zero or more [0..\*] participation (CONF:4499-36241) 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:4499-36243).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36242).
16. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-31233) 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:4499-33157).
    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:4499-31234).
17. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-35770) 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:4499-35772).
    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:4499-35771).

Figure 64: Procedure, Recommended (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.68" extension="2021-02-01"/>

</templateId>

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

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

<title value="Procedure, Recommended"/>

<statusCode code="completed"/>

</procedureCriteria>

Program Participation (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01 (open)]

Table 135: Program Participation (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 136: Program Participation (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34829](#C_4499-34829) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34830](#C_4499-34830) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-34831](#C_4499-34831) |  |
| templateId | 1..1 | SHALL |  | [4499-34819](#C_4499-34819) |  |
| item | 1..1 | SHALL |  | [4499-34820](#C_4499-34820) |  |
| @root | 1..1 | SHALL |  | [4499-34824](#C_4499-34824) | 2.16.840.1.113883.10.20.28.4.130 |
| @extension | 1..1 | SHALL |  | [4499-34825](#C_4499-34825) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34832](#C_4499-34832) |  |
| code | 1..1 | SHALL |  | [4499-34821](#C_4499-34821) |  |
| @code | 1..1 | SHALL |  | [4499-34834](#C_4499-34834) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ASSERTION |
| title | 1..1 | SHALL |  | [4499-34881](#C_4499-34881) |  |
| statusCode | 1..1 | SHALL |  | [4499-34822](#C_4499-34822) |  |
| @code | 1..1 | SHALL |  | [4499-34827](#C_4499-34827) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34823](#C_4499-34823) |  |
| low | 0..1 | MAY |  | [4499-34828](#C_4499-34828) |  |
| high | 0..1 | MAY |  | [4499-34835](#C_4499-34835) |  |
| value | 1..1 | SHALL | CD | [4499-34833](#C_4499-34833) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34836](#C_4499-34836) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-34829).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34830).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-34831).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-34819).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-34820) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.130" (CONF:4499-34824).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34825).
5. SHALL contain exactly one [1..1] id (CONF:4499-34832).
6. SHALL contain exactly one [1..1] code (CONF:4499-34821).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4499-34834).
7. SHALL contain exactly one [1..1] title (CONF:4499-34881).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-34822).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34827).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34823) such that it  
   Note: QDM Attribute: Participation Period
   1. MAY contain zero or one [0..1] low (CONF:4499-34828).  
      Note: enrollmentStartdate – The time the patient enrolled in the program
   2. MAY contain zero or one [0..1] high (CONF:4499-34835).  
      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:4499-34833).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34836).

Figure 65: Program Participation (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.130" extension="2021-02-01"/>

</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 (V3)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01 (open)]

Table 137: Provider Care Experience (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 138: Provider Care Experience (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32218](#C_4499-32218) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-32219](#C_4499-32219) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..0 | SHALL NOT |  | [4499-35354](#C_4499-35354) |  |
| templateId | 1..1 | SHALL |  | [4499-32220](#C_4499-32220) |  |
| item | 1..1 | SHALL |  | [4499-32221](#C_4499-32221) |  |
| @root | 1..1 | SHALL |  | [4499-32222](#C_4499-32222) | 2.16.840.1.113883.10.20.28.4.70 |
| @extension | 1..1 | SHALL |  | [4499-33701](#C_4499-33701) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32223](#C_4499-32223) |  |
| code | 1..1 | SHALL |  | [4499-32224](#C_4499-32224) |  |
| @code | 1..1 | SHALL |  | [4499-32225](#C_4499-32225) | 405193005 |
| @codeSystem | 1..1 | SHALL |  | [4499-32226](#C_4499-32226) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-32227](#C_4499-32227) |  |
| statusCode | 1..1 | SHALL |  | [4499-32228](#C_4499-32228) |  |
| @code | 1..1 | SHALL |  | [4499-32229](#C_4499-32229) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34390](#C_4499-34390) |  |
| low | 1..1 | SHALL |  | [4499-34391](#C_4499-34391) |  |
| value | 1..1 | SHALL | CD | [4499-32230](#C_4499-32230) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32231](#C_4499-32231) |  |
| participation | 0..\* | MAY |  | [4499-35355](#C_4499-35355) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35361](#C_4499-35361) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36334](#C_4499-36334) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35357](#C_4499-35357) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35362](#C_4499-35362) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36335](#C_4499-36335) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35915](#C_4499-35915) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35916](#C_4499-35916) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36336](#C_4499-36336) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35359](#C_4499-35359) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35363](#C_4499-35363) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36337](#C_4499-36337) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CONF:4499-32218).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32219).
3. SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-35354).
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32220).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32221) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.70" (CONF:4499-32222).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33701).
5. SHALL contain exactly one [1..1] id (CONF:4499-32223).
6. SHALL contain exactly one [1..1] code (CONF:4499-32224).
   1. This code SHALL contain exactly one [1..1] @code="405193005" Caregiver Satisfaction (CONF:4499-32225).
   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:4499-32226).
7. SHALL contain exactly one [1..1] title (CONF:4499-32227).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32228).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32229).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34390) such that it
   1. SHALL contain exactly one [1..1] low (CONF:4499-34391).  
      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:4499-32230).  
    Note: QDM Attribute: Code
    1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32231).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35355).  
    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:4499-35361).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36334).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35357).  
    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:4499-35362).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36335).
13. MAY contain zero or more [0..\*] participation (CONF:4499-35915).  
    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:4499-35916).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36336).
14. MAY contain zero or one [0..1] participation (CONF:4499-35359).  
    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:4499-35363).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36337).

Figure 66: Provider Care Experience (V3) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.70" extension="2021-02-01"/>

</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 139: Rank Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter Diagnosis](#E_Encounter_Diagnosis_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (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 140: 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 141: Reason Contexts

| Contained By: | Contains: |
| --- | --- |
| [Patient Characteristic Clinical Trial Participant](#E_Patient_Charac_Clinical_Trial_1) (optional)  [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Assessment, Order (V4)](#E_Assessment_Order_V4) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (required)  [Device, Applied (RETIRED)](#E_Device_Applied_RETIRED) (optional)  [Device, Order (V3)](#E_Device_Order_V3_) (optional)  [Device, Recommended (V3)](#E_Device_Recommended_V3_) (optional)  [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Encounter, Order (V3)](#E_Encounter_Order_V3_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) (optional)  [Immunization, Administered (V5)](#E_Immunization_Administered_V5) (optional)  [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Intervention, Order (V3)](#E_Intervention_Order_V3_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) (optional)  [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) (optional)  [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) (optional)  [Medication, Administered (V5)](#E_Medication_Administered_V5_) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) (optional)  [Procedure, Order (V5)](#E_Procedure_Order_V5_) (optional)  [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (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 142: 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 143: Related Person Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (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 144: 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 145: Related To Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Assessment, Performed (V4)](#E_Assessment_Performed_V4) (optional)  [Care Goal (V4)](#E_Care_Goal_V4_) (optional)  [Communication, Performed (V3)](#E_Communication_Performed_V3) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (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 146: 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 147: Result (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (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 148: 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 149: Severity Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Adverse Event (V4)](#E_Adverse_Event_V4) (optional)  [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) (optional)  [Diagnosis (V4)](#E_Diagnosis_V4) (optional)  [Symptom (V4)](#E_Symptom_V4) (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 150: 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 151: Status (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) (optional)  [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) (optional)  [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) (optional)  [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) (optional) |  |

This template represents the QDM attribute: Status.

Status represents the particular stage of the subject within a defined process.

Table 152: 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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01 (open)]

Table 153: Substance, Administered (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 154: Substance, Administered (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32878](#C_4499-32878) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-32879](#C_4499-32879) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @actionNegationInd | 0..1 | MAY |  | [4499-32880](#C_4499-32880) |  |
| templateId | 1..1 | SHALL |  | [4499-32881](#C_4499-32881) |  |
| item | 1..1 | SHALL |  | [4499-32882](#C_4499-32882) |  |
| @root | 1..1 | SHALL |  | [4499-32883](#C_4499-32883) | 2.16.840.1.113883.10.20.28.4.73 |
| @extension | 1..1 | SHALL |  | [4499-33393](#C_4499-33393) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32884](#C_4499-32884) |  |
| code | 1..1 | SHALL |  | [4499-32885](#C_4499-32885) |  |
| @code | 1..1 | SHALL |  | [4499-33177](#C_4499-33177) | 416118004 |
| @codeSystem | 1..1 | SHALL |  | [4499-33178](#C_4499-33178) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-32887](#C_4499-32887) |  |
| statusCode | 1..1 | SHALL |  | [4499-32888](#C_4499-32888) |  |
| @code | 1..1 | SHALL |  | [4499-32889](#C_4499-32889) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-32890](#C_4499-32890) |  |
| low | 0..1 | MAY |  | [4499-32891](#C_4499-32891) |  |
| high | 0..1 | MAY |  | [4499-32892](#C_4499-32892) |  |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-34845](#C_4499-34845) |  |
| period | 0..1 | MAY |  | [4499-34846](#C_4499-34846) |  |
| routeCode | 0..1 | MAY |  | [4499-32894](#C_4499-32894) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32895](#C_4499-32895) |  |
| doseQuantity | 0..1 | MAY |  | [4499-32896](#C_4499-32896) |  |
| participation | 1..1 | SHALL |  | [4499-32897](#C_4499-32897) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32898](#C_4499-32898) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32899](#C_4499-32899) |  |
| @classCode | 1..1 | SHALL |  | [4499-32900](#C_4499-32900) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4499-32901](#C_4499-32901) |  |
| @classCode | 1..1 | SHALL |  | [4499-32902](#C_4499-32902) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32903](#C_4499-32903) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32904](#C_4499-32904) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32905](#C_4499-32905) |  |
| participation | 0..1 | MAY |  | [4499-34563](#C_4499-34563) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34566](#C_4499-34566) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34564](#C_4499-34564) |  |
| low | 1..1 | SHALL |  | [4499-34567](#C_4499-34567) |  |
| role | 1..1 | SHALL |  | [4499-34565](#C_4499-34565) |  |
| @classCode | 1..1 | SHALL |  | [4499-34568](#C_4499-34568) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-34569](#C_4499-34569) |  |
| participation | 0..\* | MAY |  | [4499-35407](#C_4499-35407) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35411](#C_4499-35411) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36262](#C_4499-36262) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35409](#C_4499-35409) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35412](#C_4499-35412) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36263](#C_4499-36263) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35933](#C_4499-35933) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35935](#C_4499-35935) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36264](#C_4499-36264) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35413](#C_4499-35413) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35415](#C_4499-35415) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36265](#C_4499-36265) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |

1. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CONF:4499-32878).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32879).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-32880).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32881).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32882) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.73" (CONF:4499-32883).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33393).
5. SHALL contain exactly one [1..1] id (CONF:4499-32884).
6. SHALL contain exactly one [1..1] code (CONF:4499-32885).
   1. This code SHALL contain exactly one [1..1] @code="416118004" Administration (CONF:4499-33177).
   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:4499-33178).
7. SHALL contain exactly one [1..1] title (CONF:4499-32887).
8. SHALL contain exactly one [1..1] statusCode (CONF:4499-32888).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32889).
9. MAY contain zero or one [0..1] effectiveTime (CONF:4499-32890) such that it  
   Note: QDM Attribute: Relevant Period
   1. MAY contain zero or one [0..1] low (CONF:4499-32891).  
      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:4499-32892).  
      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:4499-34845) such that it  
    Note: QDM Attribute: Frequency
    1. MAY contain zero or one [0..1] period (CONF:4499-34846).
11. MAY contain zero or one [0..1] routeCode (CONF:4499-32894).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32895).
12. MAY contain zero or one [0..1] doseQuantity (CONF:4499-32896).  
    Note: QDM Attribute: Dosage
13. SHALL contain exactly one [1..1] participation (CONF:4499-32897) 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:4499-32898).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32899).
       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:4499-32900).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4499-32901).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-32902).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-32903).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4499-32904).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32905).
14. MAY contain zero or one [0..1] participation (CONF:4499-34563) 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:4499-34566).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34564).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34567).  
          Note: QDM Attribute: Author dateTime
    3. SHALL contain exactly one [1..1] role (CONF:4499-34565).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34568).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-34569).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35407) 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:4499-35411).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36262).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35409) 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:4499-35412).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36263).
17. MAY contain zero or more [0..\*] participation (CONF:4499-35933) 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:4499-35935).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36264).
18. MAY contain zero or one [0..1] participation (CONF:4499-35413) 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:4499-35415).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36265).

Figure 74: Substance, Administered (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.73" extension="2021-02-01"/>

</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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01 (open)]

Table 155: Substance, Order (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 156: Substance, Order (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32623](#C_4499-32623) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-32624](#C_4499-32624) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO |
| @actionNegationInd | 0..1 | MAY |  | [4499-32625](#C_4499-32625) |  |
| templateId | 1..1 | SHALL |  | [4499-32626](#C_4499-32626) |  |
| item | 1..1 | SHALL |  | [4499-32627](#C_4499-32627) |  |
| @root | 1..1 | SHALL |  | [4499-32628](#C_4499-32628) | 2.16.840.1.113883.10.20.28.4.77 |
| @extension | 1..1 | SHALL |  | [4499-33652](#C_4499-33652) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32629](#C_4499-32629) |  |
| title | 1..1 | SHALL |  | [4499-32632](#C_4499-32632) |  |
| statusCode | 1..1 | SHALL |  | [4499-32633](#C_4499-32633) |  |
| @code | 1..1 | SHALL |  | [4499-32634](#C_4499-32634) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-35566](#C_4499-35566) |  |
| period | 0..1 | MAY |  | [4499-35567](#C_4499-35567) |  |
| repeatNumber | 0..1 | MAY |  | [4499-32638](#C_4499-32638) |  |
| routeCode | 0..1 | MAY |  | [4499-32639](#C_4499-32639) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32640](#C_4499-32640) |  |
| doseQuantity | 0..1 | MAY |  | [4499-32641](#C_4499-32641) |  |
| participation | 1..1 | SHALL |  | [4499-32642](#C_4499-32642) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32643](#C_4499-32643) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32644](#C_4499-32644) |  |
| @classCode | 1..1 | SHALL |  | [4499-32645](#C_4499-32645) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4499-32646](#C_4499-32646) |  |
| @classCode | 1..1 | SHALL |  | [4499-32647](#C_4499-32647) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32648](#C_4499-32648) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32649](#C_4499-32649) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32650](#C_4499-32650) |  |
| participation | 0..1 | MAY |  | [4499-33511](#C_4499-33511) |  |
| @typeCode | 1..1 | SHALL |  | [4499-33513](#C_4499-33513) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-33512](#C_4499-33512) |  |
| low | 1..1 | SHALL |  | [4499-33514](#C_4499-33514) |  |
| role | 1..1 | SHALL |  | [4499-33601](#C_4499-33601) |  |
| @classCode | 1..1 | SHALL |  | [4499-33602](#C_4499-33602) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| id | 0..1 | MAY |  | [4499-33603](#C_4499-33603) |  |
| participation | 0..\* | MAY |  | [4499-35400](#C_4499-35400) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35404](#C_4499-35404) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36266](#C_4499-36266) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35927](#C_4499-35927) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35931](#C_4499-35931) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36267](#C_4499-36267) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..1 | MAY |  | [4499-35929](#C_4499-35929) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35932](#C_4499-35932) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36268](#C_4499-36268) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35402](#C_4499-35402) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35405](#C_4499-35405) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36269](#C_4499-36269) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36270](#C_4499-36270) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36272](#C_4499-36272) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36271](#C_4499-36271) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-32651](#C_4499-32651) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32652](#C_4499-32652) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-32653](#C_4499-32653) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34485](#C_4499-34485) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34486](#C_4499-34486) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34848](#C_4499-34848) | [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:4499-32623).
2. SHALL contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32624).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-32625).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32626).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32627) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.77" (CONF:4499-32628).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33652).
5. SHALL contain exactly one [1..1] id (CONF:4499-32629).
6. SHALL contain exactly one [1..1] title (CONF:4499-32632).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-32633).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32634).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-35566) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-35567).
9. MAY contain zero or one [0..1] repeatNumber (CONF:4499-32638).  
   Note: QDM Attribute: Refills
10. MAY contain zero or one [0..1] routeCode (CONF:4499-32639).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32640).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4499-32641).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4499-32642) 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:4499-32643).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32644).
       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:4499-32645).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4499-32646).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-32647).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-32648).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4499-32649).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32650).
13. MAY contain zero or one [0..1] participation (CONF:4499-33511) 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:4499-33513).
    2. SHALL contain exactly one [1..1] time (CONF:4499-33512).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-33514).  
          Note: QDM Attribute: Author dateTime (The time the order is signed)
    3. SHALL contain exactly one [1..1] role (CONF:4499-33601).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-33602).
       2. This role MAY contain zero or one [0..1] id (CONF:4499-33603).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35400) 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:4499-35404).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36266).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35927) 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:4499-35931).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36267).
16. MAY contain zero or one [0..1] participation (CONF:4499-35929) 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:4499-35932).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36268).
17. MAY contain zero or one [0..1] participation (CONF:4499-35402) 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:4499-35405).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36269).
18. MAY contain zero or more [0..\*] participation (CONF:4499-36270) 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:4499-36272).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36271).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-32651) 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:4499-32652).
    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:4499-32653).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34485) 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:4499-34486).
    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:4499-34848).

Figure 75: Substance, Order (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.77" extension="2021-02-01"/>

</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 (V5)

[substanceAdministrationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01 (open)]

Table 157: Substance, Recommended (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Reason](#E_Reason_V1) (optional)  [Supply](#E_Supply) (optional)  [Entity - Location](#E_Entity_Location) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 158: Substance, Recommended (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministrationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-32063](#C_4499-32063) | SBADM |
| @moodCode | 1..1 | SHALL |  | [4499-32064](#C_4499-32064) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| @actionNegationInd | 0..1 | MAY |  | [4499-32065](#C_4499-32065) |  |
| templateId | 1..1 | SHALL |  | [4499-32066](#C_4499-32066) |  |
| item | 1..1 | SHALL |  | [4499-32125](#C_4499-32125) |  |
| @root | 1..1 | SHALL |  | [4499-32126](#C_4499-32126) | 2.16.840.1.113883.10.20.28.4.78 |
| @extension | 1..1 | SHALL |  | [4499-33693](#C_4499-33693) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-32067](#C_4499-32067) |  |
| title | 1..1 | SHALL |  | [4499-32069](#C_4499-32069) |  |
| statusCode | 1..1 | SHALL |  | [4499-32070](#C_4499-32070) |  |
| @code | 1..1 | SHALL |  | [4499-32071](#C_4499-32071) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | MAY | PIVL\_TS | [4499-35568](#C_4499-35568) |  |
| period | 0..1 | MAY |  | [4499-35569](#C_4499-35569) |  |
| repeatNumber | 0..1 | MAY |  | [4499-32121](#C_4499-32121) |  |
| routeCode | 0..1 | MAY |  | [4499-32123](#C_4499-32123) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-33200](#C_4499-33200) |  |
| doseQuantity | 0..1 | MAY |  | [4499-32124](#C_4499-32124) |  |
| participation | 1..1 | SHALL |  | [4499-32103](#C_4499-32103) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32104](#C_4499-32104) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| role | 1..1 | SHALL |  | [4499-32105](#C_4499-32105) |  |
| @classCode | 1..1 | SHALL |  | [4499-32106](#C_4499-32106) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ADMM |
| playingMaterial | 1..1 | SHALL |  | [4499-32107](#C_4499-32107) |  |
| @classCode | 1..1 | SHALL |  | [4499-32108](#C_4499-32108) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MAT |
| @determinerCode | 1..1 | SHALL |  | [4499-32109](#C_4499-32109) | urn:oid:2.16.840.1.113883.5.30 (HL7EntityDeterminer) = KIND |
| code | 1..1 | SHALL |  | [4499-32110](#C_4499-32110) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-32111](#C_4499-32111) |  |
| participation | 0..1 | MAY |  | [4499-34473](#C_4499-34473) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34476](#C_4499-34476) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT |
| time | 1..1 | SHALL |  | [4499-34474](#C_4499-34474) |  |
| low | 1..1 | SHALL |  | [4499-34477](#C_4499-34477) |  |
| role | 1..1 | SHALL |  | [4499-34475](#C_4499-34475) |  |
| @classCode | 1..1 | SHALL |  | [4499-34478](#C_4499-34478) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = ROL |
| participation | 0..\* | MAY |  | [4499-35391](#C_4499-35391) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35395](#C_4499-35395) | PART |
| role | 1..1 | SHALL |  | [4499-36273](#C_4499-36273) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35393](#C_4499-35393) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35396](#C_4499-35396) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36274](#C_4499-36274) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35924](#C_4499-35924) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35926](#C_4499-35926) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36275](#C_4499-36275) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35397](#C_4499-35397) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35399](#C_4499-35399) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36276](#C_4499-36276) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| participation | 0..\* | MAY |  | [4499-36277](#C_4499-36277) |  |
| @typeCode | 1..1 | SHALL |  | [4499-36279](#C_4499-36279) | PART |
| role | 1..1 | SHALL |  | [4499-36278](#C_4499-36278) | [Entity - Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01](#E_Entity_Location) |
| outboundRelationship | 0..1 | MAY |  | [4499-32112](#C_4499-32112) |  |
| @typeCode | 1..1 | SHALL |  | [4499-32113](#C_4499-32113) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observationCriteria | 1..1 | SHALL |  | [4499-32114](#C_4499-32114) | [Reason (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01](#E_Reason_V1) |
| outboundRelationship | 0..1 | MAY |  | [4499-34488](#C_4499-34488) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34489](#C_4499-34489) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supplyCriteria | 1..1 | SHALL |  | [4499-34849](#C_4499-34849) | [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:4499-32063).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-32064).
3. MAY contain zero or one [0..1] @actionNegationInd (CONF:4499-32065).  
   Note: QDM Attribute: Negation Rationale
4. SHALL contain exactly one [1..1] templateId (CONF:4499-32066).
   1. This templateId SHALL contain exactly one [1..1] item (CONF:4499-32125) such that it
      1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.78" (CONF:4499-32126).
      2. SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33693).
5. SHALL contain exactly one [1..1] id (CONF:4499-32067).
6. SHALL contain exactly one [1..1] title (CONF:4499-32069).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-32070).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-32071).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-35568) such that it  
   Note: QDM Attribute: Frequency
   1. MAY contain zero or one [0..1] period (CONF:4499-35569).
9. MAY contain zero or one [0..1] repeatNumber (CONF:4499-32121).  
   Note: QDM Attribute: Refills
10. MAY contain zero or one [0..1] routeCode (CONF:4499-32123).  
    Note: QDM Attribute: Route
    1. The routeCode, if present, SHOULD contain zero or one [0..1] @valueSet (CONF:4499-33200).
11. MAY contain zero or one [0..1] doseQuantity (CONF:4499-32124).  
    Note: QDM Attribute: Dosage
12. SHALL contain exactly one [1..1] participation (CONF:4499-32103) 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:4499-32104).
    2. SHALL contain exactly one [1..1] role (CONF:4499-32105).
       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:4499-32106).
       2. This role SHALL contain exactly one [1..1] playingMaterial (CONF:4499-32107).
          1. This playingMaterial SHALL contain exactly one [1..1] @classCode="MAT" Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-32108).
          2. This playingMaterial SHALL contain exactly one [1..1] @determinerCode="KIND" Kind (CodeSystem: HL7EntityDeterminer urn:oid:2.16.840.1.113883.5.30) (CONF:4499-32109).
          3. This playingMaterial SHALL contain exactly one [1..1] code (CONF:4499-32110).  
             Note: QDM Attribute: Code
             1. This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-32111).
13. MAY contain zero or one [0..1] participation (CONF:4499-34473) 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:4499-34476).
    2. SHALL contain exactly one [1..1] time (CONF:4499-34474).
       1. This time SHALL contain exactly one [1..1] low (CONF:4499-34477).  
          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:4499-34475).
       1. This role SHALL contain exactly one [1..1] @classCode="ROL" Role (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4499-34478).
14. MAY contain zero or more [0..\*] participation (CONF:4499-35391) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-35395).
    2. SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36273).
15. MAY contain zero or more [0..\*] participation (CONF:4499-35393) 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:4499-35396).
    2. SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36274).
16. MAY contain zero or more [0..\*] participation (CONF:4499-35924) 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:4499-35926).
    2. SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36275).
17. MAY contain zero or one [0..1] participation (CONF:4499-35397) 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:4499-35399).
    2. SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36276).
18. MAY contain zero or more [0..\*] participation (CONF:4499-36277) such that it  
    Note: QDM Attribute: Requester
    1. SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-36279).
    2. SHALL contain exactly one [1..1] [Entity - Location](#E_Entity_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01) (CONF:4499-36278).
19. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-32112) 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:4499-32113).
    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:4499-32114).
20. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34488) 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:4499-34489).
    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:4499-34849).

Figure 76: Substance, Recommended (V5) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.78" extension="2021-02-01"/>

</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 159: Supply Contexts

| Contained By: | Contains: |
| --- | --- |
| [Immunization, Order (V4)](#E_Immunization_Order_V4) (optional)  [Medication, Discharge (V4)](#E_Medication_Discharge_V4) (optional)  [Medication, Order (V5)](#E_Medication_Order_V5_) (optional)  [Substance, Order (V5)](#E_Substance_Order_V5) (optional)  [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) (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 160: 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 (V4)

[observationCriteria: identifier urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01 (open)]

Table 161: Symptom (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) (optional) | [Severity Observation (V2)](#E_Severity_Observation_2) (optional)  [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (optional)  [Entity - Patient (V2)](#E_Entity_Patient_V2) (optional)  [Entity - Organization (V2)](#E_Entity_Organization_V2) (optional)  [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (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 162: Symptom (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observationCriteria (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4499-34108](#C_4499-34108) | OBS |
| @moodCode | 1..1 | SHALL |  | [4499-34109](#C_4499-34109) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4499-34079](#C_4499-34079) |  |
| item | 1..1 | SHALL |  | [4499-34080](#C_4499-34080) |  |
| @root | 1..1 | SHALL |  | [4499-34093](#C_4499-34093) | 2.16.840.1.113883.10.20.28.4.116 |
| @extension | 1..1 | SHALL |  | [4499-34480](#C_4499-34480) | 2021-02-01 |
| id | 1..1 | SHALL |  | [4499-34112](#C_4499-34112) |  |
| code | 1..1 | SHALL |  | [4499-34081](#C_4499-34081) |  |
| @code | 1..1 | SHALL |  | [4499-34095](#C_4499-34095) | 418799008 |
| @codeSystem | 1..1 | SHALL |  | [4499-34096](#C_4499-34096) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| title | 1..1 | SHALL |  | [4499-34111](#C_4499-34111) |  |
| statusCode | 1..1 | SHALL |  | [4499-34082](#C_4499-34082) |  |
| @code | 1..1 | SHALL |  | [4499-34097](#C_4499-34097) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | MAY | IVL\_TS | [4499-34083](#C_4499-34083) |  |
| low | 0..1 | MAY |  | [4499-34098](#C_4499-34098) |  |
| high | 0..1 | MAY |  | [4499-34099](#C_4499-34099) |  |
| value | 1..1 | SHALL | CD | [4499-34088](#C_4499-34088) |  |
| @valueSet | 0..1 | SHOULD |  | [4499-34105](#C_4499-34105) |  |
| participation | 0..\* | MAY |  | [4499-35382](#C_4499-35382) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35386](#C_4499-35386) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36280](#C_4499-36280) | [Entity - Practitioner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01](#E_Entity_Practitioner_V2) |
| participation | 0..\* | MAY |  | [4499-35384](#C_4499-35384) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35387](#C_4499-35387) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36281](#C_4499-36281) | [Entity - Organization (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01](#E_Entity_Organization_V2) |
| participation | 0..\* | MAY |  | [4499-35921](#C_4499-35921) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35923](#C_4499-35923) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| role | 1..1 | SHALL |  | [4499-36282](#C_4499-36282) | [Entity - Care Partner (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01](#E_Entity_Care_Partner_V2) |
| participation | 0..1 | MAY |  | [4499-35388](#C_4499-35388) |  |
| @typeCode | 1..1 | SHALL |  | [4499-35390](#C_4499-35390) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PART |
| patient | 1..1 | SHALL |  | [4499-36283](#C_4499-36283) | [Entity - Patient (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01](#E_Entity_Patient_V2) |
| outboundRelationship | 0..1 | MAY |  | [4499-34078](#C_4499-34078) |  |
| @typeCode | 1..1 | SHALL |  | [4499-34092](#C_4499-34092) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observationCriteria | 1..1 | SHALL |  | [4499-34091](#C_4499-34091) | [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:4499-34108).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4499-34109).
3. SHALL contain exactly one [1..1] templateId (CONF:4499-34079) such that it
   1. SHALL contain exactly one [1..1] item (CONF:4499-34080).
      1. This item SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.28.4.116" (CONF:4499-34093).
      2. This item SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34480).
4. SHALL contain exactly one [1..1] id (CONF:4499-34112).
5. SHALL contain exactly one [1..1] code (CONF:4499-34081).
   1. This code SHALL contain exactly one [1..1] @code="418799008" Symptom (CONF:4499-34095).
   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:4499-34096).
6. SHALL contain exactly one [1..1] title (CONF:4499-34111).
7. SHALL contain exactly one [1..1] statusCode (CONF:4499-34082).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4499-34097).
8. MAY contain zero or one [0..1] effectiveTime (CONF:4499-34083) 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:4499-34098).  
      Note: Onset dateTime
   2. MAY contain zero or one [0..1] high (CONF:4499-34099).  
      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:4499-34088).  
   Note: QDM Attribute: Code
   1. This value SHOULD contain zero or one [0..1] @valueSet (CONF:4499-34105).
10. MAY contain zero or more [0..\*] participation (CONF:4499-35382).  
    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:4499-35386).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01) (CONF:4499-36280).
11. MAY contain zero or more [0..\*] participation (CONF:4499-35384).  
    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:4499-35387).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Organization (V2)](#E_Entity_Organization_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01) (CONF:4499-36281).
12. MAY contain zero or more [0..\*] participation (CONF:4499-35921).  
    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:4499-35923).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01) (CONF:4499-36282).
13. MAY contain zero or one [0..1] participation (CONF:4499-35388).  
    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:4499-35390).
    2. The participation, if present, SHALL contain exactly one [1..1] [Entity - Patient (V2)](#E_Entity_Patient_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01) (CONF:4499-36283).
14. MAY contain zero or one [0..1] outboundRelationship (CONF:4499-34078) 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:4499-34092).
    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:4499-34091).

Figure 78: Symptom (V4) Example

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

<templateId>

<item root="2.16.840.1.113883.10.20.28.4.116" extension="2021-02-01"/>

</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 163: Target Outcome Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Goal (V4)](#E_Care_Goal_V4_) (optional) |  |

This template represents the QDM attribute: Target Outcome.  
The expected outcome that will indicate the care goal is achieved, or met.

Table 164: 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 165: Template List

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) | Document | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01 |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01 |
| [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 (V4)](#E_Adverse_Event_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01 |
| [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01 |
| [Assessment, Order (V4)](#E_Assessment_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01 |
| [Assessment, Performed (V4)](#E_Assessment_Performed_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01 |
| [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01 |
| [Care Goal (V4)](#E_Care_Goal_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01 |
| [Cause](#E_Cause) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.105:2017-05-01 |
| [Communication, Performed (V3)](#E_Communication_Performed_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01 |
| [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 (RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2021-02-01 |
| [Device, Order (V3)](#E_Device_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01 |
| [Device, Recommended (V3)](#E_Device_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01 |
| [Diagnosis (V4)](#E_Diagnosis_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01 |
| [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01 |
| [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01 |
| [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01 |
| [Dosage](#E_Dosage) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.125:2017-05-01 |
| [Encounter Class](#E_Encounter_Class) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01 |
| [Encounter Diagnosis](#E_Encounter_Diagnosis_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.138:2019-05-01 |
| [Encounter, Order (V3)](#E_Encounter_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01 |
| [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01 |
| [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Facility Location](#E_Facility_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.92:2017-05-01 |
| [Family History (V3)](#E_Family_History_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01 |
| [Immunization, Administered (V5)](#E_Immunization_Administered_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01 |
| [Immunization, Order (V4)](#E_Immunization_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01 |
| [Incision Datetime](#E_Incision_Datetime_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.89:2017-05-01 |
| [Intervention, Order (V3)](#E_Intervention_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01 |
| [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01 |
| [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01 |
| [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 (V4)](#E_Laboratory_Test_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01 |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01 |
| [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01 |
| [Medication, Active (V5)](#E_Medication_Active_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01 |
| [Medication, Administered (V5)](#E_Medication_Administered_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01 |
| [Medication, Discharge (V4)](#E_Medication_Discharge_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01 |
| [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01 |
| [Medication, Order (V5)](#E_Medication_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01 |
| [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01 |
| [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 (V4)](#E_Physical_Exam_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01 |
| [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01 |
| [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01 |
| [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 |
| [Procedure, Order (V5)](#E_Procedure_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01 |
| [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01 |
| [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01 |
| [Program Participation (V4)](#E_Program_Participation_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01 |
| [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01 |
| [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 (V5)](#E_Substance_Administered_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01 |
| [Substance, Order (V5)](#E_Substance_Order_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01 |
| [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01 |
| [Supply](#E_Supply) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.129:2017-08-01 |
| [Symptom (V4)](#E_Symptom_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01 |
| [Target Outcome](#E_Target_Outcome_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.128:2017-08-01 |

Table 166: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [QDM Templates for CQL-Based HQMF Header (V5)](#D_QDM_for_CQLBased_HQMF_Header_V5) | Document | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01 |
| [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 |
| [Data Criteria Section (V5)](#S_Data_Criteria_Section_V5) | Section | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01 |
| [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 |
| [Related Person](#E_Related_Person_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.141:2019-05-01 |
| [Laboratory Test, Performed (V4)](#E_Laboratory_Test_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01 |
| [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 |
| [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 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Adverse Event (V4)](#E_Adverse_Event_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Allergy Intolerance (V4)](#E_Allergy_Intolerance_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Assessment, Order (V4)](#E_Assessment_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Assessment, Performed (V4)](#E_Assessment_Performed_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Assessment, Recommended (V4)](#E_Assessment_Recommended_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Care Goal (V4)](#E_Care_Goal_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Communication, Performed (V3)](#E_Communication_Performed_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Device, Order (V3)](#E_Device_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Device, Recommended (V3)](#E_Device_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Diagnosis (V4)](#E_Diagnosis_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Diagnostic Study, Order (V5)](#E_Diagnostic_Study_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Diagnostic Study, Performed (V4)](#E_Diagnostic_Study_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01 |
| [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 |
| [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 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Diagnostic Study, Recommended (V5)](#E_Diagnostic_Study_Recommended_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Encounter, Order (V3)](#E_Encounter_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Encounter, Performed (V4)](#E_Encounter_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01 |
| [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 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Encounter Class](#E_Encounter_Class) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.143:2021-02-01 |
| [Encounter, Recommended (V3)](#E_Encounter_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Family History (V3)](#E_Family_History_V3) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Immunization, Administered (V5)](#E_Immunization_Administered_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Immunization, Order (V4)](#E_Immunization_Order_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Intervention, Order (V3)](#E_Intervention_Order_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Intervention, Performed (V4)](#E_Intervention_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01 |
| [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 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Intervention, Recommended (V3)](#E_Intervention_Recommended_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Laboratory Test, Order (V4)](#E_Laboratory_Test_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Laboratory Test, Recommended (V4)](#E_Laboratory_Test_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Medication, Active (V5)](#E_Medication_Active_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Medication, Administered (V5)](#E_Medication_Administered_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Medication, Discharge (V4)](#E_Medication_Discharge_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Medication, Dispensed (V4)](#E_Medication_Dispensed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01 |
| [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 |
| [Related To](#E_Related_To_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.127:2017-08-01 |
| [Days Supplied](#E_Days_Supplied) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.133:2018-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Medication, Order (V5)](#E_Medication_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01 |
| [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 |
| [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 - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Patient Care Experience (V3)](#E_Patient_Care_Experience_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Physical Exam, Order (V4)](#E_Physical_Exam_Order_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Physical Exam, Performed (V4)](#E_Physical_Exam_Performed_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01 |
| [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 |
| [Result (V2)](#E_Result_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.101:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Procedure, Recommended (V4)](#E_Procedure_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Procedure, Order (V5)](#E_Procedure_Order_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Physical Exam, Recommended (V4)](#E_Physical_Exam_Recommended_V4_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |
| [Entity - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Program Participation (V4)](#E_Program_Participation_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01 |
| [Substance, Administered (V5)](#E_Substance_Administered_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Substance, Order (V5)](#E_Substance_Order_V5) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Substance, Recommended (V5)](#E_Substance_Recommended_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01 |
| [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 - Location](#E_Entity_Location) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.142:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Symptom (V4)](#E_Symptom_V4) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01 |
| [Severity Observation (V2)](#E_Severity_Observation_2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.93:2017-08-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Procedure, Performed (V5)](#E_Procedure_Performed_V5_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01 |
| [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 |
| [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 |
| [Status (V2)](#E_Status_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.94:2017-08-01 |
| [Rank](#E_Rank) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.139:2019-05-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Provider Care Experience (V3)](#E_Provider_Care_Experience_V3_) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01 |
| [Entity - Care Partner (V2)](#E_Entity_Care_Partner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| [Entity - Patient (V2)](#E_Entity_Patient_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| [Entity - Organization (V2)](#E_Entity_Organization_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| [Entity - Practitioner (V2)](#E_Entity_Practitioner_V2) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| [Device, Applied (RETIRED)](#E_Device_Applied_RETIRED) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2021-02-01 |
| [Reason](#E_Reason_V1) | Entry | urn:hl7ii:2.16.840.1.113883.10.20.28.4.88:2017-05-01 |

# Code Systems in This Guide

Table 167: 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 168: Retired Templates

| Name | OID | Description |
| --- | --- | --- |
| Device, Applied (RETIRED) | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2021-02-01 | 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. |

# Changes from Previous Version

QDM Templates for CQL-Based HQMF Header (V5)

[QDM Templates for CQL-Based HQMF Header (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01)](#D_QDM_for_CQLBased_HQMF_Header_V5)

| Change | Old | New |
| --- | --- | --- |
| Name | QDM Templates for CQL-Based HQMF Header (V4) | QDM Templates for CQL-Based HQMF Header (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.1.2:2021-02-01 |
| Description | This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.5). | This is the document header template for a CQL-based HQMF document that contains QDM-based entry templates (QDM Version 5.6). |
| CONF #: 4499-36338 Added |  | SHALL contain exactly one [1..1] dataCriteriaSection (CONF:4499-36338). |
| CONF #: 4423-35955 Removed | SHALL contain exactly one [1..1] dataCriteriaSection (CONF:4423-35955). |  |
| CONF #: 4499-33755 Modified | SHALL contain zero or one [0..1] @extension="2019-05-01" (CONF:4423-33755). | SHALL contain zero or one [0..1] @extension="2021-02-01" (CONF:4499-33755). |

Adverse Event (V4)

[Adverse Event (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01)](#E_Adverse_Event_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Adverse Event (V3) | Adverse Event (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.120:2021-02-01 |
| CONF #: 4499-36017 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36017). |
| CONF #: 4499-36018 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36018). |
| CONF #: 4499-36019 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36019). |
| CONF #: 4499-36020 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36020). |
| CONF #: 4423-34967 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34967). |  |
| CONF #: 4423-34969 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34969). |  |
| CONF #: 4423-34973 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-34973). |  |
| CONF #: 4423-35796 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35796). |  |
| CONF #: 4499-34531 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34531). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34531). |
| CONF #: 4499-34966 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34966) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-34966) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-34968 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34968) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-34968) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35795 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35795) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35795) such that it  Note: QDM Attribute: Recorder |

Allergy Intolerance (V4)

[Allergy Intolerance (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01)](#E_Allergy_Intolerance_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Allergy Intolerance (V3) | Allergy Intolerance (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.119:2021-02-01 |
| CONF #: 4499-36021 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36021). |
| CONF #: 4499-36022 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36022). |
| CONF #: 4499-36023 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36023). |
| CONF #: 4499-36024 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36024). |
| CONF #: 4423-34980 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34980). |  |
| CONF #: 4423-34982 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-34982). |  |
| CONF #: 4423-34984 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34984). |  |
| CONF #: 4423-35799 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35799). |  |
| CONF #: 4499-34532 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34532). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34532). |
| CONF #: 4499-34979 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34979) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-34979) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-34983 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34983) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-34983) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35798 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35798) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35798) such that it  Note: QDM Attribute: Recorder |

Assessment, Order (V4)

[Assessment, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01)](#E_Assessment_Order_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Assessment, Order (V2) | Assessment, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.131:2021-02-01 |
| CONF #: 4499-36025 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36025). |
| CONF #: 4499-36026 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36026). |
| CONF #: 4499-36027 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36027). |
| CONF #: 4499-36028 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36028). |
| CONF #: 4499-36029 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36029) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36030 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36030). |
| CONF #: 4499-36031 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36031). |
| CONF #: 4423-34989 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34989). |  |
| CONF #: 4423-34991 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-34991). |  |
| CONF #: 4423-34993 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34993). |  |
| CONF #: 4423-35802 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35802). |  |
| CONF #: 4499-34665 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34665). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34665). |
| CONF #: 4499-34988 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34988) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-34988) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-34992 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34992) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-34992) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35801 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35801) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35801) such that it  Note: QDM Attribute: Requester |

Assessment, Performed (V4)

[Assessment, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01)](#E_Assessment_Performed_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Assessment, Performed (V3) | Assessment, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.117:2021-02-01 |
| CONF #: 4499-36032 Added |  | MAY contain zero or one [0..1] effectiveTime (CONF:4499-36032) such that it  Note: QDM Attribute: Relevant Period (The Relevant Period references the time from the onset date to the abatement date) |
| CONF #: 4499-36033 Added |  | MAY contain zero or one [0..1] low (CONF:4499-36033).  Note: start time of Relevant Period. QDM Attribute: Relevant dateTime. |
| CONF #: 4499-36034 Added |  | MAY contain zero or one [0..1] high (CONF:4499-36034).  Note: stop time of Relevant Period |
| CONF #: 4499-36035 Added |  | MAY contain zero or one [0..1] interpretationCode (CONF:4499-36035).  Note: QDM Attribute: Interpretation |
| CONF #: 4499-36036 Added |  | The interpretationCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-36036). |
| CONF #: 4499-36037 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36037). |
| CONF #: 4499-36038 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36038). |
| CONF #: 4499-36039 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36039). |
| CONF #: 4499-36040 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36040). |
| CONF #: 4499-36041 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-36041). |
| CONF #: 4423-34998 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34998). |  |
| CONF #: 4423-35000 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35000). |  |
| CONF #: 4423-35002 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35002). |  |
| CONF #: 4423-35805 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35805). |  |
| CONF #: 4423-35956 Removed | 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 Removed | MAY contain zero or one [0..1] low (CONF:4423-35957).  Note: start time of Relevant Period. QDM Attribute: Relevant dateTime. |  |
| CONF #: 4423-35958 Removed | MAY contain zero or one [0..1] high (CONF:4423-35958).  Note: stop time of Relevant Period |  |
| CONF #: 4499-34254 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34254). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34254). |
| CONF #: 4499-34997 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34997) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-34997) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35001 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35001) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35001) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35804 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35804) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35804) such that it  Note: QDM Attribute: Performer |

Assessment, Recommended (V4)

[Assessment, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01)](#E_Assessment_Recommended_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Assessment, Recommended (V3) | Assessment, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.118:2021-02-01 |
| CONF #: 4499-36042 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36042). |
| CONF #: 4499-36043 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36043). |
| CONF #: 4499-36044 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36044). |
| CONF #: 4499-36045 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36045). |
| CONF #: 4499-36046 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36046) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36047 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36047). |
| CONF #: 4499-36048 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36048). |
| CONF #: 4423-35007 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35007). |  |
| CONF #: 4423-35009 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35009). |  |
| CONF #: 4423-35011 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35011). |  |
| CONF #: 4423-35808 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35808). |  |
| CONF #: 4499-34273 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34273). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34273). |
| CONF #: 4499-35006 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35006) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35006) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35010 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35010) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35010) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35807 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35807) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35807) such that it  Note: QDM Attribute: Requester |

Care Goal (V4)

[Care Goal (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01)](#E_Care_Goal_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Care Goal (V3) | Care Goal (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.7:2021-02-01 |
| CONF #: 4499-36049 Added |  | MAY contain zero or one [0..1] activityTime (CONF:4499-36049). |
| CONF #: 4499-36050 Added |  | The activityTime, if present, SHALL contain exactly one [1..1] low (CONF:4499-36050).  Note: QDM Attribute: statusDate (when the goal took effect) |
| CONF #: 4499-36051 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36051). |
| CONF #: 4499-36052 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36052). |
| CONF #: 4499-36053 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36053). |
| CONF #: 4499-36054 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4499-36054). |
| CONF #: 4423-35016 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35016). |  |
| CONF #: 4423-35018 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35018). |  |
| CONF #: 4423-35020 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35020). |  |
| CONF #: 4423-35811 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35811). |  |
| CONF #: 4423-35959 Removed | MAY contain zero or one [0..1] activityTime (CONF:4423-35959). |  |
| CONF #: 4423-35960 Removed | The activityTime, if present, SHALL contain exactly one [1..1] low (CONF:4423-35960).  Note: QDM Attribute: statusDate (when the goal took effect) |  |
| CONF #: 4499-33051 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33051). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33051). |
| CONF #: 4499-35015 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35015).  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35015).  Note: QDM Attribute: Performer |
| CONF #: 4499-35017 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35017).  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35017).  Note: QDM Attribute: Performer |
| CONF #: 4499-35810 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35810).  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35810).  Note: QDM Attribute: Performer |

Communication, Performed (V3)

[Communication, Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01)](#E_Communication_Performed_V3)

| Change | Old | New |
| --- | --- | --- |
| Name | Communication, Performed (V2) | Communication, Performed (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.132:2021-02-01 |
| CONF #: 4499-36055 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36055). |
| CONF #: 4499-36056 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36056). |
| CONF #: 4499-36057 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36057). |
| CONF #: 4499-36058 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36058) such that it  Note: QDM Attribute: Sender |
| CONF #: 4499-36059 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36059). |
| CONF #: 4499-36060 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36060). |
| CONF #: 4499-36061 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36061). |
| CONF #: 4499-36062 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36062). |
| CONF #: 4499-36063 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36063). |
| CONF #: 4499-36064 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36064) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4499-36065 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36065). |
| CONF #: 4499-36066 Added |  | SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36066). |
| CONF #: 4499-36067 Added |  | SHALL contain exactly one [1..1] @typeCode="IRCP" Information Recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36067). |
| CONF #: 4499-36127 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36127) such that it  Note: QDM Attribute: Sender |
| CONF #: 4499-36128 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36128). |
| CONF #: 4499-36129 Added |  | SHALL contain exactly one [1..1] @typeCode="DIST" distributor (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36129). |
| CONF #: 4423-34721 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34721). |  |
| CONF #: 4423-34853 Removed | SHALL contain exactly one [1..1] role (CONF:4423-34853). |  |
| CONF #: 4423-35049 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35049). |  |
| CONF #: 4423-35053 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35053). |  |
| CONF #: 4423-35056 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35056). |  |
| CONF #: 4423-35058 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35058). |  |
| CONF #: 4423-35814 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35814). |  |
| CONF #: 4499-34720 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34720) such that it  Note: QDM Attribute: Sender | MAY contain zero or more [0..\*] participation (CONF:4499-34720) such that it  Note: QDM Attribute: Sender |
| CONF #: 4499-34722 Modified | MAY contain zero or one [0..1] participation (CONF:4423-34722) such that it  Note: QDM Attribute: Recipient | MAY contain zero or more [0..\*] participation (CONF:4499-34722) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4499-35036 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35036). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-35036). |
| CONF #: 4499-35048 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35048) such that it  Note: QDM Attribute: Recipient | MAY contain zero or more [0..\*] participation (CONF:4499-35048) such that it  Note: QDM Attribute: Recipient |
| CONF #: 4499-35055 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35055) such that it  Note: QDM Attribute: Sender | MAY contain zero or more [0..\*] participation (CONF:4499-35055) such that it  Note: QDM Attribute: Sender |
| CONF #: 4499-35813 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35813) such that it  Note: QDM Attribute: Recipient | MAY contain zero or more [0..\*] participation (CONF:4499-35813) such that it  Note: QDM Attribute: Recipient |

Device, Applied (RETIRED)

Device, Applied (RETIRED) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2021-02-01)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Retired |
| Name | Device, Applied (V3) | Device, Applied (RETIRED) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.13:2021-02-01 |

Device, Order (V3)

[Device, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01)](#E_Device_Order_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Device, Order (V2) | Device, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.15:2021-02-01 |
| CONF #: 4499-36068 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36068). |
| CONF #: 4499-36069 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36069). |
| CONF #: 4499-36070 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36070). |
| CONF #: 4499-36071 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36071). |
| CONF #: 4499-36072 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36072) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36073 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36073). |
| CONF #: 4499-36074 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36074). |
| CONF #: 4423-35071 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35071). |  |
| CONF #: 4423-35074 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35074). |  |
| CONF #: 4423-35076 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35076). |  |
| CONF #: 4423-35821 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35821). |  |
| CONF #: 4499-33642 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33642). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33642). |
| CONF #: 4499-35070 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35070) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35070) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35073 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35073) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35073) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35820 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35820) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35820) such that it  Note: QDM Attribute: Requester |

Device, Recommended (V3)

[Device, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01)](#E_Device_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Device, Recommended (V2) | Device, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.16:2021-02-01 |
| CONF #: 4499-36075 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36075). |
| CONF #: 4499-36076 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36076). |
| CONF #: 4499-36077 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36077). |
| CONF #: 4499-36078 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36078). |
| CONF #: 4499-36079 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36079) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36080 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36080). |
| CONF #: 4499-36081 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36081). |
| CONF #: 4423-35080 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35080). |  |
| CONF #: 4423-35082 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35082). |  |
| CONF #: 4423-35084 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35084). |  |
| CONF #: 4423-35824 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35824). |  |
| CONF #: 4499-33699 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33699). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33699). |
| CONF #: 4499-35079 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35079) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35079) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35083 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35083) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35083) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35823 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35823) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35823) such that it  Note: QDM Attribute: Requester |

Diagnosis (V4)

[Diagnosis (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01)](#E_Diagnosis_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Diagnosis (V3) | Diagnosis (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.110:2021-02-01 |
| CONF #: 4499-36082 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36082). |
| CONF #: 4499-36083 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36083). |
| CONF #: 4499-36084 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36084). |
| CONF #: 4499-36085 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4499-36085). |
| CONF #: 4423-35107 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35107). |  |
| CONF #: 4423-35109 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35109). |  |
| CONF #: 4423-35111 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35111). |  |
| CONF #: 4423-35827 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35827). |  |
| CONF #: 4499-34321 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34321). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34321). |
| CONF #: 4499-35106 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35106).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35106).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35108 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35108).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35108).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35826 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35826).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35826).  Note: QDM Attribute: Recorder |

Diagnostic Study, Order (V5)

[Diagnostic Study, Order (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01)](#E_Diagnostic_Study_Order_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Diagnostic Study, Order (V4) | Diagnostic Study, Order (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.22:2021-02-01 |
| CONF #: 4499-36089 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36089). |
| CONF #: 4499-36090 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36090). |
| CONF #: 4499-36091 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36091). |
| CONF #: 4499-36092 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36092). |
| CONF #: 4499-36093 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36093) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36094 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36094). |
| CONF #: 4499-36095 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36095). |
| CONF #: 4423-35089 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35089). |  |
| CONF #: 4423-35091 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35091). |  |
| CONF #: 4423-35093 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35093). |  |
| CONF #: 4423-35830 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35830). |  |
| CONF #: 4499-33643 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33643). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33643). |
| CONF #: 4499-35088 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35088) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35088) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35092 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35092) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35092) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35829 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35829) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35829) such that it  Note: QDM Attribute: Requester |

Diagnostic Study, Performed (V4)

[Diagnostic Study, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01)](#E_Diagnostic_Study_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Diagnostic Study, Performed (V3) | Diagnostic Study, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.23:2021-02-01 |
| CONF #: 4499-36096 Added |  | MAY contain zero or one [0..1] interpretationCode (CONF:4499-36096).  Note: QDM Attribute: Interpretation |
| CONF #: 4499-36097 Added |  | The interpretationCode, if present, SHALL contain exactly one [1..1] item (CONF:4499-36097). |
| CONF #: 4499-36098 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36098). |
| CONF #: 4499-36099 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36099). |
| CONF #: 4499-36100 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36100). |
| CONF #: 4499-36101 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36101). |
| CONF #: 4499-36102 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36102) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36103 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36103). |
| CONF #: 4499-36104 Added |  | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4499-36104). |
| CONF #: 4499-36105 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36105). |
| CONF #: 4423-35098 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35098). |  |
| CONF #: 4423-35100 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35100). |  |
| CONF #: 4423-35104 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35104). |  |
| CONF #: 4423-35833 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35833). |  |
| CONF #: 4499-33605 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33605). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33605). |
| CONF #: 4499-35097 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35097) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35097) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35103 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35103) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35103) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35832 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35832) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35832) such that it  Note: QDM Attribute: Requester |

Diagnostic Study, Recommended (V5)

[Diagnostic Study, Recommended (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01)](#E_Diagnostic_Study_Recommended_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Diagnostic Study, Recommended (V4) | Diagnostic Study, Recommended (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.24:2021-02-01 |
| CONF #: 4499-36106 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36106). |
| CONF #: 4499-36107 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36107). |
| CONF #: 4499-36108 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36108). |
| CONF #: 4499-36109 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36109). |
| CONF #: 4499-36110 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36110) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36111 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36111). |
| CONF #: 4499-36112 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36112). |
| CONF #: 4423-35116 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35116). |  |
| CONF #: 4423-35118 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35118). |  |
| CONF #: 4423-35120 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35120). |  |
| CONF #: 4423-35836 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35836). |  |
| CONF #: 4499-33751 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33751). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33751). |
| CONF #: 4499-35115 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35115) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35115) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35119 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35119) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35119) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35835 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35835) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35835) such that it  Note: QDM Attribute: Requester |

Encounter, Order (V3)

[Encounter, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01)](#E_Encounter_Order_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Encounter, Order (V2) | Encounter, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.27:2021-02-01 |
| CONF #: 4499-36121 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36121). |
| CONF #: 4499-36122 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36122). |
| CONF #: 4499-36123 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36123). |
| CONF #: 4499-36124 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36124) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36125 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36125). |
| CONF #: 4499-36126 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36126). |
| CONF #: 4423-35125 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35125). |  |
| CONF #: 4423-35127 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35127). |  |
| CONF #: 4423-35839 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35839). |  |
| CONF #: 4499-33645 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33645). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33645). |
| CONF #: 4499-35124 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35124) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35124) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35126 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35126) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35126) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35838 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35838) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35838) such that it  Note: QDM Attribute: Requester |

Encounter, Performed (V4)

[Encounter, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01)](#E_Encounter_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Encounter, Performed (V3) | Encounter, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.5:2021-02-01 |
| CONF #: 4499-36113 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36113). |
| CONF #: 4499-36114 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36114). |
| CONF #: 4499-36115 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36115). |
| CONF #: 4499-36116 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36116). |
| CONF #: 4499-36117 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36117) such that it  Note: QDM Attribute: Participant |
| CONF #: 4499-36118 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36118). |
| CONF #: 4499-36119 Added |  | SHALL NOT contain [0..0] @actionNegationInd (CONF:4499-36119). |
| CONF #: 4499-36120 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36120). |
| CONF #: 4499-36352 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4499-36352) such that it  Note: QDM Attribute: Class |
| CONF #: 4499-36353 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36353). |
| CONF #: 4499-36354 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36354). |
| CONF #: 4499-36355 Added |  | MAY contain zero or one [0..1] outboundRelationship (CONF:4499-36355) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36356 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36356). |
| CONF #: 4499-36357 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36357). |
| CONF #: 4423-31007 Removed | MAY contain zero or one [0..1] @actionNegationInd (CONF:4423-31007).  Note: QDM Attribute: Negation Rationale |  |
| CONF #: 4423-35144 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35144). |  |
| CONF #: 4423-35146 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35146). |  |
| CONF #: 4423-35148 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35148). |  |
| CONF #: 4423-35842 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35842). |  |
| CONF #: 4499-33397 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33397). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33397). |
| CONF #: 4499-35143 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35143) such that it  Note: QDM Attribute: Participant | MAY contain zero or more [0..\*] participation (CONF:4499-35143) such that it  Note: QDM Attribute: Participant |
| CONF #: 4499-35147 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35147) such that it  Note: QDM Attribute: Participant | MAY contain zero or more [0..\*] participation (CONF:4499-35147) such that it  Note: QDM Attribute: Participant |
| CONF #: 4499-35841 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35841) such that it  Note: QDM Attribute: Participant | MAY contain zero or more [0..\*] participation (CONF:4499-35841) such that it  Note: QDM Attribute: Participant |

Encounter, Recommended (V3)

[Encounter, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01)](#E_Encounter_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Encounter, Recommended (V2) | Encounter, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.28:2021-02-01 |
| CONF #: 4499-36130 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36130). |
| CONF #: 4499-36131 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36131). |
| CONF #: 4499-36132 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36132). |
| CONF #: 4499-36133 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36133) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36134 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36134). |
| CONF #: 4499-36135 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36135). |
| CONF #: 4423-35162 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35162). |  |
| CONF #: 4423-35166 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35166). |  |
| CONF #: 4423-35845 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35845). |  |
| CONF #: 4499-33694 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33694). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33694). |
| CONF #: 4499-35161 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35161) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35161) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35165 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35165) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35165) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35844 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35844) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35844) such that it  Note: QDM Attribute: Requester |

Entity - Care Partner (V2)

[Entity - Care Partner (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01)](#E_Entity_Care_Partner_V2)

| Change | Old | New |
| --- | --- | --- |
| Name | Entity - Care Partner | Entity - Care Partner (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.134:2021-02-01 |
| Description | 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. | This template represents Entity that is care partner - a person that assits with a patient’s care (e.g., a family member and non-family, non-professional caregiver), but who is not the direct target of care. |
| CONF #: 4499-35978 Added |  | MAY contain zero or one [0..1] playingPerson (CONF:4499-35978). |
| CONF #: 4499-35979 Added |  | The playingPerson, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4499-35979).  Note: Relationship |
| CONF #: 4499-35980 Added |  | The asRolePlayed, if present, SHALL contain exactly one [1..1] code (CONF:4499-35980). |
| CONF #: 4499-35981 Added |  | The playingPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-35981). |
| CONF #: 4499-35982 Added |  | The playingPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-35982). |
| CONF #: 4499-35983 Added |  | The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-35983). |
| CONF #: 4499-35984 Added |  | This code SHOULD contain zero or one [0..1] @valueSet (CONF:4499-35984). |
| CONF #: 4499-35985 Added |  | The playingPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-35985).  Note: identifier |
| CONF #: 4499-35986 Added |  | The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35986). |
| CONF #: 4499-35987 Added |  | This item SHALL contain exactly one [1..1] @root (CONF:4499-35987). |
| CONF #: 4499-35988 Added |  | This item SHALL contain exactly one [1..1] @extension (CONF:4499-35988). |
| CONF #: 4423-35780 Removed | MAY contain zero or one [0..1] playingEntity (CONF:4423-35780).  Note: Relationship |  |
| CONF #: 4423-35788 Removed | The item, if present, SHALL contain exactly one [1..1] @extension (CONF:4423-35788). |  |
| CONF #: 4423-35789 Removed | The playingEntity, if present, MAY contain zero or one [0..1] roleScoped (CONF:4423-35789). |  |
| CONF #: 4423-35791 Removed | The roleScoped, if present, SHALL contain exactly one [1..1] code (CONF:4423-35791). |  |
| CONF #: 4423-35792 Removed | This code SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35792). |  |
| CONF #: 4499-35779 Modified | The id, if present, MAY contain zero or one [0..1] item (CONF:4423-35779). | The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35779). |
| CONF #: 4499-35783 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-35783). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-35783). |
| CONF #: 4499-35787 Modified | The item, if present, SHALL contain exactly one [1..1] @root (CONF:4423-35787). | This item SHALL contain exactly one [1..1] @root (CONF:4499-35787). |

Entity - Organization (V2)

[Entity - Organization (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01)](#E_Entity_Organization_V2)

| Change | Old | New |
| --- | --- | --- |
| Name | Entity - Organization | Entity - Organization (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.135:2021-02-01 |
| CONF #: 4499-35998 Added |  | MAY contain zero or one [0..1] id (CONF:4499-35998).  Note: id |
| CONF #: 4499-35999 Added |  | The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35999). |
| CONF #: 4499-36000 Added |  | This item SHALL contain exactly one [1..1] @root (CONF:4499-36000). |
| CONF #: 4499-36001 Added |  | This scopingOrganization SHALL contain exactly one [1..1] @classCode="ORG" organization (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36001). |
| CONF #: 4499-36002 Added |  | This scopingOrganization SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36002). |
| CONF #: 4499-34933 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34933). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34933). |

Entity - Patient (V2)

[Entity - Patient (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01)](#E_Entity_Patient_V2)

| Change | Old | New |
| --- | --- | --- |
| Name | Entity - Patient | Entity - Patient (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.136:2021-02-01 |
| CONF #: 4499-35991 Added |  | MAY contain zero or one [0..1] patientPerson (CONF:4499-35991). |
| CONF #: 4499-35992 Added |  | The patientPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-35992).  Note: identifier |
| CONF #: 4499-35993 Added |  | The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-35993). |
| CONF #: 4499-35994 Added |  | The patientPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CONF:4499-35994). |
| CONF #: 4499-35995 Added |  | The patientPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-35995). |
| CONF #: 4499-35996 Added |  | This item SHALL contain exactly one [1..1] @root (CONF:4499-35996). |
| CONF #: 4499-35997 Added |  | This item SHALL contain exactly one [1..1] @extension (CONF:4499-35997). |
| CONF #: 4423-34953 Removed | This item MAY contain zero or one [0..1] @extension (CONF:4423-34953). |  |
| CONF #: 4499-34948 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34948). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34948). |

Entity - Practitioner (V2)

[Entity - Practitioner (V2) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01)](#E_Entity_Practitioner_V2)

| Change | Old | New |
| --- | --- | --- |
| Name | Entity - Practitioner | Entity - Practitioner (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.137:2021-02-01 |
| CONF #: 4499-36003 Added |  | MAY contain zero or one [0..1] playingPerson (CONF:4499-36003). |
| CONF #: 4499-36004 Added |  | The playingPerson, if present, MAY contain zero or more [0..\*] id (CONF:4499-36004).  Note: identifier |
| CONF #: 4499-36005 Added |  | The id, if present, SHALL contain exactly one [1..1] item (CONF:4499-36005). |
| CONF #: 4499-36006 Added |  | The playingPerson, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4499-36006). |
| CONF #: 4499-36007 Added |  | The playingPerson, if present, SHALL contain exactly one [1..1] @classCode="PSN" person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36007). |
| CONF #: 4499-36008 Added |  | The playingPerson, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36008). |
| CONF #: 4499-36009 Added |  | This item SHALL contain exactly one [1..1] @root (CONF:4499-36009). |
| CONF #: 4499-36010 Added |  | This item SHALL contain exactly one [1..1] @extension (CONF:4499-36010). |
| CONF #: 4499-36011 Added |  | The asRolePlayed, if present, MAY contain zero or one [0..1] code (CONF:4499-36011).  Note: Attribute: role - role this practitioner may perform (e.g., doctor, nurse) |
| CONF #: 4499-36012 Added |  | The scopingEntity, if present, SHALL contain exactly one [1..1] @classCode="ENT" entity (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4499-36012). |
| CONF #: 4499-36013 Added |  | The scopingEntity, if present, SHALL contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:4499-36013). |
| CONF #: 4499-36014 Added |  | The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36014). |
| CONF #: 4499-36015 Added |  | The asRolePlayed, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36015). |
| CONF #: 4499-36016 Added |  | The roleScoped, if present, SHALL contain exactly one [1..1] @classCode="ROL" role (CONF:4499-36016). |
| CONF #: 4423-34978 Removed | This item SHALL contain exactly one [1..1] @extension (CONF:4423-34978). |  |
| CONF #: 4423-35597 Removed | MAY contain zero or one [0..1] playingEntity (CONF:4423-35597). |  |
| CONF #: 4423-35598 Removed | The playingEntity, if present, MAY contain zero or one [0..1] asRolePlayed (CONF:4423-35598). |  |
| CONF #: 4423-35600 Removed | 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) |  |
| CONF #: 4499-34922 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34922). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34922). |

Family History (V3)

[Family History (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01)](#E_Family_History_V3)

| Change | Old | New |
| --- | --- | --- |
| Name | Family History (V2) | Family History (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.111:2021-02-01 |
| CONF #: 4499-36136 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36136). |
| CONF #: 4499-36137 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36137). |
| CONF #: 4499-36138 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36138). |
| CONF #: 4423-35171 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35171). |  |
| CONF #: 4423-35175 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35175). |  |
| CONF #: 4423-35848 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35848). |  |
| CONF #: 4499-34383 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34383). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34383). |
| CONF #: 4499-35170 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35170) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35170) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35174 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35174) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35174) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35847 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35847) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35847) such that it  Note: QDM Attribute: Recorder |

Immunization, Administered (V5)

[Immunization, Administered (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01)](#E_Immunization_Administered_V5)

| Change | Old | New |
| --- | --- | --- |
| Name | Immunization, Administered (V4) | Immunization, Administered (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.112:2021-02-01 |
| CONF #: 4499-36139 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36139). |
| CONF #: 4499-36140 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36140). |
| CONF #: 4499-36141 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36141). |
| CONF #: 4499-36142 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36142). |
| CONF #: 4423-35180 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35180). |  |
| CONF #: 4423-35182 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35182). |  |
| CONF #: 4423-35187 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35187). |  |
| CONF #: 4423-35851 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35851). |  |
| CONF #: 4499-34384 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34384). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34384). |
| CONF #: 4499-35179 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35179) such that it  Note: QDM Attribute: Practitioner | MAY contain zero or more [0..\*] participation (CONF:4499-35179) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4499-35181 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35181) such that it  Note: QDM Attribute: Practitioner | MAY contain zero or more [0..\*] participation (CONF:4499-35181) such that it  Note: QDM Attribute: Practitioner |
| CONF #: 4499-35850 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35850) such that it  Note: QDM Attribute: Practitioner | MAY contain zero or more [0..\*] participation (CONF:4499-35850) such that it  Note: QDM Attribute: Practitioner |

Immunization, Order (V4)

[Immunization, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01)](#E_Immunization_Order_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Immunization, Order (V3) | Immunization, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.113:2021-02-01 |
| CONF #: 4499-36143 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36143). |
| CONF #: 4499-36144 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36144). |
| CONF #: 4499-36145 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36145). |
| CONF #: 4499-36146 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36146) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36147 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36147). |
| CONF #: 4499-36148 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36148). |
| CONF #: 4423-35190 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35190). |  |
| CONF #: 4423-35192 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35192). |  |
| CONF #: 4423-35854 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35854). |  |
| CONF #: 4499-34385 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34385). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34385). |
| CONF #: 4499-35189 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35189) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35189) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35191 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35191) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35191) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35853 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35853) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35853) such that it  Note: QDM Attribute: Requester |

Intervention, Order (V3)

[Intervention, Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01)](#E_Intervention_Order_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Intervention, Order (V2) | Intervention, Order (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.35:2021-02-01 |
| CONF #: 4499-36149 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36149). |
| CONF #: 4499-36150 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36150). |
| CONF #: 4499-36151 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36151). |
| CONF #: 4499-36152 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36152). |
| CONF #: 4499-36153 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36153) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36154 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36154). |
| CONF #: 4499-36155 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36155). |
| CONF #: 4423-35211 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35211). |  |
| CONF #: 4423-35213 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35213). |  |
| CONF #: 4423-35217 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35217). |  |
| CONF #: 4423-35857 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35857). |  |
| CONF #: 4499-33383 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33383). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33383). |
| CONF #: 4499-35210 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35210) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35210) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35212 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35212) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35212) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35856 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35856) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35856) such that it  Note: QDM Attribute: Requester |

Intervention, Performed (V4)

[Intervention, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01)](#E_Intervention_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Intervention, Performed (V3) | Intervention, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.36:2021-02-01 |
| CONF #: 4499-36156 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36156). |
| CONF #: 4499-36157 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36157). |
| CONF #: 4499-36158 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36158). |
| CONF #: 4499-36159 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36159). |
| CONF #: 4499-36160 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36160) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36161 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36161). |
| CONF #: 4499-36162 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36162). |
| CONF #: 4423-35220 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35220). |  |
| CONF #: 4423-35222 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35222). |  |
| CONF #: 4423-35226 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35226). |  |
| CONF #: 4423-35860 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35860). |  |
| CONF #: 4499-33384 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33384). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33384). |
| CONF #: 4499-35219 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35219) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35219) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35221 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35221) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35221) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35859 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35859) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35859) such that it  Note: QDM Attribute: Performer |

Intervention, Recommended (V3)

[Intervention, Recommended (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01)](#E_Intervention_Recommended_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Intervention, Recommended (V2) | Intervention, Recommended (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.37:2021-02-01 |
| CONF #: 4499-36163 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36163). |
| CONF #: 4499-36164 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36164). |
| CONF #: 4499-36165 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36165). |
| CONF #: 4499-36166 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36166). |
| CONF #: 4499-36167 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36167) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36168 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36168). |
| CONF #: 4499-36169 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36169). |
| CONF #: 4423-35229 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35229). |  |
| CONF #: 4423-35231 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35231). |  |
| CONF #: 4423-35235 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35235). |  |
| CONF #: 4423-35863 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35863). |  |
| CONF #: 4499-33385 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33385). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33385). |
| CONF #: 4499-35228 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35228) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35228) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35230 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35230) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35230) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35862 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35862) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35862) such that it  Note: QDM Attribute: Requester |

Laboratory Test, Order (V4)

[Laboratory Test, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01)](#E_Laboratory_Test_Order_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Laboratory Test, Order (V3) | Laboratory Test, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.41:2021-02-01 |
| CONF #: 4499-36170 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36170). |
| CONF #: 4499-36171 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36171). |
| CONF #: 4499-36172 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36172). |
| CONF #: 4499-36173 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36173). |
| CONF #: 4499-36174 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36174) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36175 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36175). |
| CONF #: 4499-36176 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36176). |
| CONF #: 4423-35238 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35238). |  |
| CONF #: 4423-35240 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35240). |  |
| CONF #: 4423-35244 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35244). |  |
| CONF #: 4423-35866 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35866). |  |
| CONF #: 4499-33649 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33649). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33649). |
| CONF #: 4499-35237 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35237) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35237) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35239 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35239) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35239) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35865 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35865) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35865) such that it  Note: QDM Attribute: Requester |

Laboratory Test, Performed (V4)

[Laboratory Test, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01)](#E_Laboratory_Test_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Laboratory Test, Performed (V3) | Laboratory Test, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.42:2021-02-01 |
| CONF #: 4499-35956 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-35956) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-35957 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-35957). |
| CONF #: 4499-35958 Added |  | MAY contain zero or one [0..1] interpretationCode (CONF:4499-35958).  Note: QDM Attribute: Interpretation |
| CONF #: 4499-35959 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-35959). |
| CONF #: 4499-36177 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36177). |
| CONF #: 4499-36178 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36178). |
| CONF #: 4499-36179 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36179). |
| CONF #: 4499-36180 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36180). |
| CONF #: 4423-35247 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35247). |  |
| CONF #: 4423-35249 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35249). |  |
| CONF #: 4423-35253 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35253). |  |
| CONF #: 4423-35872 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35872). |  |
| CONF #: 4499-33373 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33373). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33373). |
| CONF #: 4499-35246 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35246) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35246) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35248 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35248) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35248) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35871 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35871) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35871) such that it  Note: QDM Attribute: Performer |

Laboratory Test, Recommended (V4)

[Laboratory Test, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01)](#E_Laboratory_Test_Recommended_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Laboratory Test, Recommended (V3) | Laboratory Test, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.43:2021-02-01 |
| CONF #: 4499-36181 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36181). |
| CONF #: 4499-36182 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36182). |
| CONF #: 4499-36183 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36183). |
| CONF #: 4499-36184 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36184). |
| CONF #: 4499-36185 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36185) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36186 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36186). |
| CONF #: 4499-36187 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36187). |
| CONF #: 4423-35256 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35256). |  |
| CONF #: 4423-35258 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35258). |  |
| CONF #: 4423-35262 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35262). |  |
| CONF #: 4423-35869 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35869). |  |
| CONF #: 4499-33692 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33692). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33692). |
| CONF #: 4499-35255 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35255) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35255) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35257 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35257) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35257) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35868 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35868) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35868) such that it  Note: QDM Attribute: Requester |

Medication, Active (V5)

[Medication, Active (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01)](#E_Medication_Active_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Medication, Active (V4) | Medication, Active (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.44:2021-02-01 |
| CONF #: 4499-36188 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36188). |
| CONF #: 4499-36189 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36189). |
| CONF #: 4499-36190 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36190). |
| CONF #: 4499-36191 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36191). |
| CONF #: 4423-35265 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35265). |  |
| CONF #: 4423-35267 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35267). |  |
| CONF #: 4423-35271 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35271). |  |
| CONF #: 4423-35875 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35875). |  |
| CONF #: 4499-33376 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33376). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33376). |
| CONF #: 4499-35264 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35264) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35264) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35266 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35266) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35266) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35874 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35874) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35874) such that it  Note: QDM Attribute: Recorder |

Medication, Administered (V5)

[Medication, Administered (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01)](#E_Medication_Administered_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Medication, Administered (V4) | Medication, Administered (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.45:2021-02-01 |
| CONF #: 4499-36192 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36192). |
| CONF #: 4499-36193 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36193). |
| CONF #: 4499-36194 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36194). |
| CONF #: 4499-36195 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36195). |
| CONF #: 4423-35274 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35274). |  |
| CONF #: 4423-35276 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35276). |  |
| CONF #: 4423-35280 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35280). |  |
| CONF #: 4423-35878 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35878). |  |
| CONF #: 4499-33386 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33386). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33386). |
| CONF #: 4499-35273 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35273) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35273) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35275 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35275) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35275) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35877 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35877) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35877) such that it  Note: QDM Attribute: Performer |

Medication, Discharge (V4)

[Medication, Discharge (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01)](#E_Medication_Discharge_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Medication, Discharge (V3) | Medication, Discharge (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.48:2021-02-01 |
| CONF #: 4499-36196 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36196). |
| CONF #: 4499-36197 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36197). |
| CONF #: 4499-36198 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36198). |
| CONF #: 4499-36199 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36199). |
| CONF #: 4423-35295 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35295). |  |
| CONF #: 4423-35297 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35297). |  |
| CONF #: 4423-35301 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35301). |  |
| CONF #: 4423-35883 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35883). |  |
| CONF #: 4499-33439 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33439). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33439). |
| CONF #: 4499-35294 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35294) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35294) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35296 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35296) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35296) such that it  Note: QDM Attribute: Recorder |
| CONF #: 4499-35882 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35882) such that it  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35882) such that it  Note: QDM Attribute: Recorder |

Medication, Dispensed (V4)

[Medication, Dispensed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01)](#E_Medication_Dispensed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Medication, Dispensed (V3) | Medication, Dispensed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.49:2021-02-01 |
| CONF #: 4499-36200 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36200). |
| CONF #: 4499-36201 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36201). |
| CONF #: 4499-36202 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36202). |
| CONF #: 4499-36203 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36203) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4499-36204 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36204). |
| CONF #: 4499-36205 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36205). |
| CONF #: 4499-36206 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36206). |
| CONF #: 4499-36207 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36207). |
| CONF #: 4499-36208 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36208). |
| CONF #: 4499-36209 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36209) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36210 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36210). |
| CONF #: 4499-36211 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36211). |
| CONF #: 4499-36212 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36212). |
| CONF #: 4423-35304 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35304). |  |
| CONF #: 4423-35316 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35316). |  |
| CONF #: 4423-35321 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35321). |  |
| CONF #: 4423-35323 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35323). |  |
| CONF #: 4423-35328 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35328). |  |
| CONF #: 4423-35887 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35887). |  |
| CONF #: 4423-35889 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35889). |  |
| CONF #: 4499-35303 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35303) such that it  Note: QDM Attribute: Dispenser | MAY contain zero or more [0..\*] participation (CONF:4499-35303) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4499-33752 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33752). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33752). |
| CONF #: 4499-35315 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35315) such that it  Note: QDM Attribute: Dispenser | MAY contain zero or more [0..\*] participation (CONF:4499-35315) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4499-35320 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35320) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35320) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4499-35322 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35322) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35322) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4499-35886 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35886) such that it  Note: QDM Attribute: Dispenser | MAY contain zero or more [0..\*] participation (CONF:4499-35886) such that it  Note: QDM Attribute: Dispenser |
| CONF #: 4499-35888 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35888) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35888) such that it  Note: QDM Attribute: Prescriber |

Medication, Order (V5)

[Medication, Order (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01)](#E_Medication_Order_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Medication, Order (V4) | Medication, Order (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.51:2021-02-01 |
| CONF #: 4499-36213 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36213). |
| CONF #: 4499-36214 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36214). |
| CONF #: 4499-36215 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36215). |
| CONF #: 4499-36216 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36216) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36217 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36217). |
| CONF #: 4499-36218 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36218). |
| CONF #: 4423-35336 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35336). |  |
| CONF #: 4423-35338 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35338). |  |
| CONF #: 4423-35893 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35893). |  |
| CONF #: 4499-33443 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33443). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33443). |
| CONF #: 4499-35335 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35335) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35335) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4499-35337 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35337) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35337) such that it  Note: QDM Attribute: Prescriber |
| CONF #: 4499-35892 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35892) such that it  Note: QDM Attribute: Prescriber | MAY contain zero or more [0..\*] participation (CONF:4499-35892) such that it  Note: QDM Attribute: Prescriber |

Patient Care Experience (V3)

[Patient Care Experience (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01)](#E_Patient_Care_Experience_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Patient Care Experience (V2) | Patient Care Experience (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.52:2021-02-01 |
| CONF #: 4499-36219 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36219). |
| CONF #: 4499-36220 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36220). |
| CONF #: 4499-36221 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36221). |
| CONF #: 4499-36222 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4499-36222). |
| CONF #: 4423-35346 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35346). |  |
| CONF #: 4423-35348 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35348). |  |
| CONF #: 4423-35350 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35350). |  |
| CONF #: 4423-35896 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35896). |  |
| CONF #: 4499-33700 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33700). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33700). |
| CONF #: 4499-35345 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35345).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35345).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35347 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35347).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35347).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35895 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35895).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35895).  Note: QDM Attribute: Recorder |

Physical Exam, Order (V4)

[Physical Exam, Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01)](#E_Physical_Exam_Order_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Physical Exam, Order (V3) | Physical Exam, Order (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.61:2021-02-01 |
| CONF #: 4499-36223 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36223). |
| CONF #: 4499-36224 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36224). |
| CONF #: 4499-36225 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36225). |
| CONF #: 4499-36226 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36226). |
| CONF #: 4499-36227 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36227) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36228 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36228). |
| CONF #: 4499-36229 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36229). |
| CONF #: 4423-35374 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35374). |  |
| CONF #: 4423-35376 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35376). |  |
| CONF #: 4423-35378 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35378). |  |
| CONF #: 4499-33437 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33437). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33437). |
| CONF #: 4499-35373 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35373) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35373) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35377 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35377) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35377) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35898 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35898) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35898) such that it  Note: QDM Attribute: Requester |

Physical Exam, Performed (V4)

[Physical Exam, Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01)](#E_Physical_Exam_Performed_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Physical Exam, Performed (V3) | Physical Exam, Performed (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.62:2021-02-01 |
| CONF #: 4499-36230 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36230). |
| CONF #: 4499-36231 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36231). |
| CONF #: 4499-36232 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36232). |
| CONF #: 4499-36233 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36233). |
| CONF #: 4499-36234 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36234) such that it  Note: QDM Attribute: Components |
| CONF #: 4499-36235 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36235). |
| CONF #: 4499-36236 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36236). |
| CONF #: 4423-35365 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35365). |  |
| CONF #: 4423-35367 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35367). |  |
| CONF #: 4423-35369 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35369). |  |
| CONF #: 4423-35901 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35901). |  |
| CONF #: 4499-33428 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33428). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33428). |
| CONF #: 4499-35364 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35364) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35364) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35368 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35368) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35368) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35900 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35900) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35900) such that it  Note: QDM Attribute: Performer |

Physical Exam, Recommended (V4)

[Physical Exam, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01)](#E_Physical_Exam_Recommended_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Physical Exam, Recommended (V3) | Physical Exam, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.63:2021-02-01 |
| CONF #: 4499-36251 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36251). |
| CONF #: 4499-36252 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36252). |
| CONF #: 4499-36253 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36253). |
| CONF #: 4499-36254 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36254). |
| CONF #: 4499-36255 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36255) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4499-36256 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36256). |
| CONF #: 4499-36257 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36257). |
| CONF #: 4423-35479 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35479). |  |
| CONF #: 4423-35481 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35481). |  |
| CONF #: 4423-35485 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35485). |  |
| CONF #: 4423-35904 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35904). |  |
| CONF #: 4499-33449 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33449). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33449). |
| CONF #: 4499-35478 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35478) such that it  Note: QDM Attribute: Requseter | MAY contain zero or more [0..\*] participation (CONF:4499-35478) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4499-35480 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35480) such that it  Note: QDM Attribute: Requseter | MAY contain zero or more [0..\*] participation (CONF:4499-35480) such that it  Note: QDM Attribute: Requseter |
| CONF #: 4499-35903 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35903) such that it  Note: QDM Attribute: Requseter | MAY contain zero or more [0..\*] participation (CONF:4499-35903) such that it  Note: QDM Attribute: Requseter |

Procedure, Order (V5)

[Procedure, Order (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01)](#E_Procedure_Order_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Procedure, Order (V4) | Procedure, Order (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.66:2021-02-01 |
| CONF #: 4499-36244 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36244). |
| CONF #: 4499-36245 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36245). |
| CONF #: 4499-36246 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36246). |
| CONF #: 4499-36247 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36247). |
| CONF #: 4499-36248 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36248) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36249 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36249). |
| CONF #: 4499-36250 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36250). |
| CONF #: 4423-35466 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35466). |  |
| CONF #: 4423-35468 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35468). |  |
| CONF #: 4423-35476 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35476). |  |
| CONF #: 4423-35907 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35907). |  |
| CONF #: 4499-33422 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33422). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33422). |
| CONF #: 4499-35465 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35465) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35465) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35467 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35467) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35467) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35906 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35906) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35906) such that it  Note: QDM Attribute: Requester |

Procedure, Performed (V5)

[Procedure, Performed (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01)](#E_Procedure_Performed_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Procedure, Performed (V4) | Procedure, Performed (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.67:2021-02-01 |
| CONF #: 4499-36327 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36327). |
| CONF #: 4499-36328 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36328). |
| CONF #: 4499-36329 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36329). |
| CONF #: 4499-36330 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36330). |
| CONF #: 4499-36331 Added |  | MAY contain zero or more [0..\*] outboundRelationship (CONF:4499-36331) such that it  Note: QDM Attribute: Related To |
| CONF #: 4499-36332 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36332). |
| CONF #: 4499-36333 Added |  | SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4499-36333). |
| CONF #: 4423-35449 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35449). |  |
| CONF #: 4423-35451 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35451). |  |
| CONF #: 4423-35454 Removed | MAY contain zero or one [0..1] priorityCode (CONF:4423-35454).  Note: QDM Attribute: Priority |  |
| CONF #: 4423-35455 Removed | The priorityCode, if present, SHALL contain exactly one [1..1] item (CONF:4423-35455). |  |
| CONF #: 4423-35457 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35457). |  |
| CONF #: 4423-35460 Removed | This item SHOULD contain zero or one [0..1] @valueSet (CONF:4423-35460). |  |
| CONF #: 4423-35910 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35910). |  |
| CONF #: 4499-33398 Modified | This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33398). | This item SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33398). |
| CONF #: 4499-35448 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35448) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35448) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35450 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35450) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35450) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35909 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35909) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35909) such that it  Note: QDM Attribute: Performer |

Procedure, Recommended (V4)

[Procedure, Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01)](#E_Procedure_Recommended_V4_)

| Change | Old | New |
| --- | --- | --- |
| Name | Procedure, Recommended (V3) | Procedure, Recommended (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.68:2021-02-01 |
| CONF #: 4499-36237 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36237). |
| CONF #: 4499-36238 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36238). |
| CONF #: 4499-36239 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36239). |
| CONF #: 4499-36240 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36240). |
| CONF #: 4499-36241 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36241) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36242 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36242). |
| CONF #: 4499-36243 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36243). |
| CONF #: 4423-35426 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35426). |  |
| CONF #: 4423-35428 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35428). |  |
| CONF #: 4423-35432 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35432). |  |
| CONF #: 4423-35913 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35913). |  |
| CONF #: 4499-33417 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33417). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33417). |
| CONF #: 4499-35425 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35425) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35425) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35427 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35427) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35427) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35912 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35912) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35912) such that it  Note: QDM Attribute: Requester |

Program Participation (V4)

[Program Participation (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01)](#E_Program_Participation_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Program Participation (V3) | Program Participation (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.130:2021-02-01 |
| CONF #: 4423-35416 Removed | MAY contain zero or more [0..\*] participation (CONF:4423-35416).  Note: QDM Attribute: Recorder |  |
| CONF #: 4423-35417 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35417). |  |
| CONF #: 4423-35418 Removed | MAY contain zero or more [0..\*] participation (CONF:4423-35418).  Note: QDM Attribute: Recorder |  |
| CONF #: 4423-35419 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35419). |  |
| CONF #: 4423-35420 Removed | 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 Removed | 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 Removed | MAY contain zero or more [0..\*] participation (CONF:4423-35422).  Note: QDM Attribute: Recorder |  |
| CONF #: 4423-35423 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35423). |  |
| CONF #: 4423-35424 Removed | 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 Removed | MAY contain zero or more [0..\*] participation (CONF:4423-35918).  Note: QDM Attribute: Recorder |  |
| CONF #: 4423-35919 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35919). |  |
| CONF #: 4423-35920 Removed | 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 #: 4499-34825 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34825). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34825). |

Provider Care Experience (V3)

[Provider Care Experience (V3) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01)](#E_Provider_Care_Experience_V3_)

| Change | Old | New |
| --- | --- | --- |
| Name | Provider Care Experience (V2) | Provider Care Experience (V3) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.70:2021-02-01 |
| CONF #: 4499-36334 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36334). |
| CONF #: 4499-36335 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36335). |
| CONF #: 4499-36336 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36336). |
| CONF #: 4499-36337 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4499-36337). |
| CONF #: 4423-35356 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35356). |  |
| CONF #: 4423-35358 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35358). |  |
| CONF #: 4423-35360 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35360). |  |
| CONF #: 4423-35917 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35917). |  |
| CONF #: 4499-33701 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33701). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33701). |
| CONF #: 4499-35355 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35355).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35355).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35357 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35357).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35357).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35915 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35915).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35915).  Note: QDM Attribute: Recorder |

Substance, Administered (V5)

[Substance, Administered (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01)](#E_Substance_Administered_V5)

| Change | Old | New |
| --- | --- | --- |
| Name | Substance, Administered (V4) | Substance, Administered (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.73:2021-02-01 |
| CONF #: 4499-36262 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36262). |
| CONF #: 4499-36263 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36263). |
| CONF #: 4499-36264 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36264). |
| CONF #: 4499-36265 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36265). |
| CONF #: 4423-35408 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35408). |  |
| CONF #: 4423-35410 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35410). |  |
| CONF #: 4423-35414 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35414). |  |
| CONF #: 4423-35934 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35934). |  |
| CONF #: 4499-33393 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33393). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33393). |
| CONF #: 4499-35407 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35407) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35407) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35409 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35409) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35409) such that it  Note: QDM Attribute: Performer |
| CONF #: 4499-35933 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35933) such that it  Note: QDM Attribute: Performer | MAY contain zero or more [0..\*] participation (CONF:4499-35933) such that it  Note: QDM Attribute: Performer |

Substance, Order (V5)

[Substance, Order (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01)](#E_Substance_Order_V5)

| Change | Old | New |
| --- | --- | --- |
| Name | Substance, Order (V4) | Substance, Order (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.77:2021-02-01 |
| CONF #: 4499-36266 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36266). |
| CONF #: 4499-36267 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36267). |
| CONF #: 4499-36268 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36268). |
| CONF #: 4499-36269 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36269). |
| CONF #: 4499-36270 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36270) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36271 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36271). |
| CONF #: 4499-36272 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4499-36272). |
| CONF #: 4423-35401 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35401). |  |
| CONF #: 4423-35406 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35406). |  |
| CONF #: 4423-35928 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35928). |  |
| CONF #: 4423-35930 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35930). |  |
| CONF #: 4499-33652 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33652). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33652). |
| CONF #: 4499-35400 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35400) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35400) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35927 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35927) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35927) such that it  Note: QDM Attribute: Requester |

Substance, Recommended (V5)

[Substance, Recommended (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01)](#E_Substance_Recommended_V5_)

| Change | Old | New |
| --- | --- | --- |
| Name | Substance, Recommended (V4) | Substance, Recommended (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.78:2021-02-01 |
| CONF #: 4499-36273 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36273). |
| CONF #: 4499-36274 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36274). |
| CONF #: 4499-36275 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36275). |
| CONF #: 4499-36276 Added |  | SHALL contain exactly one [1..1] patient (CONF:4499-36276). |
| CONF #: 4499-36277 Added |  | MAY contain zero or more [0..\*] participation (CONF:4499-36277) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-36278 Added |  | SHALL contain exactly one [1..1] role (CONF:4499-36278). |
| CONF #: 4499-36279 Added |  | SHALL contain exactly one [1..1] @typeCode="PART" participation (CONF:4499-36279). |
| CONF #: 4423-35392 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35392). |  |
| CONF #: 4423-35394 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35394). |  |
| CONF #: 4423-35398 Removed | SHALL contain exactly one [1..1] patient (CONF:4423-35398). |  |
| CONF #: 4423-35925 Removed | SHALL contain exactly one [1..1] role (CONF:4423-35925). |  |
| CONF #: 4499-33693 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33693). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33693). |
| CONF #: 4499-35391 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35391) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35391) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35393 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35393) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35393) such that it  Note: QDM Attribute: Requester |
| CONF #: 4499-35924 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35924) such that it  Note: QDM Attribute: Requester | MAY contain zero or more [0..\*] participation (CONF:4499-35924) such that it  Note: QDM Attribute: Requester |

Symptom (V4)

[Symptom (V4) (urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01)](#E_Symptom_V4)

| Change | Old | New |
| --- | --- | --- |
| Name | Symptom (V3) | Symptom (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.4.116:2021-02-01 |
| CONF #: 4499-36280 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36280). |
| CONF #: 4499-36281 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36281). |
| CONF #: 4499-36282 Added |  | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4499-36282). |
| CONF #: 4499-36283 Added |  | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4499-36283). |
| CONF #: 4423-35383 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35383). |  |
| CONF #: 4423-35385 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35385). |  |
| CONF #: 4423-35389 Removed | The participation, if present, SHALL contain exactly one [1..1] patient (CONF:4423-35389). |  |
| CONF #: 4423-35922 Removed | The participation, if present, SHALL contain exactly one [1..1] role (CONF:4423-35922). |  |
| CONF #: 4499-34480 Modified | This item SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-34480). | This item SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-34480). |
| CONF #: 4499-35382 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35382).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35382).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35384 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35384).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35384).  Note: QDM Attribute: Recorder |
| CONF #: 4499-35921 Modified | MAY contain zero or one [0..1] participation (CONF:4423-35921).  Note: QDM Attribute: Recorder | MAY contain zero or more [0..\*] participation (CONF:4499-35921).  Note: QDM Attribute: Recorder |

Data Criteria Section (V5)

[Data Criteria Section (V5) (urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01)](#S_Data_Criteria_Section_V5)

| Change | Old | New |
| --- | --- | --- |
| Name | Data Criteria Section (V4) | Data Criteria Section (V5) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2019-05-01 | urn:hl7ii:2.16.840.1.113883.10.20.28.2.6:2021-02-01 |
| CONF #: 4499-36284 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36284). |
| CONF #: 4499-36285 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36285). |
| CONF #: 4499-36286 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36286). |
| CONF #: 4499-36287 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36287). |
| CONF #: 4499-36288 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36288). |
| CONF #: 4499-36289 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36289). |
| CONF #: 4499-36290 Added |  | SHALL contain exactly one [1..1] actCriteria (CONF:4499-36290). |
| CONF #: 4499-36291 Added |  | SHALL contain exactly one [1..1] supplyCriteria (CONF:4499-36291). |
| CONF #: 4499-36292 Added |  | SHALL contain exactly one [1..1] supplyCriteria (CONF:4499-36292). |
| CONF #: 4499-36293 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36293). |
| CONF #: 4499-36294 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36294). |
| CONF #: 4499-36295 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36295). |
| CONF #: 4499-36296 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36296). |
| CONF #: 4499-36297 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36297). |
| CONF #: 4499-36298 Added |  | SHALL contain exactly one [1..1] encounterCriteria (CONF:4499-36298). |
| CONF #: 4499-36299 Added |  | SHALL contain exactly one [1..1] encounterCriteria (CONF:4499-36299). |
| CONF #: 4499-36300 Added |  | SHALL contain exactly one [1..1] encounterCriteria (CONF:4499-36300). |
| CONF #: 4499-36301 Added |  | SHALL contain exactly one [1..1] actCriteria (CONF:4499-36301). |
| CONF #: 4499-36302 Added |  | SHALL contain exactly one [1..1] actCriteria (CONF:4499-36302). |
| CONF #: 4499-36303 Added |  | SHALL contain exactly one [1..1] actCriteria (CONF:4499-36303). |
| CONF #: 4499-36304 Added |  | SHALL contain exactly one [1..1] procedureCriteria (CONF:4499-36304). |
| CONF #: 4499-36305 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36305). |
| CONF #: 4499-36306 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36306). |
| CONF #: 4499-36307 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36307). |
| CONF #: 4499-36308 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36308). |
| CONF #: 4499-36309 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36309). |
| CONF #: 4499-36310 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36310). |
| CONF #: 4499-36311 Added |  | SHALL contain exactly one [1..1] supplyCriteria (CONF:4499-36311). |
| CONF #: 4499-36312 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36312). |
| CONF #: 4499-36313 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36313). |
| CONF #: 4499-36314 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36314). |
| CONF #: 4499-36315 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36315). |
| CONF #: 4499-36316 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36316). |
| CONF #: 4499-36317 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36317). |
| CONF #: 4499-36318 Added |  | SHALL contain exactly one [1..1] procedureCriteria (CONF:4499-36318). |
| CONF #: 4499-36319 Added |  | SHALL contain exactly one [1..1] procedureCriteria (CONF:4499-36319). |
| CONF #: 4499-36320 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36320). |
| CONF #: 4499-36321 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36321). |
| CONF #: 4499-36322 Added |  | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4499-36322). |
| CONF #: 4499-36323 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36323). |
| CONF #: 4499-36324 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36324). |
| CONF #: 4499-36325 Added |  | SHALL contain exactly one [1..1] procedureCriteria (CONF:4499-36325). |
| CONF #: 4499-36326 Added |  | SHALL contain exactly one [1..1] observationCriteria (CONF:4499-36326). |
| CONF #: 4423-32669 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32669). |  |
| CONF #: 4423-32685 Removed | MAY contain zero or more [0..\*] entry (CONF:4423-32685) such that it |  |
| CONF #: 4423-32687 Removed | SHALL contain exactly one [1..1] procedureCriteria (CONF:4423-32687). |  |
| CONF #: 4423-32693 Removed | SHALL contain exactly one [1..1] supplyCriteria (CONF:4423-32693). |  |
| CONF #: 4423-32696 Removed | SHALL contain exactly one [1..1] supplyCriteria (CONF:4423-32696). |  |
| CONF #: 4423-32717 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32717). |  |
| CONF #: 4423-32720 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32720). |  |
| CONF #: 4423-32723 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32723). |  |
| CONF #: 4423-32732 Removed | SHALL contain exactly one [1..1] encounterCriteria (CONF:4423-32732). |  |
| CONF #: 4423-32735 Removed | SHALL contain exactly one [1..1] encounterCriteria (CONF:4423-32735). |  |
| CONF #: 4423-32738 Removed | SHALL contain exactly one [1..1] encounterCriteria (CONF:4423-32738). |  |
| CONF #: 4423-32759 Removed | SHALL contain exactly one [1..1] actCriteria (CONF:4423-32759). |  |
| CONF #: 4423-32762 Removed | SHALL contain exactly one [1..1] actCriteria (CONF:4423-32762). |  |
| CONF #: 4423-32765 Removed | SHALL contain exactly one [1..1] actCriteria (CONF:4423-32765). |  |
| CONF #: 4423-32777 Removed | SHALL contain exactly one [1..1] procedureCriteria (CONF:4423-32777). |  |
| CONF #: 4423-32780 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32780). |  |
| CONF #: 4423-32783 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32783). |  |
| CONF #: 4423-32789 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-32789). |  |
| CONF #: 4423-32792 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-32792). |  |
| CONF #: 4423-32804 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-32804). |  |
| CONF #: 4423-32806 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-32806). |  |
| CONF #: 4423-32808 Removed | SHALL contain exactly one [1..1] supplyCriteria (CONF:4423-32808). |  |
| CONF #: 4423-32822 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32822). |  |
| CONF #: 4423-32846 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32846). |  |
| CONF #: 4423-32849 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32849). |  |
| CONF #: 4423-32852 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32852). |  |
| CONF #: 4423-32858 Removed | SHALL contain exactly one [1..1] procedureCriteria (CONF:4423-32858). |  |
| CONF #: 4423-32861 Removed | SHALL contain exactly one [1..1] procedureCriteria (CONF:4423-32861). |  |
| CONF #: 4423-32864 Removed | SHALL contain exactly one [1..1] procedureCriteria (CONF:4423-32864). |  |
| CONF #: 4423-32870 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-32870). |  |
| CONF #: 4423-32998 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-32998). |  |
| CONF #: 4423-33007 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-33007). |  |
| CONF #: 4423-33013 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-33013). |  |
| CONF #: 4423-33951 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-33951). |  |
| CONF #: 4423-34037 Removed | SHALL contain exactly one [1..1] substanceAdministrationCriteria (CONF:4423-34037). |  |
| CONF #: 4423-34040 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34040). |  |
| CONF #: 4423-34057 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34057). |  |
| CONF #: 4423-34113 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34113). |  |
| CONF #: 4423-34178 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34178). |  |
| CONF #: 4423-34181 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34181). |  |
| CONF #: 4423-34260 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34260). |  |
| CONF #: 4423-34263 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34263). |  |
| CONF #: 4423-34679 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34679). |  |
| CONF #: 4423-34851 Removed | SHALL contain exactly one [1..1] actCriteria (CONF:4423-34851). |  |
| CONF #: 4423-34879 Removed | SHALL contain exactly one [1..1] observationCriteria (CONF:4423-34879). |  |
| CONF #: 4423-32686 Removed | 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). |  |
| CONF #: 4499-33440 Modified | SHALL contain exactly one [1..1] @extension="2019-05-01" (CONF:4423-33440). | SHALL contain exactly one [1..1] @extension="2021-02-01" (CONF:4499-33440). |

1. Measure Authoring Tool. https://www.emeasuretool.cms.gov/ [↑](#footnote-ref-1)