**HL7 CDA® R2 Implementation Guide:**

**Public Health Case Report, Release 2**

**(PI ID:1216)**

[HL7 IP boilerplate]

[Acknowledgements]

[Ballot instructions]

[Instructions to commenters]

Words to commenters, acknowledge stuff we already know, focus attention of the responder/comments to specific topics/needs

Topics to focus their attention on:

* 10 future data elements from CSTE
  + Items from list that would be easier to include:
    - 55
    - 56
    - 62
  + Items from list that would be more difficult to include:
    - 57
    - 58
    - 59
    - 60
    - 64
* Changes in C-CDA header
  + Ask Amit with Epic?- John Roberts talked with Amit on 11/2/2015
* Definitions and descriptions on data elements (particularly what’s needed for implementers)
* Differences between CSTE data elements and Templates from C-CDA
  + Explanatory text which could come from comment list

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# **1. Introduction**

1.1 Purpose

The purpose of this implementation guide (IG) to specify a standard for the submission of an electronic initial case report (eICR) in Clinical Document Architecture, Release 2 (CDA R2) US Realm format built upon Consolidated CDA (C-CDA) templates. The submission of public health case reports for specific infectious and non-infectious conditions is required by law in all States and Territories in the United States. In addition to supporting critical public health functions in State and Territorial Public Health Agencies (PHAs), the data from these case reports will also indirectly support notifications to the Centers for Disease Control and Prevention (CDC) for the Nationally Notifiable Disease Surveillance System (NNDSS) and nationwide disease monitoring.

This interoperability standard will enable the change in the process of reporting events of public health interest to take advantage of Electronic Health Record (EHR) adoption and workflows. It offers the potential of enabling a new level of public health reporting and information exchange between clinical care and public health with minimal clinician burden. Doing so may also involve other new interoperability standards and potential functional changes in EHRs and public health surveillance systems. Case reporting from EHRs is important to public health surveillance for under-reported clinical cases, emergency management of new conditions and for conditions for which a lab result is not a definitive criterion. Case reporting from EHRs also complements electronic laboratory reporting by providing critical clinical and demographic data that lab results do not convey.

The eICR is termed “initial” because the report will usually be automatically initiated when patient data updated in an Electronic Health Record (EHR) is matched against a series of public health reportable condition trigger codes. The eICR will also, at times, be manually initiated. The eICR will then convey core, initial case data to a PHA that will be the same for all reportable conditions in all jurisdictions to ease integration by EHR vendors and clinical care organizations so they can support this critical public health function. Common data elements for the eICR were identified by a task force of the Council of State and Territorial Epidemiologists (CSTE) (Appendix A). The data for the eICR are drawn from those known to be in electronic form in certified EHRs. These data elements were mapped to Consolidated Clinical Document Architecture (C-CDA) templates.

In some circumstances the eICR will be all that is needed by the appropriate PHAs to support reporting and outbreak management and will represent a significant advance in the electronic data PHAs receive from EHRs on reportable condition cases. In other circumstances, the eICR will lead to additional data acquisition / conveyance intended to confirm reportability, provide condition-specific or public health jurisdiction-specific reporting data, or support public health investigation, contact tracing, and/or countermeasure administration.

The eICR itself may be conveyed or referenced by a number of different transport methods. It will serve as input to automated reportability evaluation in the CSTE / CDC Reportable Conditions Knowledge Management System (RCKMS) and other systems. The HL7 Structured Data Capture (SDC) standard is considered to be a good complement to the eICR for the purpose of manually capturing disease specific supplemental data into forms. Receiving an eICR will also allow PHAs to communicate the reportability of a condition back to clinical care personnel and provide information about the health status of individual patients and of the community.

1.2 Audience

This IG is designed to provide EHR vendors with the specifications for developing the functionality of EHRs used in hospitals and by ambulatory care providers to report cases to PHAs. The IG will also be informative to health care providers, public health surveillance systems developers, health information exchange organizations, analysts, and managers of public health systems who seek guidance on reportable condition surveillance core data elements and reporting format specifications. Users of this IG must be familiar with the details of the HL7 CDA R2 document construction and the C-CDA templates.

1.3 Background

While case reporting from clinical care to Public Health Agencies is considered to be a core public health function, its electronic implementation has been slow to advance nationally because of a number of challenges. Laws requiring the reporting of infectious and non-infectious conditions are written individually by each State and Territory. Geographic differences in condition prevalence and other jurisdictional variations have created a complex array of reporting expectations for providers to know when, where, and what to report. Healthcare providers, for their part, have been historically inconsistent in reporting from clinical care by any process. A recent CDC study indicated that of the cases of Lyme disease recorded as a clinical diagnosis in clinical care, only about one out of ten are reported to the appropriate Public Health Agency.

Case reports are important for tracking disease trends at Local, State and National levels, but also serve to feed surveillance and outbreak management systems that support the investigation and management of individual cases and outbreaks in routine and emergent public health situations. State, Local and Territorial PHAs are authorized by law to receive identifiable case data to enable these activities.

Previous efforts to develop standards for the exchange of case data between clinical care and public health have been challenged by inter-organizational exchange issues, by efforts to develop numerous implementation guides to accommodate individual conditions, and in efforts to try to harmonize different jurisdictional reporting nuances and program specific data into one consolidated data specification.

Now, Stage III of the HITECH Meaningful Use program has identified electronic public health case reporting as an important option for clinical reporters to meet Meaningful Use criteria. It is hoped that this implementation guide will form part of future certification criteria to insure that consistent, comparable case reports are received by Public Health Agencies and that a consistent, common electronic initial Case Report can the target to be constructed by EHR vendors and clinical care providers regardless of the jurisdictions in which they must report.

This electronic Initial Case Report Implementation Guide builds on experience, specifications and lessons learned from the HL7 Implementation Guide for CDA Release 2: Public Health Case Reporting; Release 1, The ONC S&I Framework Public Health Case Reporting Initiative (PHRI), the Council of State and Territorial Epidemiologists (CSTE) “Minimum EHR Data for and Electronic Initial Case Report (eICR), work done by CSTE / CDC on the Reportable Conditions Knowledge Management System (RCKMS), and the Association of State and Territorial Health Officers (ASTHO) / Association of Public Health Labs (APHL) / CDC work on trigger codes for reportable conditions.

1.4 Scope of the implementation Guide

The following areas are In Scope for this IG:

* The data elements to be retrieved from the EHR to produce the electronic Initial Case Report (eICR)
* The specification of an eICR
* The structure of the eICR in HL7 CDA R2 format
* Describing the stakeholders and actors for each public health reporting User Story
* Defining a standard exchange format including structure and content (i.e., vocabulary)
* Defining the requirements for limited bi-directional[[1]](#footnote-1) exchange:
  + Sending the electronic initial case report from the EHR, receiving the electronic initial case report by PH, and sending acknowledging of receipt by PH
  + Sending the notice of reportability from PH, receiving the notice of reportability by the EHR, and receiving acknowledgment of receipt by EHR
* Identifying the requirements to send reports from certified EHR systems (in all clinical settings where EHR data is used for reporting purposes – inpatient, outpatient, emergency room, urgent care, etc.) to public health agencies (Note: reports may include administrative, laboratory, pharmacy and/or other information imported from separate systems into the EHR)

The following areas are Out of Scope for this IG:

* The specific trigger codes used to initiate the sending of an eICR
* The specifications for supplemental condition data
* The methods for providers to transmit eICRs to Public Health Agencies (PHAs)
* The methods for PHAs to receive and process eICRs
* The specification and methods for sending a “notice of reportability” or other information from the PHA to clinical care
* The specifications for PHAs to notify the Centers for Disease Control and Prevention of nationally notifiable diseases
* Defining specifications and guidelines on reportable event criteria (e.g., defining reportable conditions) – this Initiative will enable healthcare providers to submit a report based on jurisdictionally defined laws and regulation, but will not be responsible for defining the reporting criteria.
* Defining automated ‘business rules’ to identify potential reportable events – this Initiative will enable healthcare providers to submit a report but will not describe the criteria or business rules to identify when such a report should be sent
* Describing the process for healthcare providers to add information into an EHR or auxiliary system
* Describing the process for public health agencies to perform follow-up activities, including case monitoring
* Defining specifications and guidelines for reporting by means other than the transmission of an electronic message or document (e.g., telephone voice, manual web-entry and mailed or faxed information)
* Describing any additional or extensive bi-directional communication between a public health agency and a healthcare provider beyond the sending of an electronic initial case report, notice of reportability and the acknowledgement of receipt of that report
* Identifying transport protocols
* Identifying security requirements, methodologies, procedures, and/or protocols
* Identifying information and data stewardship practices and policies

1.5 Stakeholders

The key stakeholder groups interested in this Use Case and the associated standards and implementation specifications are included in the table below.

1.6 Future work / relationships to other projects / standards

Establishing an HL7 CDA R2 standard implementation guide for a core electronic initial case report that can be used by all jurisdictions and all conditions is a critical step in advancing the electronic implementation of case reporting between EHRs and Public Health Agencies. There are also other parts of the clinical care – public health workflow that need consideration when this has been accomplished.

1. A initial list of reportable condition trigger codes that can be used by EHR vendors to match clinical diagnoses and lab orders and results against has been developed by the Association of Public Health Labs (APHL) working with the Association of State and Territorial Health Officers (ASTHO) and the Council of State and Territorial Epidemiologists (CSTE). This trigger code list which will be critical in an ongoing way to identifying possible reportable conditions will be developed and maintained in an ongoing way outside of HL7.
2. The specification for return communication from the PHA to clinical care, contextualized for the patient in question, and potentially including information about that condition in that community has been sought by clinicians for some time. In addition to the specifics of the initial case report, such a “notice of reportability” could contain whether the condition is definitively reportable in that jurisdiction, if there are additional data needed to definitively determine reportability, links to the full reporting requirements in that jurisdiction, links to forms for the input of supplemental data desired for that condition, information about who to contact in the PHA if there are issues to work though via other means, and potentially other information.
3. There are also needs to develop specifications for PHAs to use to send more generalized alerts, not related to a single case, into clinical care. These alerts may relate to multiple suspicious cases, environmental events, or other important public health information important for clinical care providers.
4. On receiving an electronic initial case report, PHA personnel will, at times, manage the initial case report information to further investigate, seek more information from clinical care or from a health information exchange, and close the case or otherwise manage the case and the case status. The HL7 Structured Data Capture (SDC) standard may be helpful with providing forms for inputting supplemental information, but further domain analysis and implementation guide work may be needed in these areas as well.
5. With the advent of HL7 FHIR, there will be the need to develop a FHIR resource and profile for the electronic Initial Case Report (eICR). This work will proceed as part of this project by mapping the agreed upon data elements from the CDA IG.
6. For some reportable conditions identified by the CSTE and CDC, there is also the need to send notifications to the CDC. Characteristically, there have been times where individual disease programs have used different data elements for seemingly similar content. There have also been times when different jurisdictions have used some varying data elements from each other without a clear basis. Having standardized a core, electronic initial case report, and with appropriate support, it would be valuable for HL7 to convene all of the involved parties in a neutral setting to establish common standards for the FHIR resources and profiles for condition-specific data as well.

# **2. Use Cases for eICR**

2.1 Use Cases Assumptions

* Patient-level clinical information is entered, imported, or accessed by a healthcare provider using an EHR System interface.
* Broadly-acceptable security and transport protocols, patient identification methodology, privacy and security procedures, coding, vocabulary, and normalization standards exist and are in use by the EHR system and Public Health Agency system.
* The EHR system contains or has access to all relevant information (e.g., demographic, clinical, laboratory, pharmacy, etc.). The EHR is able to access to all needed data to generate a complete and accurate public health report in accordance with requirements described in the new IG.
* Appropriate data and information stewardship practices are adopted by exchange partners. Established network and policy infrastructure will exist to enable consistent, appropriate, and accurate information exchange across healthcare provider systems, data repositories and locator services.
* Electronic Health Record Systems may be a single stand-alone system or based upon a component-based architecture where the EHR interfaces with other systems that are used to help populate or transmit the report to public health.
* The Public Health Agency Information System and/or its intermediary system is in place and capable of receiving the report in a standardized structured format. Public health agency information systems and/or its intermediary system receive the public health report. These information systems may be a single stand-alone system or composed of a component based architecture that is used to receive and process the report for review and/or analysis.
* There will be a common standard set codes to be used to trigger the sending of an electronic initial case report from all EHRs.
* There will be a standard structure and set of data elements for the electronic initial case report, defined by this IG, to be used by all jurisdictions, for all conditions. The EHR system is capable of sending the electronic initial case report to a public health agency or its intermediary system.
* Public health decision support will support the variation in requirements for reporting that exist across local, state, tribal, and territorial boundaries, as well as voluntary versus mandatory requirements.
* The intermediary system HIE, if used, is responsible for passing the acknowledgement from the Public Health Agency Information system to the EHR system; the intermediary system may send separate acknowledgements, but these are not considered the authoritative acknowledgement.

2.2 Pre-Conditions

At least one of the following has occurred:

* A set of trigger codes, as provided and defined by PH, are maintained and used within the EHR system.
* A match of a trigger code in a patient encounter within the EHR has occurred.
* The EHR system populates/generates a report using the all appropriate information (e.g., data elements and terminology) for the report type.

2.3 Post Conditions

* The Public Health Agency Information system and/or its intermediary system has received the report and sent acknowledgement of receipt to the her system
* The sending healthcare provider EHR system has received acknowledgement of receipt of the report.
* A record of a report sent from the EHR to the public health agency is stored in a log
* A record of the electronic initial case report receipt and the sending of an acknowledgement of receipt is recorded in a log, in the Public Health Agency Information System and/or its intermediary system.

2.4 Actors and Roles

|  |  |
| --- | --- |
| Actor | Role |
| EHR System (healthcare provider system) | * Collect, receive, and/or store patient-level data * Consume and maintain trigger codes * Match trigger code and generate electronic initial case report * Send report to public health agency either directly or through an intermediary system * Receive acknowledgement of receipt either directly or through an intermediary |
| Public Health Agency Information System | * Receive report from EHR system or intermediary * Generate acknowledgement from public health agency * Send acknowledgement to EHR system either directly or through an intermediary |
| Actor | Role |
| Intermediary Systems, including PHCP Integration Engine, Health Information  Exchange Systems, Health Information Networks, etc. that are used as intermediaries to communicate between EHR systems and Public Health Agency systems | If applicable:   * Receive electronic initial case report from EHR system and send to Public Health Agency Information system * Receive acknowledgement of receipt from Public Health Agency Information System |

Table 2: Actors and Roles

2.5 Use Case Flow Diagram

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2.6 Scenarios for reporting an initial case report to public health

A patient presents to a healthcare provider for a clinical examination. The healthcare provider performs the clinical examination and may record a differential clinical diagnosis or order a laboratory test consistent with the findings. Additionally, a laboratory test result may be returned for that patient’s clinical encounter. This patient encounter is evaluated against a national set of trigger codes (including ICD-9 CM, ICD-10, and LOINC) that are locally implemented within the EHR system. The trigger codes are designed as non-specific codes to identify potentially reportable conditions. A diagnosis, lab order, or lab test code is matched with the trigger codes, and an electronic initial case report is generated and sent to Public Health.

The electronic initial case report contains the data elements necessary to initiate a public health investigation.

The electronic initial case report is received by the appropriate Public Health Authority with jurisdiction over the reporting facility. The electronic initial case report is evaluated using public health decision support and a notice of reportability is returned to the sending EHR system, inclusive of the public health decision support results (this includes the determination of reportability, information about the responsible public health jurisdiction, and a URL to a static or dynamic form).

By introducing automated public health reporting support, providers will be able to focus on the immediately reportable conditions that still require the provider to telephone the appropriate public health agency to initiate a public health investigation.

**Narrative with example:**

Patient A visits her doctor at Facility C after weeks of a low-grade fever and a worsening cough. Patient A presents to Dr. B, practicing at Facility C, with symptoms consistent with pertussis infection. After completing the clinical examination, Dr. B records a differential diagnosis of pertussis and orders a confirmatory laboratory test. This patient encounter is evaluated against a set of national trigger codes for public health reportable conditions that have been implemented within the EHR system at Facility C. Upon matching the differential diagnosis of pertussis to the trigger codes an electronic initial case report is generated and sent to the public health agency with authority over Facility C (or the public health agency’s proxy). An electronic initial case report may also be generated when the laboratory order for a confirmatory test is recorded.

Since the trigger codes are intentionally non-specific, the public health agency employs a public health decision support tool to help determine the reportability of the case referred by the EHR system at Facility C. The decision support tool identifies that suspicion of pertussis is reportable in the public health jurisdiction, a notice of reportability is sent back to the EHR system at Facility C. The electronic initial case report is integrated into the public health agency’s surveillance system for follow-up by a public health investigator. The investigator may contact Patient A to identify close contacts and verify immunity. The public health investigator may also contact Dr. B to follow-up on clinical findings.

Intermediary: The Public Health Agency may employ a proxy or intermediary to receive the initial electronic case report and determine the reportability using a shared public health reporting decision support tool. This intermediary would determine reportability based on the facility and/or patient’s location and the correct public health agency to route the initial electronic case report to. Pertinent information includes patient address and facility location to determine the jurisdiction with authority to receive this information. The public health agency determines whether or not an intermediary will be used.

**Alternative- Public Health Intermediary**

A patient presents to a healthcare provider for a clinical examination. The healthcare provider performs the clinical examination and may record a differential clinical diagnosis or order a laboratory test consistent with the findings. Additionally, a laboratory test result may be returned for that patient’s clinical encounter. This patient encounter is evaluated against a national set of trigger codes that are locally implemented within the EHR system. The trigger codes are designed as non-specific codes to identify potentially reportable conditions. A diagnosis, lab order, or lab test code is matched with the trigger codes, and an electronic initial case report is generated and sent to a centralized public health cloud-based intermediary designated by the public health authority.

The intermediary receives the eICR from the EHR system, evaluates the document against centrally hosted public health decision logic to determine the potential public health reportability based on the facility, provider, and/or patient address and patient encounter characteristics. The intermediary will route the eICR to the correct public health authority(s) consistent with the results of the public health decision support.

A notice of reportability inclusive of the results of the public health decision support will be routed back to the sending EHR system.

The electronic initial case report is received by the appropriate Public Health Authority based on the business rules administered by the intermediary. The receiving public health authority may contact the sending facility or provider for additional follow-up information pertinent to a public health investigation. This follow-up could be multi-modal including utilizing a structured data capture form, a phone call, or a query through an HIE.

Alternative triggering event- The clinical provider may initiate the sending of the electronic initial case report if the provider suspects that the patient has a condition of public health interest. This provider initiated trigger is important for patient encounters with non-specific symptomology that may not otherwise be triggered. Business rules in any public health reporting decision support tool should be able to differentiate between a provider initiated triggered eICR and an algorithm triggered eICR. This will allow public health to triage these reports differently with decision support and investigation initiation.

# **3. Data Requirements and IG Template Specifications**

3.1 CSTE Identified Data Requirements

| **ID** | **CSTE ELEMENT NAME** | **CSTE DESCRIPTION** | **RATIONALE / JUSTIFICATION** |
| --- | --- | --- | --- |
| 01 | Date of the Report | The date on which the reporting party (e.g., physician, nurse practitioner, physician assistant, etc.), completes collection of minimum data for the eICR | Used to assess timelines of eICR data provisioning, and other quality assurance tasks. |
| 02 | Report Submission Date/Time | The date and time at which the EHR system sends the eICR data to the jurisdictional public health agency or designee. | Used to ensure timeliness of report and to identify time lags between date of the report and when the EHR sends the report |
| 03 | Sending Application | The name of the sending application | Used to ensure quality and integrity of eICR data |
| 04 | Provider ID | Identification code for the care provider (e.g., NPI) | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 05 | Provider Name | The first and last name of the healthcare provider | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 06 | Provider Phone | The provider's phone number with area code | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 07 | Provider Fax | The provider's fax number with area code | Necessary to obtain additional info during case follow-up phase or to submit supplemental information. |
| 08 | Provider Email | The provider's email address | If secure email is available; used for sharing secure links to health data if allowed by state regulations |
| 09 | Provider Facility/Office Name | The provider facility's full name, not necessarily where care was provided to patient | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 10 | Provider Address | The geographical location or mailing address of the provider's office or facility. Address must include street address, office or suite number (if applicable), city or town, state, and zip code. | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 11 | Facility ID Number | Identification code for the facility (e.g., Facility NPI) | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 12 | Facility Name | The facility's name | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 13 | Facility Type | The type of facility where patient received or is receiving healthcare for the reportable condition (e.g., hospital, ambulatory, urgent care, etc.) | Used to determine the type of care setting in which patient is receiving care for the reportable condition. |
| 14 | Facility Phone | The facility's phone number with area code | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 15 | Facility Address | The mailing address for the facility where patient received or is receiving healthcare for the reportable condition. Must include street address, city/town, county, state, and zip code. | Need provider's contact information in order to follow up appropriately for reportable event to ensure appropriate treatment, identify contact exposures, etc. |
| 16 | Patient ID Number | Patient social security number, medical record number, or other identifying value as required or allowed under jurisdictional laws governing health data exchange. | Identification and contact; jurisdictions may select which they can receive based on laws governing public health data exchange |
| 17 | Patient Name | All names for the patient, including legal names and aliases. Must include the name type (i.e., legal or alias), first name, middle name, and last name. | Identification and contact |
| 18 | Parent/Guardian Name | All names for the patient’s parent or guardian, including legal names and aliases (if patient age is < 18 years). Must include name type (i.e., legal or alias), first name, middle name, and last name. | For appropriate contact with minors |
| 19 | Patient or Parent/Guardian Phone | All phone numbers and phone number types for the patient or parent/guardian | Contact Patient |
| 20 | Patient or Parent/Guardian Email | The email address for the patient or the patient’s parent/guardian. | Contact Patient |
| 19 | Patient or Parent/Guardian Phone | All phone numbers and phone number types for the patient or parent/guardian | Contact Patient |
| 20 | Patient or Parent/Guardian Email | The email address for the patient or the patient’s parent/guardian. | Contact Patient |
| 21 | Street Address | All addresses for the patient, including current and residential addresses. Must include street address, apartment or suite number, city or town, county, state, zip code, and country. | Case Assignment, analysis and visualization, Matching |
| 22 | Birth Date | The patient's date of birth | Appropriate identification, appropriate identification of minors, risk; Necessary to determine patient age; matching ELR |
| 23 | Patient Sex | The patient's biological sex (not gender) | Demographic reporting |
| 24 | Race | The patient's race | Demographic reporting |
| 25 | Ethnicity | The patient's ethnicity | Demographic reporting |
| 26 | Preferred Language | The patient's preferred language | Communication with Patient |
| 27 | Occupation | The patient's occupation | Identification of potential risk, transmission risk |
| 28 | Pregnant | The patient's pregnancy status | Appropriate treatment, follow-up, appropriate for scoring/risk ascertainment |
| 29 | Visit Date/Time | Date and time of the provider's most recent encounter with the patient regarding the reportable condition | Defines when the individual may have been ill; a point in time to which can link other potential cases of reportable event; necessary to ensure follow-up within key time frames/helps triage priority follow-up and ensure control measures are implemented in a timely way. |
| 30 | Admission Date/Time | Date and time when the patient was admitted to the treatment facility; e.g., hospital. | Key for epidemiologic investigation - important to know if hospitalized for severity of condition and to triage priority follow-up. |
| 31 | History of Present Illness | Physician’s narrative of the history of the reportable event. Hopefully a place where we can get information such as travel, contacts, etc. if captured. | Indicator of reportable condition - most important descriptor of condition/ epi information - supports epi investigation ; epidemiologic relevant information |
| 32 | Reason for Visit | Provider’s interpretation for the patient’s visit for the reportable event. | Indicator of reportable condition - most important descriptor of condition/ epi information - supports epi investigation |
| 33 | Date of Onset | The date of symptoms for the reportable event. | Helps determine possible exposure and illness- calculate incubation period |
| 34 | Symptoms (list) | List of patient symptoms (structured) for the reportable event. | We know if clinical symptoms signify a case of PH importance - confirm the need for PH follow up |
| 35 | Lab Order Code | Ordered tests for the patient during the encounter | Some lab test orders are reportable for suspected cases |
| 36 | Placer Order Number | Identifier for the lab order for during the encounter | Potential value to linking ELR reports to eICR; |
| 37 | Diagnoses | The healthcare provider's diagnoses of the patient's health condition (all) | Would include something that is potentially reportable |
| 38 | Date of Diagnosis | The date of provider diagnosis | We want to know when they're diagnosed; integral to epidemiological investigation |
| 39 | Medications Administered (list) | List of medications administered for the reportable event | To find treatments that were prescribed; prophylaxis; we know if they've already been treated, lower on the list for PH (priority) |
| 40 | Death Date | The patient's date of death | Patient follow-up and epidemiological purposes |
| F07 | Patient Class | Whether patient is outpatient, inpatient, emergency, urgent care |  |

3.2 eICR Data Model

3.3 Mapping of data elements to Data Model

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **CSTE ELEMENT NAME** | **Class Name** | **Class Attribute Name** |
| 01 | Date of the Report | IntialPublicHealthCaseReport | effectiveDate |
| 02 | Report Submission Date/Time | ReportSubmission | effectiveDate |
| 03 | Sending Application | ElectronicMedicalRecordSystem | name |
| 04 | Provider ID | Provider | identifier |
| 05 | Provider Name | Provider | name |
| 06 | Provider Phone | Provider | telecomAddress |
| 07 | Provider Fax | Provider | telecomAddress |
| 08 | Provider Email | Provider | telecomAddress |
| 09 | Provider Facility/Office Name | ProviderFacility | name |
| 10 | Provider Address | ProviderFacility | postalAddress |
| 11 | Facility ID Number | CareDeliveryFacility | identifier |
| 12 | Facility Name | CareDeliveryOrganization | name |
| 13 | Facility Type | CareDeliveryFacility | typeCode |
| 14 | Facility Phone | CareDeliveryOrganization | telecomAddress |
| 15 | Facility Address | CareDeliveryFacility | postalAddress |
| 16 | Patient ID Number | Patient | identifier |
| 17 | Patient Name | Patient | name |
| 18 | Parent/Guardian Name | PatientGuardian | name |
| 19 | Patient or Parent/Guardian Phone | PatientGuardian | telecomAddress |
| 20 | Patient or Parent/Guardian Email | PatientGuardian | telecomAddress |
| 19 | Patient or Parent/Guardian Phone | Patient | telecomAddress |
| 20 | Patient or Parent/Guardian Email | Patient | telecomAddress |
| 21 | Street Address | Patient | postalAddress |
| 22 | Birth Date | Patient | birthDate |
| 23 | Patient Sex | Patient | sexCode |
| 24 | Race | Patient | raceCode |
| 25 | Ethnicity | Patient | ethnicityCode |
| 26 | Preferred Language | Patient | preferredLanguage |
| 27 | Occupation | Patient | occupationCode |
| 28 | Pregnant | patient | isPregnantIndicator |
| 29 | Visit Date/Time | PatientEncounter | startDateTime |
| 30 | Admission Date/Time | PatientEncounter | startDateTime |
| 31 | History of Present Illness | PatientEncounter | presentIllnessHistoryText |
| 32 | Reason for Visit | PatientEncounter | reasonCode |
| 33 | Date of Onset | ReportableCondition | onsetDate |
| 34 | Symptoms (list) | ReportableConditionSymptom | typeCode |
| 35 | Lab Order Code | LaboratoryOrder | typeCode |
| 36 | Placer Order Number | LaboratoryOrder | identifier |
| 37 | Diagnoses | EncounterDiagnosis | typeCode |
| 38 | Date of Diagnosis | EncounterDiagnosis | effectiveDate |
| 39 | Medications Administered (list) | AdministeredMedication | typeCode |
| 40 | Death Date | Patient | deathDate |
| F07 | Patient Class | PatientEncounter | typeCode |

3.4 eICR Template Hierarchy

3.5 Mapping of Elements to IG Template

| **ID** | **CSTE ELEMENT NAME** | **IG Template** | **IG Constraint** | **Note** |
| --- | --- | --- | --- | --- |
| 01 | Date of the Report | US Realm Header (V3) | SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256). |  |
| 02 | Report Submission Date/Time | US Realm Header (V3) | Such authors SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5445). |  |
| 03 | Sending Application | US Realm Header (V3) | The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] softwareName (CONF:1198-16785). |  |
| 04 | Provider ID | eICR Initial Public Health Case Report Document | This assignedEntity SHALL contain exactly one [1..1] id (CONF:2218-8). |  |
| 05 | Provider Name | eICR Initial Public Health Case Report Document | This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:2218-25). |  |
| 06 | Provider Phone | eICR Initial Public Health Case Report Document | This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:2218-24). | URL.scheme = tel |
| 07 | Provider Fax | eICR Initial Public Health Case Report Document | This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:2218-24). | URL.scheme = fax |
| 08 | Provider Email | eICR Initial Public Health Case Report Document | This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:2218-24). | URL.scheme = mailto |
| 09 | Provider Facility/Office Name | eICR Initial Public Health Case Report Document | This representedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:2218-26). |  |
| 10 | Provider Address | eICR Initial Public Health Case Report Document | This representedOrganization **SHALL** contain exactly one [1..1] **addr** (CONF:2218-27). |  |
| 11 | Facility ID Number | eICR Initial Public Health Case Report Document | This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:2218-13). |  |
| 12 | Facility Name | eICR Initial Public Health Case Report Document | This serviceProviderOrganization **SHALL** contain exactly one [1..1] **name** (CONF:2218-33). |  |
| 13 | Facility Type | eICR Initial Public Health Case Report Document | This healthCareFacility **SHALL** contain exactly one [1..1] **code** (CONF:2218-14). |  |
| 14 | Facility Phone | eICR Initial Public Health Case Report Document | This serviceProviderOrganization **SHALL** contain exactly one [1..1] **telecom** (CONF:2218-34). | URL.scheme = tel |
| 15 | Facility Address | eICR Initial Public Health Case Report Document | This location **SHALL** contain exactly one [1..1] **addr** (CONF:2218-32). |  |
| 16 | Patient ID Number | US Realm Header (V3) | This patientRole SHALL contain at least one [1..\*] id (CONF:1198-5268). |  |
| 17 | Patient Name | US Realm Header (V3) | This patient SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5284). |  |
| 18 | Parent/Guardian Name | US Realm Header (V3) | This guardianPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5386). |  |
| 19 | Patient or Parent/Guardian Phone | US Realm Header (V3) | The guardian, if present, SHOULD contain zero or more [0..\*] telecom (CONF:1198-5382). | URL.scheme = tel |
| 20 | Patient or Parent/Guardian Email | US Realm Header (V3) | The guardian, if present, SHOULD contain zero or more [0..\*] telecom (CONF:1198-5382). | URL.scheme = mailto |
| 19 | Patient or Parent/Guardian Phone | US Realm Header (V3) | This patientRole SHALL contain at least one [1..\*] telecom (CONF:1198-5280). | URL.scheme = tel |
| 20 | Patient or Parent/Guardian Email | US Realm Header (V3) | This patientRole SHALL contain at least one [1..\*] telecom (CONF:1198-5280). | URL.scheme = mailto |
| 21 | Street Address | US Realm Header (V3) | This patientRole SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271). |  |
| 22 | Birth Date | US Realm Header (V3) | This patient SHALL contain exactly one [1..1] birthTime (CONF:1198-5298). |  |
| 23 | Patient Sex | US Realm Header (V3) | This patient SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:1198-6394). |  |
| 24 | Race | US Realm Header (V3) | This patient SHALL contain exactly one [1..1] raceCode, which SHALL be selected from ValueSet Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3 DYNAMIC (CONF:1198-5322). |  |
| 25 | Ethnicity | US Realm Header (V3) | This patient SHALL contain exactly one [1..1] ethnicGroupCode, which SHALL be selected from ValueSet Ethnicity urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC (CONF:1198-5323). |  |
| 26 | Preferred Language | US Realm Header (V3) | The languageCommunication, if present, SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:1198-5407). |  |
| 27 | Occupation | Social History Observation (V3) | SHOULD contain zero or one [0..1] value (CONF:1198-8559). | Observation.code = SCTID: 14679004 |
| 28 | Pregnant | Pregnancy Observation | SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:81-457). | SHALL contain exactly one [1..1] @negationInd (CONF:2218-111) |
| 29 | Visit Date/Time | eICR Initial Public Health Case Report Document | This effectiveTime SHALL contain exactly one [1..1] low (CONF:2218-20). | encompassingEncounter.code not= "IMP" |
| 30 | Admission Date/Time | eICR Initial Public Health Case Report Document | This effectiveTime SHALL contain exactly one [1..1] low (CONF:2218-20). | encompassingEncounter.code = "IMP" |
| 31 | History of Present Illness | History of Present Illness Section | SHALL contain exactly one [1..1] text (CONF:81-7851). |  |
| 32 | Reason for Visit | Reason for Visit Section | SHALL contain exactly one [1..1] text (CONF:81-7839). |  |
| 33 | Date of Onset | Problem Observation (V3) | This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-15603). |  |
| 34 | Symptoms (list) | Problem Observation (V3) | SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1198-9058). | Observation.code = LOINC: 75325-1 |
| 35 | Lab Order Code | Result Organizer (V3) | SHALL contain exactly one [1..1] code (CONF:1198-7128). |  |
| 36 | Placer Order Number | Result Organizer (V3) | SHALL contain at least one [1..\*] id (CONF:1198-7127). |  |
| 37 | Diagnoses | Problem Observation (V3) | SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1198-9058). | Observation.code = LOINC: 75324-4 |
| 38 | Date of Diagnosis | Encounter Activity (V3) | SHALL contain exactly one [1..1] effectiveTime (CONF:1198-8715). |  |
| 39 | Medications Administered (list) | Medication Information (V2) | This manufacturedMaterial SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4 DYNAMIC (CONF:1098-7412). |  |
| 40 | Death Date | eICR Initial Public Health Case Report Document | This patient MAY contain zero or one [0..1] sdtc:deceasedTime (CONF:2218-106). |  |
| F07 | Patient Class | eICR Initial Public Health Case Report Document | This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:2218-4). |  |

# **4. Document**

4.1 Initial Public Health Case Report Document (eICR) - Draft

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.114222.4.10.18:2015-11-05 (open)]

Table 1: Initial Public Health Case Report Document (eICR) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Encounters Section (entries required) (V3)](#S_Encounters_Section_entries_required_V3)  [History of Present Illness Section](#S_History_of_Present_Illness_Section)  [Medications Administered Section (V2)](#S_Medications_Administered_Section_V2)  [Problem Section (entries required) (V3)](#S_Problem_Section_entries_required_V3)  [Reason for Visit Section](#S_Reason_for_Visit_Section)  [Results Section (entries optional) (V3)](#S_Results_Section_entries_optional_V3)  [Social History Section (eICR)](#S_Social_History_Section_eICR) |

1. Conforms to [US Realm Header (V3)](#D_US_Realm_Header_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. SHALL contain exactly one [1..1] templateId (CONF:2218-94) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.114222.4.10.18" eICR Initial Public Health Case Report Document (CONF:2218-95).
   2. MAY contain zero or one [0..1] @extension (CONF:2218-96).
3. SHALL contain exactly one [1..1] recordTarget (CONF:2218-103).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:2218-104).
      1. This patientRole SHALL contain exactly one [1..1] patient (CONF:2218-105).
         1. This patient MAY contain zero or one [0..1] sdtc:deceasedTime (CONF:2218-106).
4. SHALL contain exactly one [1..1] componentOf (CONF:2218-1).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:2218-2).
      1. This encompassingEncounter SHALL contain at least one [1..\*] id (CONF:2218-3).
         1. Such ids MAY contain zero or one [0..1] @nullFlavor (CONF:2218-17).
      2. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:2218-4).  
         Note: PatientEncounter.typeCode
         1. This code SHALL contain exactly one [1..1] @code (CONF:2218-18).
         2. This code SHALL contain exactly one [1..1] @codeSystem, which SHALL be selected from CodeSystem ActEncounterCode (urn:oid:2.16.840.1.113883.1.11.13955) DYNAMIC (CONF:2218-19).
      3. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:2218-5).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:2218-20).  
            Note: PatientEncounter.fromDateTime
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:2218-21).  
            Note: PatientEncounter.thruDateTime
      4. This encompassingEncounter SHALL contain exactly one [1..1] responsibleParty (CONF:2218-6).
         1. This responsibleParty SHALL contain exactly one [1..1] assignedEntity (CONF:2218-7).  
            Note: ResponsibleProvider
            1. This assignedEntity SHALL contain exactly one [1..1] id (CONF:2218-8).  
               Note: ResponsibleProvider.identifier

This id SHALL contain exactly one [1..1] @root (CONF:2218-22).

This id MAY contain zero or one [0..1] @extension (CONF:2218-23).

* + - * 1. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:2218-24).  
           Note: ResponsibleProvider.telecomAddress
        2. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:2218-9).

This assignedPerson SHALL contain exactly one [1..1] name (CONF:2218-25).  
Note: ResponsibleProvider.name

* + - * 1. This assignedEntity SHALL contain exactly one [1..1] representedOrganization (CONF:2218-10).  
           Note: ResponsibleProviderFacility

This representedOrganization SHALL contain exactly one [1..1] name (CONF:2218-26).  
Note: ProviderFacility.name

This representedOrganization SHALL contain exactly one [1..1] addr (CONF:2218-27).  
Note: ProviderFacility.postalAddress

* + 1. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:2218-11).
       1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:2218-12).  
          Note: CareDeliveryFacility
          1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:2218-13).  
             Note: CareDeliveryFacility.identifier

This id SHALL contain exactly one [1..1] @root (CONF:2218-28).

This id MAY contain zero or one [0..1] @extension (CONF:2218-29).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code (CONF:2218-14).  
           Note: CareFacility.typeCode

This code SHALL contain exactly one [1..1] @code (CONF:2218-30).

This code SHALL contain exactly one [1..1] @codeSystem (CONF:2218-31).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] location (CONF:2218-15).

This location SHALL contain exactly one [1..1] addr (CONF:2218-32).  
Note: CareDeliveryFacility.postalAddress

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] serviceProviderOrganization (CONF:2218-16).  
           Note: CareDeliveryOrganization

This serviceProviderOrganization SHALL contain exactly one [1..1] name (CONF:2218-33).  
Note: CareDeliveryOrganization.name

This serviceProviderOrganization SHALL contain exactly one [1..1] telecom (CONF:2218-34).  
Note: CareDeliveryOrganization.telecomAddress

1. SHALL contain exactly one [1..1] component (CONF:2218-35).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:2218-85).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-86) such that it
         1. SHALL contain exactly one [1..1] [Encounters Section (entries required) (V3)](#S_Encounters_Section_entries_required_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01) (CONF:2218-90).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-97) such that it
         1. SHALL contain exactly one [1..1] [History of Present Illness Section](#S_History_of_Present_Illness_Section) (identifier: urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4) (CONF:2218-100).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-98) such that it
         1. SHALL contain exactly one [1..1] [Reason for Visit Section](#S_Reason_for_Visit_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.22.2.12) (CONF:2218-101).
      4. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-87) such that it
         1. SHALL contain exactly one [1..1] [Social History Section (eICR)](#S_Social_History_Section_eICR) (identifier: urn:oid:2.16.840.1.114222.4.10.18.1) (CONF:2218-91).
      5. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-99) such that it
         1. SHALL contain exactly one [1..1] [Problem Section (entries required) (V3)](#S_Problem_Section_entries_required_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01) (CONF:2218-102).
      6. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-88) such that it
         1. SHALL contain exactly one [1..1] [Medications Administered Section (V2)](#S_Medications_Administered_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09) (CONF:2218-92).
      7. This structuredBody SHALL contain exactly one [1..1] component (CONF:2218-89) such that it
         1. SHALL contain exactly one [1..1] [Results Section (entries optional) (V3)](#S_Results_Section_entries_optional_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01) (CONF:2218-93).

4.2 US Realm Header (V3) - Published

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

Table 2: US Realm Header (V3) Contexts

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

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

4.2.1 Properties

4.2.1.1 realmCode

1. SHALL contain exactly one [1..1] realmCode="US" (CONF:1198-16791).
2. SHALL contain exactly one [1..1] typeId (CONF:1198-5361).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:1198-5250).
   2. This typeId SHALL contain exactly one [1..1] @extension="POCD\_HD000040" (CONF:1198-5251).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-5252) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.1" (CONF:1198-10036).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32503).
   3. When asserting this templateId, all document, section, and entry templates **SHALL** include a templateId root without an extension. See C-CDA R2.1 Volume 1 - Design Considerations for additional detail (CONF:1198-32936).
4. SHALL contain exactly one [1..1] id (CONF:1198-5363).
   1. This id **SHALL** be a globally unique identifier for the document (CONF:1198-9991).
5. SHALL contain exactly one [1..1] code (CONF:1198-5253).
   1. This code **SHALL** specify the particular kind of document (e.g., History and Physical, Discharge Summary, Progress Note) (CONF:1198-9992).
6. SHALL contain exactly one [1..1] title (CONF:1198-5254).  
   Note: The title can either be a locally defined name or the displayName corresponding to clinicalDocument/code
7. SHALL contain exactly one [1..1] [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
8. SHALL contain exactly one [1..1] confidentialityCode, which SHOULD be selected from ValueSet [HL7 BasicConfidentialityKind](#HL7_BasicConfidentialityKind) urn:oid:2.16.840.1.113883.1.11.16926 STATIC (CONF:1198-5259).
9. SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet [Language](#Language) urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:1198-5372).
10. MAY contain zero or one [0..1] setId (CONF:1198-5261).
    1. If  setId is present versionNumber **SHALL** be present (CONF:1198-6380).
11. MAY contain zero or one [0..1] versionNumber (CONF:1198-5264).
    1. If versionNumber is present setId **SHALL** be present (CONF:1198-6387).

4.2.1.2 recordTarget

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

1. SHALL contain at least one [1..\*] recordTarget (CONF:1198-5266).
   1. Such recordTargets SHALL contain exactly one [1..1] patientRole (CONF:1198-5267).
      1. This patientRole SHALL contain at least one [1..\*] id (CONF:1198-5268).
      2. This patientRole SHALL contain at least one [1..\*] [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271).
      3. This patientRole SHALL contain at least one [1..\*] telecom (CONF:1198-5280).
         1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:1198-5375).
      4. This patientRole SHALL contain exactly one [1..1] patient (CONF:1198-5283).
         1. This patient SHALL contain at least one [1..\*] [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5284).
         2. This patient SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet [Administrative Gender (HL7 V3)](#Administrative_Gender_HL7_V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:1198-6394).
         3. This patient SHALL contain exactly one [1..1] birthTime (CONF:1198-5298).
            1. **SHALL** be precise to year (CONF:1198-5299).
            2. **SHOULD** be precise to day (CONF:1198-5300).

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

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

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

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

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

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

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

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

This addr MAY contain zero or one [0..1] postalCode, which SHALL be selected from ValueSet [PostalCode](#PostalCode) urn:oid:2.16.840.1.113883.3.88.12.80.2 DYNAMIC (CONF:1198-5403).

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

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

4.2.1.3 author

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

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

If this assignedAuthor is an assignedPerson

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

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

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

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

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

4.2.1.4 dataEnterer

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

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

4.2.1.5 informant

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

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

4.2.1.6 informant

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

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

4.2.1.7 custodian

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

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

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

4.2.1.8 informationRecipient

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

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

4.2.1.9 legalAuthenticator

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

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

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

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

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

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

4.2.1.10 sdtc:signatureText

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

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

4.2.1.11 authenticator

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

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

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

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

4.2.1.12 participant

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

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

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

4.2.1.13 inFulfillmentOf

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

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

4.2.1.14 documentationOf

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

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

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

4.2.1.15 performer

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

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

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

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

4.2.1.16 authorization

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

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

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

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

4.2.1.16 componentOf

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

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

4.3 Section Templates

4.3.1 Encounters Section (entries required) (V3) - Published

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01 (open)]

Table 3: Encounters Section (entries required) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) | [Encounter Activity (V3)](#E_Encounter_Activity_V3) |

This section lists and describes any healthcare encounters pertinent to the patient’s current health status or historical health history. An encounter is an interaction, regardless of the setting, between a patient and a practitioner who is vested with primary responsibility for diagnosing, evaluating, or treating the patient’s condition. It may include visits, appointments, as well as non-face-to-face interactions. It is also a contact between a patient and a practitioner who has primary responsibility (exercising independent judgment) for assessing and treating the patient at a given contact. This section may contain all encounters for the time period being summarized, but should include notable encounters.

1. Conforms to Encounters Section (entries optional) (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.22:2015-08-01).
2. MAY contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32815).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-8705) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.22.1" (CONF:1198-10387).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32548).
4. SHALL contain exactly one [1..1] code (CONF:1198-15466).
   1. This code SHALL contain exactly one [1..1] @code="46240-8" Encounters (CONF:1198-15467).
   2. This code SHALL contain exactly one [1..1] @codeSystem=" 2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:1198-31137).
5. SHALL contain exactly one [1..1] title (CONF:1198-8707).
6. SHALL contain exactly one [1..1] text (CONF:1198-8708).

If section/@nullFlavor is not present:

1. SHALL contain at least one [1..\*] entry (CONF:1198-8709) such that it
   1. SHALL contain exactly one [1..1] [Encounter Activity (V3)](#E_Encounter_Activity_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:1198-15468).

4.3.2 History of Present Illness Section - Published

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4 (open)]

Table 4: History of Present Illness Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) |  |

The History of Present Illness section describes the history related to the reason for the encounter. It contains the historical details leading up to and pertaining to the patient’s current complaint or reason for seeking medical care.

1. SHALL contain exactly one [1..1] templateId (CONF:81-7848) such that it
   1. SHALL contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.3.4" (CONF:81-10458).
2. SHALL contain exactly one [1..1] code (CONF:81-15477).
   1. This code SHALL contain exactly one [1..1] @code="10164-2" (CONF:81-15478).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26478).
3. SHALL contain exactly one [1..1] title (CONF:81-7850).
4. SHALL contain exactly one [1..1] text (CONF:81-7851).

4.3.3 Medications Administered Section (V2) - Published

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09 (open)]

Table 5: Medications Administered Section (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) | [Medication Activity (V2)](#Medication_Activity_V2) |

The Medications Administered Section usually resides inside a Procedure Note describing a procedure. This section defines medications and fluids administered during the procedure, its related encounter, or other procedure related activity excluding anesthetic medications. Anesthesia medications should be documented as described in the Anesthesia Section

templateId 2.16.840.1.113883.10.20.22.2.25.

1. SHALL contain exactly one [1..1] templateId (CONF:1098-8152) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.38" (CONF:1098-10405).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32525).
2. SHALL contain exactly one [1..1] code (CONF:1098-15383).
   1. This code SHALL contain exactly one [1..1] @code="29549-3" Medications Administered (CONF:1098-15384).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30829).
3. SHALL contain exactly one [1..1] title (CONF:1098-8154).
4. SHALL contain exactly one [1..1] text (CONF:1098-8155).
5. MAY contain zero or more [0..\*] entry (CONF:1098-8156).
   1. The entry, if present, SHALL contain exactly one [1..1] [Medication Activity (V2)](#Medication_Activity_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15499).

4.3.3 Problem Section (entries required) (V3) - Published

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01 (open)]

Table 6: Problem Section (entries required) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) | [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) |

This section lists and describes all relevant clinical problems at the time the document is generated. At a minimum, all pertinent current and historical problems should be listed. Overall health status may be represented in this section.

1. Conforms to Problem Section (entries optional) (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.5:2015-08-01).
2. MAY contain zero or one [0..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1198-32864).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-9179) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.5.1" (CONF:1198-10441).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32510).
4. SHALL contain exactly one [1..1] code (CONF:1198-15409).
   1. This code SHALL contain exactly one [1..1] @code="11450-4" Problem List (CONF:1198-15410).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31142).
5. SHALL contain exactly one [1..1] title (CONF:1198-9181).
6. SHALL contain exactly one [1..1] text (CONF:1198-9182).

If section/@nullFlavor is not present:

1. SHALL contain at least one [1..\*] entry (CONF:1198-9183) such that it
   1. SHALL contain exactly one [1..1] [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01) (CONF:1198-15506).
2. MAY contain zero or one [0..1] entry (CONF:1198-30479) such that it
   1. SHALL contain exactly one [1..1] Health Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.5:2014-06-09) (CONF:1198-30480).

4.3.4 Reason for Visit Section - Published

[section: identifier urn:oid:2.16.840.1.113883.10.20.22.2.12 (open)]

Table 7: Reason for Visit Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) |  |

This section records the patient’s reason for the patient's visit (as documented by the provider). Local policy determines whether Reason for Visit and Chief Complaint are in separate or combined sections.

1. SHALL contain exactly one [1..1] templateId (CONF:81-7836) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.12" (CONF:81-10448).
2. SHALL contain exactly one [1..1] code (CONF:81-15429).
   1. This code SHALL contain exactly one [1..1] @code="29299-5" Reason for Visit (CONF:81-15430).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-26494).
3. SHALL contain exactly one [1..1] title (CONF:81-7838).
4. SHALL contain exactly one [1..1] text (CONF:81-7839).

4.3.5 Results Section (entries optional) (V3) - Published

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01 (open)]

Table 8: Results Section (entries optional) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) | [Result Organizer (V3)](#E_Result_Organizer_V3) |

This section contains the results of observations generated by laboratories, imaging and other procedures. The scope includes observations of hematology, chemistry, serology, virology, toxicology, microbiology, plain x-ray, ultrasound, CT, MRI, angiography, echocardiography, nuclear medicine, pathology, and procedure observations.

This section often includes notable results such as abnormal values or relevant trends. It can contain all results for the period of time being documented.

Laboratory results are typically generated by laboratories providing analytic services in areas such as chemistry, hematology, serology, histology, cytology, anatomic pathology, microbiology, and/or virology. These observations are based on analysis of specimens obtained from the patient and submitted to the laboratory.

Imaging results are typically generated by a clinician reviewing the output of an imaging procedure, such as where a cardiologist reports the left ventricular ejection fraction based on the review of a cardiac echocardiogram.

Procedure results are typically generated by a clinician to provide more granular information about component observations made during a procedure, such as where a gastroenterologist reports the size of a polyp observed during a colonoscopy.

1. SHALL contain exactly one [1..1] templateId (CONF:1198-7116) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.3" (CONF:1198-9136).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32591).
2. SHALL contain exactly one [1..1] code (CONF:1198-15431).
   1. This code SHALL contain exactly one [1..1] @code="30954-2" Relevant diagnostic tests and/or laboratory data (CONF:1198-15432).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-31041).
3. SHALL contain exactly one [1..1] title (CONF:1198-8891).
4. SHALL contain exactly one [1..1] text (CONF:1198-7118).
5. SHOULD contain zero or more [0..\*] entry (CONF:1198-7119) such that it
   1. SHALL contain exactly one [1..1] [Result Organizer (V3)](#E_Result_Organizer_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:1198-15515).

4.3.6 Social History Section (eICR) - Draft

[section: identifier urn:oid:2.16.840.1.114222.4.10.18.1 (open)]

Table 9: Social History Section (eICR) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) (required) | [Pregnancy Observation (eICR)](#E_Pregnancy_Observation_eICR) |

1. Conforms to [Social History Section (V3)](#S_Social_History_Section_V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01).
2. SHALL contain exactly one [1..1] templateId (CONF:2218-107) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.114222.4.10.18.1" eICR Social History Section (CONF:2218-108).
   2. MAY contain zero or one [0..1] @extension (CONF:2218-109).
3. MAY contain zero or more [0..\*] entry (CONF:2218-114).
   1. The entry, if present, SHALL contain exactly one [1..1] [Pregnancy Observation (eICR)](#E_Pregnancy_Observation_eICR) (identifier: urn:oid:2.16.840.1.114222.4.10.18.1.5) (CONF:2218-115).

4.3.7 Social History Section (V3) - Published

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.17:2015-08-01 (open)]

Table 10: Social History Section (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Pregnancy Observation](#E_Pregnancy_Observation)  [Social History Observation (V3)](#E_Social_History_Observation_V3) |

This section contains social history data that influence a patient’s physical, psychological or emotional health (e.g., smoking status, pregnancy). Demographic data, such as marital status, race, ethnicity, and religious affiliation, is captured in the header.

1. SHALL contain exactly one [1..1] templateId (CONF:1198-7936) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.17" (CONF:1198-10449).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32494).
2. SHALL contain exactly one [1..1] code (CONF:1198-14819).
   1. This code SHALL contain exactly one [1..1] @code="29762-2" Social History (CONF:1198-14820).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-30814).
3. SHALL contain exactly one [1..1] title (CONF:1198-7938).
4. SHALL contain exactly one [1..1] text (CONF:1198-7939).
5. MAY contain zero or more [0..\*] entry (CONF:1198-7953) such that it
   1. SHALL contain exactly one [1..1] [Social History Observation (V3)](#E_Social_History_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01) (CONF:1198-14821).
6. MAY contain zero or more [0..\*] entry (CONF:1198-9132) such that it
   1. SHALL contain exactly one [1..1] [Pregnancy Observation](#E_Pregnancy_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8) (CONF:1198-14822).
7. SHOULD contain zero or more [0..\*] entry (CONF:1198-14823) such that it
   1. SHALL contain exactly one [1..1] Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:1198-14824).
8. MAY contain zero or more [0..\*] entry (CONF:1198-16816) such that it
   1. SHALL contain exactly one [1..1] Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:1198-16817).
9. MAY contain zero or more [0..\*] entry (CONF:1198-28361) such that it
   1. SHALL contain exactly one [1..1] Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:1198-28362).
10. MAY contain zero or more [0..\*] entry (CONF:1198-28366) such that it
    1. SHALL contain exactly one [1..1] Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:1198-28367).
11. MAY contain zero or more [0..\*] entry (CONF:1198-28825) such that it
    1. SHALL contain exactly one [1..1] Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:1198-28826).

4.4 Entry Templates

4.4.1 Encounter Activity (V3) - Published

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

Table 11: Encounter Activity (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounters Section (entries required) (V3)](#S_Encounters_Section_entries_required_V3) (required) | [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) |

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

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

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

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

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

4.4.2 Encounter Diagnosis (V3) - Published

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

Table 12: Encounter Diagnosis (V3) Contexts

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

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

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

4.4.3 Medication Activity (V2) - Published

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 (open)]

Table 13: Medication Activity (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Medications Administered Section (V2)](#S_Medications_Administered_Section_V2) (optional) | [Medication Information (V2)](#E_Medication_Information_V2) |

A Medication Activity describes substance administrations that have actually occurred (e.g., pills ingested or injections given) or are intended to occur (e.g., "take 2 tablets twice a day for the next 10 days"). Medication activities in "INT" mood are reflections of what a clinician intends a patient to be taking. For example, a clinician may intend that a patient to be administered Lisinopril 20 mg PO for blood pressure control. If what was actually administered was Lisinopril 10 mg., then the Medication activities in the "EVN" mood would reflect actual use.

A moodCode of INT is allowed, but it is recommended that the Planned Medication Activity (V2) template be used for moodCodes other than EVN if the document type contains a section that includes Planned Medication Activity (V2) (for example a Care Plan document with Plan of Treatment, Intervention, or Goal sections).

At a minimum, a Medication Activity shall include an effectiveTime indicating the duration of the administration (or single-administration timestamp). Ambulatory medication lists generally provide a summary of use for a given medication over time - a medication activity in event mood with the duration reflecting when the medication started and stopped. Ongoing medications will not have a stop date (or will have a stop date with a suitable NULL value). Ambulatory medication lists will generally also have a frequency (e.g., a medication is being taken twice a day). Inpatient medications generally record each administration as a separate act.

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable and the interval of administration. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

1. SHALL contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1098-7496).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet [MoodCodeEvnInt](#MoodCodeEvnInt) urn:oid:2.16.840.1.113883.11.20.9.18 STATIC 2011-04-03 (CONF:1098-7497).
3. SHALL contain exactly one [1..1] templateId (CONF:1098-7499) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1098-10504).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32498).
4. SHALL contain at least one [1..\*] id (CONF:1098-7500).
5. MAY contain zero or one [0..1] code (CONF:1098-7506).  
   Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used, and there is no defined value set.
6. SHALL contain exactly one [1..1] statusCode (CONF:1098-7507).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ActStatus](#ActStatus) urn:oid:2.16.840.1.113883.1.11.159331 DYNAMIC (CONF:1098-32360).

The substance administration effectiveTime field can repeat, in order to represent varying levels of complex dosing. effectiveTime can be used to represent the duration of administration (e.g., "10 days"), the frequency of administration (e.g., "every 8 hours"), and more. Here, we require that there SHALL be an effectiveTime documentation of the duration (or single-administration timestamp), and that there SHOULD be an effectiveTime documentation of the frequency. Other timing nuances, supported by the base CDA R2 standard, may also be included.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1098-7508) such that it  
   Note: This effectiveTime represents either the medication duration (i.e., the time the medication was started and stopped) or the single-administration timestamp.
   1. SHOULD contain zero or one [0..1] @value (CONF:1098-32775).  
      Note: indicates a single-administration timestamp
   2. SHOULD contain zero or one [0..1] low (CONF:1098-32776).  
      Note: indicates when medication started
   3. MAY contain zero or one [0..1] high (CONF:1098-32777).  
      Note: indicates when medication stopped
   4. This effectiveTime **SHALL** contain either a low or a @value but not both (CONF:1098-32890).
2. SHOULD contain zero or one [0..1] effectiveTime (CONF:1098-7513) such that it  
   Note: This effectiveTime represents the medication frequency (e.g., administration times per day).
   1. SHALL contain exactly one [1..1] @operator="A" (CONF:1098-9106).
   2. **SHALL** contain exactly one [1..1] @xsi:type="PIVL\_TS" or "EIVL\_TS" (CONF:1098-28499).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

1. MAY contain zero or one [0..1] repeatNumber (CONF:1098-7555).
2. SHOULD contain zero or one [0..1] routeCode, which SHALL be selected from ValueSet [Medication Route FDA](#Medication_Route_FDA) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 DYNAMIC (CONF:1098-7514).
3. MAY contain zero or one [0..1] approachSiteCode, where the code SHALL be selected from ValueSet [Body Site](#Body_Site) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:1098-7515).
4. SHALL contain exactly one [1..1] doseQuantity (CONF:1098-7516).
   1. This doseQuantity SHOULD contain zero or one [0..1] @unit, which SHALL be selected from ValueSet [UnitsOfMeasureCaseSensitive](#UnitsOfMeasureCaseSensitive) urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-7526).
   2. Pre-coordinated consumable: If the consumable code is a pre-coordinated unit dose (e.g., "metoprolol 25mg tablet") then doseQuantity is a unitless number that indicates the number of products given per administration (e.g., "2", meaning 2 x "metoprolol 25mg tablet" per administration) (CONF:1098-16878).
   3. Not pre-coordinated consumable: If the consumable code is not pre-coordinated (e.g., is simply "metoprolol"), then doseQuantity must represent a physical quantity with @unit, e.g., "25" and "mg", specifying the amount of product given per administration (CONF:1098-16879).
5. MAY contain zero or one [0..1] rateQuantity (CONF:1098-7517).
   1. The rateQuantity, if present, SHALL contain exactly one [1..1] @unit, which SHALL be selected from ValueSet [UnitsOfMeasureCaseSensitive](#UnitsOfMeasureCaseSensitive) urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC (CONF:1098-7525).
6. MAY contain zero or one [0..1] maxDoseQuantity (CONF:1098-7518).

administrationUnitCode@code describes the units of medication administration for an item using a code that is pre-coordinated to include a physical unit form (ointment, powder, solution, etc.) which differs from the units used in administering the consumable (capful, spray, drop, etc.). For example when recording medication administrations, “metric drop (C48491)” would be appropriate to accompany the RxNorm code of 198283 (Timolol 0.25% Ophthalmic Solution) where the number of drops would be specified in doseQuantity@value.

1. MAY contain zero or one [0..1] administrationUnitCode, which SHALL be selected from ValueSet [AdministrationUnitDoseForm](#AdministrationUnitDoseForm) urn:oid:2.16.840.1.113762.1.4.1021.30 DYNAMIC (CONF:1098-7519).
2. SHALL contain exactly one [1..1] consumable (CONF:1098-7520).
   1. This consumable SHALL contain exactly one [1..1] [Medication Information (V2)](#E_Medication_Information_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16085).
3. MAY contain zero or one [0..1] performer (CONF:1098-7522).
4. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31150).
5. MAY contain zero or more [0..\*] participant (CONF:1098-7523) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1098-7524).
   2. SHALL contain exactly one [1..1] Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1098-16086).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7536) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7537).
   2. SHALL contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-16087).
7. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7539) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7540).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7542).
   3. SHALL contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31387).
8. MAY contain zero or one [0..1] entryRelationship (CONF:1098-7543) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7547).
   2. SHALL contain exactly one [1..1] Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-16089).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7549) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7553).
   2. SHALL contain exactly one [1..1] Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1098-16090).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-7552) such that it
    1. SHALL contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1098-7544).
    2. SHALL contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16091).
11. MAY contain zero or one [0..1] entryRelationship (CONF:1098-30820) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-30821).
    2. SHALL contain exactly one [1..1] Drug Monitoring Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123) (CONF:1098-30822).

The following entryRelationship is used to indicate a given medication's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-31515) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31516).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:1098-31517).
   3. MAY contain zero or one [0..1] sequenceNumber (CONF:1098-31518).
   4. SHALL contain exactly one [1..1] Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1098-31519).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:1098-32907) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32908).
   2. SHALL contain exactly one [1..1] Medication Free Text Sig (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147) (CONF:1098-32909).
3. MAY contain zero or more [0..\*] precondition (CONF:1098-31520).
   1. The precondition, if present, SHALL contain exactly one [1..1] @typeCode="PRCN" (CONF:1098-31882).
   2. The precondition, if present, SHALL contain exactly one [1..1] Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-31883).
4. Medication Activity **SHOULD** include doseQuantity **OR** rateQuantity (CONF:1098-30800).

4.4.4 Medication Information (V2) - Published

[manufacturedProduct: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 (open)]

Table 14: Medication Information (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Medication Activity (V2)](#Medication_Activity_V2) (required) |  |

A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

1. SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:1098-7408).
2. SHALL contain exactly one [1..1] templateId (CONF:1098-7409) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:1098-10506).
   2. SHALL contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32579).
3. MAY contain zero or more [0..\*] id (CONF:1098-7410).
4. SHALL contain exactly one [1..1] manufacturedMaterial (CONF:1098-7411).  
   Note: A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack).
   1. This manufacturedMaterial SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [Medication Clinical Drug](#Medication_Clinical_Drug) urn:oid:2.16.840.1.113762.1.4.1010.4 DYNAMIC (CONF:1098-7412).
      1. This code MAY contain zero or more [0..\*] translation, which MAY be selected from ValueSet [Clinical Substance](#Clinical_Substance) urn:oid:2.16.840.1.113762.1.4.1010.2 DYNAMIC (CONF:1098-31884).
5. MAY contain zero or one [0..1] manufacturerOrganization (CONF:1098-7416).

4.4.5 Pregnancy Observation - Published

[observation: identifier urn:oid:2.16.840.1.113883.10.20.15.3.8 (open)]

Table 15: Pregnancy Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Social History Section (V3)](#S_Social_History_Section_V3) (optional) |  |

This clinical statement represents current and/or prior pregnancy dates enabling investigators to determine if the subject of the case report was pregnant during the course of a condition.

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:81-451).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:81-452).
3. SHALL contain exactly one [1..1] templateId (CONF:81-16768) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.15.3.8" (CONF:81-16868).
4. SHALL contain exactly one [1..1] code (CONF:81-19153).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:81-19154).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:81-26505).
5. SHALL contain exactly one [1..1] statusCode (CONF:81-455).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:81-19110).
6. SHOULD contain zero or one [0..1] effectiveTime (CONF:81-2018).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:81-457).
   1. This value SHALL contain exactly one [1..1] @code="77386006" Pregnant (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26460).
8. MAY contain zero or one [0..1] entryRelationship (CONF:81-458) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:81-459).
   2. SHALL contain exactly one [1..1] Estimated Date of Delivery (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.1) (CONF:81-15584).

4.4.6 Pregnancy Observation (eICR) - Draft

[observation: identifier urn:oid:2.16.840.1.114222.4.10.18.1.5 (open)]

Table 16: Pregnancy Observation (eICR) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Social History Section (eICR)](#S_Social_History_Section_eICR) (optional) |  |

1. Conforms to [Pregnancy Observation](#E_Pregnancy_Observation) template (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8).
2. SHALL contain exactly one [1..1] @negationInd (CONF:2218-111).
3. SHALL contain exactly one [1..1] templateId (CONF:2218-110) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.114222.4.10.18.1.5" eICR Pregnancy Observation (CONF:2218-112).
   2. MAY contain zero or one [0..1] @extension (CONF:2218-113).

4.4.7 Problem Concern Act (V3) - Published

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 (open)]

Table 17: Problem Concern Act (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Problem Section (entries required) (V3)](#S_Problem_Section_entries_required_V3) (required) | [Problem Observation (V3)](#E_Problem_Observation_V3) |

This template reflects an ongoing concern on behalf of the provider that placed the concern on a patient’s problem list. So long as the underlying condition is of concern to the provider (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest to the provider), the statusCode is “active”. Only when the underlying condition is no longer of concern is the statusCode set to “completed”. The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, the clinician may remain concerned about a prior heart attack).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

The effectiveTime/low of the Problem Concern Act asserts when the concern became active. This equates to the time the concern was authored in the patient's chart. The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

A Problem Concern Act can contain many Problem Observations (templateId 2.16.840.1.113883.10.20.22.4.4). Each Problem Observation is a discrete observation of a condition, and therefore will have a statusCode of “completed”. The many Problem Observations nested under a Problem Concern Act reflect the change in the clinical understanding of a condition over time. For instance, a Concern may initially contain a Problem Observation of “chest pain”:

- Problem Concern 1

   --- Problem Observation: Chest Pain

Later, a new Problem Observation of “esophagitis” will be added, reflecting a better understanding of the nature of the chest pain. The later problem observation will have a more recent author time stamp.

- Problem Concern 1

   --- Problem Observation (author/time Jan 3, 2012): Chest Pain

   --- Problem Observation (author/time Jan 6, 2012): Esophagitis

Many systems display the nested Problem Observation with the most recent author time stamp, and provide a mechanism for viewing prior observations.

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-9024).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-9025).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-16772) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.3" (CONF:1198-16773).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32509).
4. SHALL contain at least one [1..\*] id (CONF:1198-9026).
5. SHALL contain exactly one [1..1] code (CONF:1198-9027).
   1. This code SHALL contain exactly one [1..1] @code="CONC" Concern (CONF:1198-19184).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32168).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-9029).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

* 1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ProblemAct statusCode](#ProblemAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.19 STATIC (CONF:1198-31525).

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-9030).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-9032).  
      Note: The effectiveTime/low asserts when the concern became active. This equates to the time the concern was authored in the patient's chart.
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:1198-9033).  
      Note: The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).
2. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31146).
3. SHALL contain at least one [1..\*] entryRelationship (CONF:1198-9034) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-9035).
   2. SHALL contain exactly one [1..1] [Problem Observation (V3)](#E_Problem_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15980).

The following entryRelationship represents the importance of the concern to a provider.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-31638) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31639).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31640).

4.4.8 Problem Observation (V3) - Published

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 (open)]

Table 18: Problem Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) (required)  [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) (required) |  |

This template reflects a discrete observation about a patient's problem. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the “biologically relevant time” is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

The effectiveTime of the Problem Observation is the definitive indication of whether or not the underlying condition is resolved. If the problem is known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-9041).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-9042).

The negationInd is used to indicate the absence of the condition in observation/value. A negationInd of "true" coupled with an observation/value of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

1. MAY contain zero or one [0..1] @negationInd (CONF:1198-10139).
2. SHALL contain exactly one [1..1] templateId (CONF:1198-14926) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1198-14927).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32508).
3. SHALL contain at least one [1..\*] id (CONF:1198-9043).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Problem Type](#Problem_Type) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 STATIC 2012-06-01 (CONF:1198-9045).
   1. This code SHALL contain at least one [1..\*] translation, which SHOULD be selected from ValueSet [Problem Type](#Problem_Type) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 2014-09-02 (CONF:1198-32848).
5. SHALL contain exactly one [1..1] statusCode (CONF:1198-9049).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19112).

If the problem is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'. Therefore, the existence of an high element within a problem does indicate that the problem has been resolved.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became biologically active.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1198-15603).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became biologically resolved.

* 1. This effectiveTime MAY contain zero or one [0..1] high (CONF:1198-15604).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [Problem](#Problem) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:1198-9058).

The observation/value and all the qualifiers together (often referred to as a post-coordinated expression) make up one concept. Qualifiers constrain the meaning of the primary code, and cannot negate it or change its meaning. Qualifiers can only be used according to well-defined rules of post-coordination and only if the underlying code system defines the use of such qualifiers or if there is a third code system that specifies how other code systems may be combined.

For example, SNOMED CT allows constructing concepts as a combination of multiple codes. SNOMED CT defines a concept "pneumonia (disorder)" (233604007) an attribute "finding site" (363698007) and another concept "left lower lobe of lung (body structure)" (41224006). SNOMED CT allows one to combine these codes in a code phrase, as shown in the sample XML.

* 1. This value MAY contain zero or more [0..\*] qualifier (CONF:1198-31870).
  2. This value MAY contain zero or more [0..\*] translation (CONF:1198-16749) such that it
     1. MAY contain zero or one [0..1] @code (CodeSystem: ICD-10-CM urn:oid:2.16.840.1.113883.6.90 STATIC) (CONF:1198-16750).

A negationInd of "true" coupled with an observation/value/@code of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

* 1. This value MAY contain zero or one [0..1] @code (CONF:1198-31871).

1. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31147).
2. MAY contain zero or one [0..1] entryRelationship (CONF:1198-9059) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1198-9060).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:1198-9069).
   3. SHALL contain exactly one [1..1] Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15590).
3. MAY contain zero or one [0..1] entryRelationship (CONF:1198-29951) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31531).
   2. SHALL contain exactly one [1..1] Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:1198-29952).
4. MAY contain zero or more [0..\*] entryRelationship (CONF:1198-31063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31532).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31064).
5. MAY contain zero or one [0..1] entryRelationship (CONF:1198-9063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-9068).
   2. SHALL contain exactly one [1..1] Problem Status (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2014-06-09) (CONF:1198-15591).

4.4.9 Result Observation (V3) - Published

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 (open)]

Table 19: Result Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Result Organizer (V3)](#E_Result_Organizer_V3) (required) |  |

This template represents the results of a laboratory, radiology, or other study performed on a patient.

The result observation includes a statusCode to allow recording the status of an observation. “Pending” results (e.g., a test has been run but results have not been reported yet) should be represented as “active” ActStatus.

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-7130).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-7131).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-7136) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1198-9138).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32575).
4. SHALL contain at least one [1..\*] id (CONF:1198-7137).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-7133).
   1. This code **SHOULD** be a code from the LOINC that identifies the result observation. If an appropriate LOINC code does not exist, then the local code for this result **SHALL** be sent (CONF:1198-19212).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-7134).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Result Status](#Result_Status) urn:oid:2.16.840.1.113883.11.20.9.39 STATIC (CONF:1198-14849).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-7140).  
   Note: Represents the biologically relevant time of the measurement (e.g., the time a blood pressure reading is obtained, the time the blood sample was obtained for a chemistry test).
8. SHALL contain exactly one [1..1] value (CONF:1198-7143).
   1. If Observation/value is a physical quantity (**xsi:type**=**"PQ"**), the unit of measure **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-31484).
   2. A coded or physical quantity value **MAY** contain zero or more [0..\*] translations, which can be used to represent the original results as output by the lab (CONF:1198-31866).
   3. If Observation/value is a CD (**xsi:type**=**"CD"**) the value SHOULD be SNOMED-CT (CONF:1198-32610).
9. SHOULD contain zero or more [0..\*] interpretationCode (CONF:1198-7147).
   1. The interpretationCode, if present, SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Observation Interpretation (HL7)](#Observation_Interpretation_HL7) urn:oid:2.16.840.1.113883.1.11.78 STATIC (CONF:1198-32476).
10. MAY contain zero or one [0..1] methodCode (CONF:1198-7148).
11. MAY contain zero or one [0..1] targetSiteCode (CONF:1198-7153).
12. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-7149).
13. SHOULD contain zero or more [0..\*] referenceRange (CONF:1198-7150).
    1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:1198-7151).
       1. This observationRange SHALL NOT contain [0..0] code (CONF:1198-7152).
       2. This observationRange SHALL contain exactly one [1..1] value (CONF:1198-32175).

4.4.10 Result Organizer (V3) - Published

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01 (open)]

Table 20: Result Organizer (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Results Section (entries optional) (V3)](#S_Results_Section_entries_optional_V3) (optional) | [Result Observation (V3)](#E_Result_Observation_V3) |

This template provides a mechanism for grouping result observations. It contains information applicable to all of the contained result observations. The Result Organizer code categorizes the contained results into one of several commonly accepted values (e.g., “Hematology”, “Chemistry”, “Nuclear Medicine”).

If any Result Observation within the organizer has a statusCode of "active", the Result Organizer must also have a statusCode of "active".

1. SHALL contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-7121).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-7122).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-7126) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:1198-9134).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32588).
4. SHALL contain at least one [1..\*] id (CONF:1198-7127).
5. SHALL contain exactly one [1..1] code (CONF:1198-7128).
   1. **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) **OR** SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12) (CONF:1198-19218).
   2. Laboratory results **SHOULD** be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or other constrained terminology named by the US Department of Health and Human Services Office of National Coordinator or other federal agency (CONF:1198-19219).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-7123).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Result Status](#Result_Status) urn:oid:2.16.840.1.113883.11.20.9.39 STATIC (CONF:1198-14848).
7. MAY contain zero or one [0..1] effectiveTime (CONF:1198-31865).  
   Note: The effectiveTime is an interval that spans the effectiveTimes of the contained result observations. Because all contained result observations have a required time stamp, it is not required that this effectiveTime be populated.
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:1198-32488).
   2. The effectiveTime, if present, SHALL contain exactly one [1..1] high (CONF:1198-32489).
8. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31149).
9. SHALL contain at least one [1..\*] component (CONF:1198-7124) such that it
   1. SHALL contain exactly one [1..1] [Result Observation (V3)](#E_Result_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:1198-14850).

4.4.11 Social History Observation (V3) - Published

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01 (open)]

Table 21: Social History Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Social History Section (V3)](#S_Social_History_Section_V3) (optional) |  |

This template represents a patient's occupations, lifestyle, and environmental health risk factors. Demographic data (e.g., marital status, race, ethnicity, religious affiliation) are captured in the header. Though tobacco use and exposure may be represented with a Social History Observation, it is recommended to use the Current Smoking Status template or the Tobacco Use template instead, to represent smoking or tobacco habits.

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1198-8548).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1198-8549).
3. SHALL contain exactly one [1..1] templateId (CONF:1198-8550) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.38" (CONF:1198-10526).
   2. SHALL contain exactly one [1..1] @extension="2015-08-01" (CONF:1198-32495).
4. SHALL contain at least one [1..\*] id (CONF:1198-8551).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Social History Type](#Social_History_Type_) urn:oid:2.16.840.1.113883.3.88.12.80.60 STATIC 2008-12-18 (CONF:1198-8558).
   1. This code SHALL contain at least one [1..\*] translation, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32853).
6. SHALL contain exactly one [1..1] statusCode (CONF:1198-8553).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1198-19117).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1198-31868).
8. SHOULD contain zero or one [0..1] value (CONF:1198-8559).
   1. If Observation/value is a physical quantity (xsi:type="PQ"), the unit of measure **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive (2.16.840.1.113883.1.11.12839) **DYNAMIC** (CONF:1198-8555).
9. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31869).

4.5. Data Type Templates

4.5.1 US Realm Address (AD.US.FIELDED) - Published

[addr: identifier urn:oid:2.16.840.1.113883.10.20.22.5.2 (open)]

Table 22: US Realm Address (AD.US.FIELDED) Contexts

| Contained By: | Contains: |
| --- | --- |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) (required) |  |

Reusable address template, for use in US Realm CDA Header.

1. SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [PostalAddressUse](#PostalAddressUse) urn:oid:2.16.840.1.113883.1.11.10637 STATIC 2005-05-01 (CONF:81-7290).
2. SHOULD contain zero or one [0..1] country, which SHALL be selected from ValueSet [Country](#Country) urn:oid:2.16.840.1.113883.3.88.12.80.63 DYNAMIC (CONF:81-7295).
3. SHOULD contain zero or one [0..1] state (ValueSet: [StateValueSet](#StateValueSet) urn:oid:2.16.840.1.113883.3.88.12.80.1 DYNAMIC) (CONF:81-7293).
   1. State is required if the country is US. If country is not specified, it's assumed to be US. If country is something other than US, the state MAY be present but MAY be bound to different vocabularies (CONF:81-10024).
4. SHALL contain exactly one [1..1] city (CONF:81-7292).
5. SHOULD contain zero or one [0..1] postalCode, which SHOULD be selected from ValueSet [PostalCode](#PostalCode) urn:oid:2.16.840.1.113883.3.88.12.80.2 DYNAMIC (CONF:81-7294).
   1. PostalCode is required if the country is US. If country is not specified, it's assumed to be US. If country is something other than US, the postalCode MAY be present but MAY be bound to different vocabularies (CONF:81-10025).
6. SHALL contain exactly one [1..1] streetAddressLine (CONF:81-7291).
7. **SHALL NOT** have mixed content except for white space (CONF:81-7296).

4.5.2 US Realm Date and Time (DTM.US.FIELDED) - Published

[effectiveTime: identifier urn:oid:2.16.840.1.113883.10.20.22.5.4 (open)]

Table 23: US Realm Date and Time (DTM.US.FIELDED) Contexts

| Contained By: | Contains: |
| --- | --- |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) (required) |  |

The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement.

This data type uses the same rules as US Realm Date and Time (DT.US.FIELDED), but is used with elements having a datatype of TS.

1. **SHALL** be precise to the day (CONF:81-10127).
2. **SHOULD** be precise to the minute (CONF:81-10128).
3. **MAY** be precise to the second (CONF:81-10129).
4. If more precise than day, **SHOULD** include time-zone offset (CONF:81-10130).

4.5.3 US Realm Patient Name (PTN.US.FIELDED) - Published

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1 (open)]

The US Realm Patient Name datatype flavor is a set of reusable constraints that can be used for the patient or any other person. It requires a first (given) and last (family) name. If a patient or person has only one name part (e.g., patient with first name only) place the name part in the field required by the organization. Use the appropriate nullFlavor, "Not Applicable" (NA), in the other field.

For information on mixed content see the Extensible Markup Language reference (http://www.w3c.org/TR/2008/REC-xml-20081126/).

1. MAY contain zero or one [0..1] @use, which SHALL be selected from ValueSet [EntityNameUse](#EntityNameUse) urn:oid:2.16.840.1.113883.1.11.15913 STATIC 2005-05-01 (CONF:81-7154).
2. SHALL contain exactly one [1..1] family (CONF:81-7159).
   1. This family MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet [EntityPersonNamePartQualifier](#EntityPersonNamePartQualifier) urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7160).
3. SHALL contain at least one [1..\*] given (CONF:81-7157).
   1. Such givens MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet [EntityPersonNamePartQualifier](#EntityPersonNamePartQualifier) urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7158).
   2. The second occurrence of given (given2]) if provided, SHALL include middle name or middle initial (CONF:81-7163).
4. MAY contain zero or more [0..\*] prefix (CONF:81-7155).
   1. The prefix, if present, MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet [EntityPersonNamePartQualifier](#EntityPersonNamePartQualifier) urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7156).
5. MAY contain zero or one [0..1] suffix (CONF:81-7161).
   1. The suffix, if present, MAY contain zero or one [0..1] @qualifier, which SHALL be selected from ValueSet [EntityPersonNamePartQualifier](#EntityPersonNamePartQualifier) urn:oid:2.16.840.1.113883.11.20.9.26 STATIC 2011-09-30 (CONF:81-7162).
6. **SHALL NOT** have mixed content except for white space (CONF:81-7278).

4.5.4 US Realm Person Name (PN.US.FIELDED) - Published

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1.1 (open)]

Table 24: US Realm Person Name (PN.US.FIELDED) Contexts

| Contained By: | Contains: |
| --- | --- |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) (required) |  |

The US Realm Clinical Document Person Name datatype flavor is a set of reusable constraints that can be used for Persons.

1. SHALL contain exactly one [1..1] name (CONF:81-9368).
   1. The content of name **SHALL** be either a conformant Patient Name (PTN.US.FIELDED), or a string (CONF:81-9371).
   2. The string **SHALL NOT** contain name parts (<CONF:81-9372>).

4.6 Template Identifiers in This Guide

Table 25: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [Initial Public Health Case Report Document (eICR)](#D_Initial_Public_Health_Case_Report_Doc) | document | urn:hl7ii:2.16.840.1.114222.4.10.18:2015-11-05 |
| [Encounters Section (entries required) (V3)](#S_Encounters_Section_entries_required_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.22.1:2015-08-01 |
| [Encounter Activity (V3)](#E_Encounter_Activity_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01 |
| [Encounter Diagnosis (V3)](#E_Encounter_Diagnosis_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [History of Present Illness Section](#S_History_of_Present_Illness_Section) | section | urn:oid:1.3.6.1.4.1.19376.1.5.3.1.3.4 |
| [Medications Administered Section (V2)](#S_Medications_Administered_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.38:2014-06-09 |
| [Medication Activity (V2)](#Medication_Activity_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| [Medication Information (V2)](#E_Medication_Information_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| [Problem Section (entries required) (V3)](#S_Problem_Section_entries_required_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.5.1:2015-08-01 |
| [Problem Concern Act (V3)](#E_Problem_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 |
| [Problem Observation (V3)](#E_Problem_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| [Reason for Visit Section](#S_Reason_for_Visit_Section) | section | urn:oid:2.16.840.1.113883.10.20.22.2.12 |
| [Results Section (entries optional) (V3)](#S_Results_Section_entries_optional_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.3:2015-08-01 |
| [Result Organizer (V3)](#E_Result_Organizer_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01 |
| [Result Observation (V3)](#E_Result_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 |
| [Social History Section (eICR)](#S_Social_History_Section_eICR) | section | urn:oid:2.16.840.1.114222.4.10.18.1 |
| [Pregnancy Observation (eICR)](#E_Pregnancy_Observation_eICR) | entry | urn:oid:2.16.840.1.114222.4.10.18.1.5 |
| [US Realm Header (V3)](#D_US_Realm_Header_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01 |
| [US Realm Address (AD.US.FIELDED)](#U_US_Realm_Address_ADUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| [US Realm Date and Time (DTM.US.FIELDED)](#U_US_Realm_Date_and_Time_DTMUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| [US Realm Person Name (PN.US.FIELDED)](#U_US_Realm_Person_Name_PNUSFIELDED) | unspecified | urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |

# **5. Value Sets In This Guide**

5.1 Race Value Set

Table 26: Race

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race urn:oid:2.16.840.1.113883.1.11.14914  Concepts in the race value set include the 5 minimum categories for race specified by OMB along with a more detailed set of race categories used by the Bureau of Census.  Value Set Source: <https://vsac.nlm.nih.gov/> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 2028-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asian |
| 2054-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Black or African American |
| 2076-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Native Hawaiian or Other Pacific Islander |
| 2106-3 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | White |
| 1006-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Abenaki |
| 1579-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Absentee Shawnee |
| 1490-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Acoma |
| 2126-1 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Afghanistani |
| 1740-0 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Ahtna |
| ... | | | |

5.2 HL7 BasicConditionalityKind

Table 27: HL7 BasicConfidentialityKind

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926  A value set of HL7 Code indication the level of confidentiality an act.  Value Set Source: [http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary\_tables/infrastructure/vocabulary/vocabulary.html](http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html%20) | | | |
| Code | Code System | Code System OID | Print Name |
| N | ConfidentialityCode | urn:oid:2.16.840.1.113883.5.25 | normal |
| R | ConfidentialityCode | urn:oid:2.16.840.1.113883.5.25 | restricted |
| V | ConfidentialityCode | urn:oid:2.16.840.1.113883.5.25 | very restricted |

5.3 Language

Table 28: Language

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Language urn:oid:2.16.840.1.113883.1.11.11526  A value set of codes defined by Internet RFC 4646 (replacing RFC 3066). Please see ISO 639 language code set maintained by Library of Congress for enumeration of language codes.  Value Set Source: <http://www.loc.gov/standards/iso639-2/php/code_list.php> | | | |
| Code | Code System | Code System OID | Print Name |
| aa | Language | urn:oid:2.16.840.1.113883.6.121 | Afar |
| ab | Language | urn:oid:2.16.840.1.113883.6.121 | Abkhazian |
| ace | Language | urn:oid:2.16.840.1.113883.6.121 | Achinese |
| ach | Language | urn:oid:2.16.840.1.113883.6.121 | Acoli |
| ada | Language | urn:oid:2.16.840.1.113883.6.121 | Adangme |
| ady | Language | urn:oid:2.16.840.1.113883.6.121 | Adyghe; Adygei |
| ae | Language | urn:oid:2.16.840.1.113883.6.121 | Avestan |
| af | Language | urn:oid:2.16.840.1.113883.6.121 | Afrikaans |
| afa | Language | urn:oid:2.16.840.1.113883.6.121 | Afro-Asiatic (Other) |
| afh | Language | urn:oid:2.16.840.1.113883.6.121 | Afrihili |
| ... | | | |

5.4 Telecom Use (US Realm Header)

Table 29: Telecom Use (US Realm Header)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| HP | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | Primary home |
| HV | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | Vacation home |
| WP | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | Work place |
| MC | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | Mobile contact |

5.5 Administrative Gender (HL7 V3)

Table 30: Administrative Gender (HL7 V3)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1  Administrative Gender based upon HL7 V3 vocabulary. This value set contains only male, female and undifferentiated concepts.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| F | AdministrativeGender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | AdministrativeGender | urn:oid:2.16.840.1.113883.5.1 | Male |
| UN | AdministrativeGender | urn:oid:2.16.840.1.113883.5.1 | Undifferentiated |

5.6 Martial Status

Table 31: Marital Status

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Marital Status urn:oid:2.16.840.1.113883.1.11.12212  Marital Status is the domestic partnership status of a person.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| A | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Annulled |
| D | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Divorced |
| T | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Domestic partner |
| I | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Interlocutory |
| L | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Legally Separated |
| M | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Married |
| S | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Never Married |
| P | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Polygamous |
| W | MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Widowed |

5.7 Religious Affiliation

Table 32: Religious Affiliation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Religious Affiliation urn:oid:2.16.840.1.113883.1.11.19185  A value set of codes that reflect spiritual faith affiliation.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| 1001 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Adventist |
| 1002 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | African Religions |
| 1003 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Afro-Caribbean Religions |
| 1004 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Agnosticism |
| 1005 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Anglican |
| 1006 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Animism |
| 1007 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Atheism |
| 1008 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Babi & Baha'I faiths |
| 1009 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Baptist |
| 1010 | ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Bon |
| ... | | | |

5.8 Race Category Excluding Nulls

Table 33: Race Category Excluding Nulls

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3  Value Set Source: <https://vsac.nlm.nih.gov/> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 2028-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asian |
| 2054-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Black or African American |
| 2076-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Native Hawaiian or Other Pacific Islander |
| 2106-3 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | White |

5.9 Ethnicity

Table 34: Ethnicity

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

5.10 Personal and Legal Relationship Role Type

Table 35: Personal And Legal Relationship Role Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1  A personal or legal relationship records the role of a person in relation to another person, or a person to himself or herself. This value set is to be used when recording relationships based on personal or family ties or through legal assignment of responsibility.  Value Set Source: [http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary\_tables/infrastructure/vocabulary/vocabulary.html](http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html%20) | | | |
| Code | Code System | Code System OID | Print Name |
| SELF | RoleCode | urn:oid:2.16.840.1.113883.5.111 | self |
| MTH | RoleCode | urn:oid:2.16.840.1.113883.5.111 | mother |
| FTH | RoleCode | urn:oid:2.16.840.1.113883.5.111 | father |
| DAU | RoleCode | urn:oid:2.16.840.1.113883.5.111 | natural daughter |
| SON | RoleCode | urn:oid:2.16.840.1.113883.5.111 | natural son |
| DAUINLAW | RoleCode | urn:oid:2.16.840.1.113883.5.111 | daughter in-law |
| SONINLAW | RoleCode | urn:oid:2.16.840.1.113883.5.111 | son in-law |
| GUARD | RoleCode | urn:oid:2.16.840.1.113883.5.111 | guardian |
| HPOWATT | RoleCode | urn:oid:2.16.840.1.113883.5.111 | healthcare power of attorney |
| ... | | | |

5.11 Country

Table 36: Country

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Country urn:oid:2.16.840.1.113883.3.88.12.80.63  This identifies the codes for the representation of names of countries, territories and areas of geographical interest.  Value Set Source: <http://www.iso.org/iso/country_codes/iso_3166_code_lists.htm> | | | |
| Code | Code System | Code System OID | Print Name |
| AW | Country | urn:oid:2.16.840.1.113883.3.88.12.80.63 | Aruba |
| IL | Country | urn:oid:2.16.840.1.113883.3.88.12.80.63 | Israel |
| ... | | | |

5.12 Postal Code

Table 37: PostalCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2  A value set of postal (ZIP) Code of an address in the United States  Value Set Source: <http://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86671000> | | | |
| Code | Code System | Code System OID | Print Name |
| 19009 | USPostalCodes | urn:oid:2.16.840.1.113883.6.231 | Bryn Athyn |
| 92869-1736 | USPostalCodes | urn:oid:2.16.840.1.113883.6.231 | Orange, CA |
| 32830-8413 | USPostalCodes | urn:oid:2.16.840.1.113883.6.231 | Lake Buena Vista, FL |
| ... | | | |

5.13 LanguageAbilityMode

Table 38: LanguageAbilityMode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: LanguageAbilityMode urn:oid:2.16.840.1.113883.1.11.12249  This identifies the language ability of the individual. A value representing the method of expression of the language.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| ESGN | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed signed |
| ESP | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed spoken |
| EWR | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed written |
| RSGN | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received signed |
| RSP | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received spoken |
| RWR | LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received written |

5.14 LanguageAbilityProficiency

Table 39: LanguageAbilityProficiency

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: LanguageAbilityProficiency urn:oid:2.16.840.1.113883.1.11.12199  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| E | LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Excellent |
| F | LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Fair |
| G | LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Good |
| P | LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Poor |

5.15 Detailed Ethnicity

Table 40: Detailed Ethnicity

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877  List of detailed ethnicity codes reported on a limited basis  Value Set Source: [http://phinvads.cdc.gov/vads/ViewValueSet.action?id=34D34BBC-617F-DD11-B38D-00188B398520#](http://phinvads.cdc.gov/vads/ViewValueSet.action?id=34D34BBC-617F-DD11-B38D-00188B398520) | | | |
| Code | Code System | Code System OID | Print Name |
| 2138-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Andalusian |
| 2166-7 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Argentinean |
| 2139-4 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asturian |
| 2142-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Belearic Islander |
| 2167-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Bolivian |
| 2163-4 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Canal Zone |
| 2145-1 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Canarian |
| 2140-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Castillian |
| 2141-0 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Catalonian |
| 2155-0 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Central American |
| ... | | | |

5.16 Healthcare Provider Taxonomy (HIPPA)

Table 41: Healthcare Provider Taxonomy (HIPAA)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Healthcare Provider Taxonomy (HIPAA) urn:oid:2.16.840.1.114222.4.11.1066  The Health Care Provider Taxonomy value set is a collection of unique alphanumeric codes, ten characters in length. The code set is structured into three distinct Levels including Provider Type, Classification, and Area of Specialization. The Health Care Provider Taxonomy code set allows a single provider (individual, group, or institution) to identify their specialty category. Providers may have one or more than one value associated to them. When determining what value or values to associate with a provider, the user needs to review the requirements of the trading partner with which the value(s) are being used.  Value Set Source: <http://www.nucc.org/index.php?option=com_content&view=article&id=14&Itemid=125> | | | |
| Code | Code System | Code System OID | Print Name |
| 171100000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Acupuncturist |
| 363LA2100X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Nurse Practitioner - Acute Care |
| 364SA2100X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Clinical Nurse Specialist - Acute Care |
| 101YA0400X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Counselor - Addiction (Substance Use Disorder) |
| 103TA0400X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Psychologist - Addiction (Substance Use Disorder) |
| 163WA0400X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Registered Nurse - Addiction (Substance Use Disorder) |
| 207LA0401X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Anesthesiology - Addiction Medicine |
| 207QA0401X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Family Medicine - Addiction Medicine |
| 207RA0401X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Internal Medicine - Addiction Medicine |
| 2084A0401X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Psychiatry & Neurology - Addiction Medicine |
| ... | | | |

5.17 INDRolesclassCodes

Table 42: INDRoleclassCodes

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: INDRoleclassCodes urn:oid:2.16.840.1.113883.11.20.9.33  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| PRS | RoleClass | urn:oid:2.16.840.1.113883.5.110 | personal relationship |
| NOK | RoleClass | urn:oid:2.16.840.1.113883.5.110 | next of kin |
| CAREGIVER | RoleClass | urn:oid:2.16.840.1.113883.5.110 | caregiver |
| AGNT | RoleClass | urn:oid:2.16.840.1.113883.5.110 | agent |
| GUAR | RoleClass | urn:oid:2.16.840.1.113883.5.110 | guarantor |
| ECON | RoleClass | urn:oid:2.16.840.1.113883.5.110 | emergency contact |

5.18 x\_ServiceEventPerformer

Table 43: x\_ServiceEventPerformer

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: x\_ServiceEventPerformer urn:oid:2.16.840.1.113883.1.11.19601  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| PRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | performer |
| SPRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | secondary performer |
| PPRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | primary performer |

5.19 ParticipationFunction

Table 44: ParticipationFunction

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ParticipationFunction urn:oid:2.16.840.1.113883.1.11.10267  This HL7-defined value set can be used to specify the exact function an actor had in a service in all necessary detail.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm> | | | |
| Code | Code System | Code System OID | Print Name |
| SNRS | participationFunction | urn:oid:2.16.840.1.113883.5.88 | Scrub nurse |
| SASST | participationFunction | urn:oid:2.16.840.1.113883.5.88 | Second assistant surgeon |
| \_AuthorizedParticipationFunction | participationFunction | urn:oid:2.16.840.1.113883.5.88 | AuthorizedParticipationFunction |
| \_AuthorizedReceiverParticipationFunction | participationFunction | urn:oid:2.16.840.1.113883.5.88 | AuthorizedReceiverParticipationFunction |
| AUCG | participationFunction | urn:oid:2.16.840.1.113883.5.88 | caregiver information receiver |
| AULR | participationFunction | urn:oid:2.16.840.1.113883.5.88 | legitimate relationship information receiver |
| AUTM | participationFunction | urn:oid:2.16.840.1.113883.5.88 | care team information receiver |
| AUWA | participationFunction | urn:oid:2.16.840.1.113883.5.88 | work area information receiver |
| \_ConsenterParticipationFunction | participationFunction | urn:oid:2.16.840.1.113883.5.88 | ConsenterParticipationFunction |
| GRDCON | participationFunction | urn:oid:2.16.840.1.113883.5.88 | legal guardian consent author |
| ... | | | |

5.20 EncounterTypeCode

Table 45: EncounterTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: EncounterTypeCode urn:oid:2.16.840.1.113883.3.88.12.80.32  This value set includes only the codes of the Current Procedure and Terminology designated for Evaluation and Management (99200 – 99607) (subscription to AMA Required  Value Set Source: <http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/coding-billing-insurance.page> | | | |
| Code | Code System | Code System OID | Print Name |
| 99201 | CPT4 | urn:oid:2.16.840.1.113883.6.12 | Office or other outpatient visit (problem focused) |
| 99202 | CPT4 | urn:oid:2.16.840.1.113883.6.12 | Office or other outpatient visit (expanded problem (expanded) |
| 99203 | CPT4 | urn:oid:2.16.840.1.113883.6.12 | Office or other outpatient visit (detailed) |
| 99204 | CPT4 | urn:oid:2.16.840.1.113883.6.12 | Office or other outpatient visit (comprehensive, (comprehensive - moderate) |
| 99205 | CPT4 | urn:oid:2.16.840.1.113883.6.12 | Office or other outpatient visit (comprehensive, comprehensive-high) |
| 19681004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nursing evaluation of patient and report (procedure) |
| 207195004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | History and physical examination with evaluation and management of nursing facility patient (procedure) |
| 209099002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | History and physical examination with management of domiciliary or rest home patient (procedure) |
| 210098006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Domiciliary or rest home patient evaluation and management (procedure) |
| 225929007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Joint home visit (procedure) |
| ... | | | |

5.21 MoodCodeEvnInt

Table 46: MoodCodeEvnInt

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18  Contains moodCode EVN and INT  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| EVN | ActMood | urn:oid:2.16.840.1.113883.5.1001 | Event |
| INT | ActMood | urn:oid:2.16.840.1.113883.5.1001 | Intent |

5.22 Medication Route FDA

Table 47: Medication Route FDA

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Medication Route FDA urn:oid:2.16.840.1.113883.3.88.12.3221.8.7  Route of Administration value set is based upon FDA Drug Registration and Listing Database (FDA Orange Book) which are used in FDA Structured Product Labeling (SPL).  Value Set Source: <https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.8.7> | | | |
| Code | Code System | Code System OID | Print Name |
| C38192 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | AURICULAR (OTIC) |
| C38193 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | BUCCAL |
| C38194 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | CONJUNCTIVAL |
| C38675 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | CUTANEOUS |
| C38197 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | DENTAL |
| C38633 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | ELECTRO-OSMOSIS |
| C38205 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | ENDOCERVICAL |
| C38206 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | ENDOSINUSIAL |
| C38208 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | ENDOTRACHEAL |
| C38209 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | ENTERAL |
| ... | | | |

5.23 Body Site

Table 48: Body Site

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Body Site urn:oid:2.16.840.1.113883.3.88.12.3221.8.9  Contains values descending from the SNOMED CT® Anatomical Structure (91723000) hierarchy or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005) This indicates the anatomical site.  Value Set Source: <http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.8.9> | | | |
| Code | Code System | Code System OID | Print Name |
| 362783006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | entire medial surface of lower extremity (body structure) |
| 302539009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | entire hand (body structure) |
| 287679003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | left hip region structure (body structure) |
| 3341006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | right lung structure (body structure) |
| 87878005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | left ventricular structure (body structure) |
| 49848007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | structure of myocardium of left ventricle (body structure) |
| 38033009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | amputation stump (body structure) |
| 305005006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | 6/7 interchondral joint (body structure) |
| 28726007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | corneal structure (body structure) |
| 75324005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | 70 to 79 percent of body surface (body structure) |
| ... | | | |

5.24 UnitsOfMeasureCaseSensitive

Table 49: UnitsOfMeasureCaseSensitive

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839  The UCUM code system provides a set of structural units from which working codes are built. There is an unlimited number of possible valid UCUM codes.  Value Set Source: <http://unitsofmeasure.org/ucum.html> | | | |
| Code | Code System | Code System OID | Print Name |
| min | UCUM | urn:oid:2.16.840.1.113883.6.8 | minute |
| hour | UCUM | urn:oid:2.16.840.1.113883.6.8 | hr |
| % | UCUM | urn:oid:2.16.840.1.113883.6.8 | percent |
| cm | UCUM | urn:oid:2.16.840.1.113883.6.8 | centimeter |
| g | UCUM | urn:oid:2.16.840.1.113883.6.8 | gram |
| g/(12.h) | UCUM | urn:oid:2.16.840.1.113883.6.8 | gram per 12 hour |
| g/L | UCUM | urn:oid:2.16.840.1.113883.6.8 | gram per liter |
| mol | UCUM | urn:oid:2.16.840.1.113883.6.8 | mole |
| [IU] | UCUM | urn:oid:2.16.840.1.113883.6.8 | international unit |
| Hz | UCUM | urn:oid:2.16.840.1.113883.6.8 | Hertz |
| ... | | | |

5.25 AdministrationUnitDoseForm

Table 50: AdministrationUnitDoseForm

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30  Codes that are similar to a drug "form" but limited to those used as units when describing drug administration when the drug item is a physical form that is continuous and therefore not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc. | | | |
| Code | Code System | Code System OID | Print Name |
| C122629 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Actuation Dosing Unit |
| C25397 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Application Unit |
| C102405 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Capful Dosing Unit |
| C122631 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Dropperful Dosing Unit |
| C48501 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Inhalation Dosing Unit |
| C48491 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Metric Drop |
| C71204 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Nebule Dosing Unit |
| C65060 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Puff Dosing Unit |
| C48536 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Scoopful Dosing Unit |
| C48537 | FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 | Spray Dosing Unit |
| ... | | | |

5.26 ActStatus

Table 51: ActStatus

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ActStatus urn:oid:2.16.840.1.113883.1.11.159331  Contains the names (codes) for each of the states in the state-machine of the RIM Act class.  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| normal | ActStatus | urn:oid:2.16.840.1.113883.5.14 | normal |
| aborted | ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |
| held | ActStatus | urn:oid:2.16.840.1.113883.5.14 | held |
| new | ActStatus | urn:oid:2.16.840.1.113883.5.14 | new |
| suspended | ActStatus | urn:oid:2.16.840.1.113883.5.14 | suspended |
| nullified | ActStatus | urn:oid:2.16.840.1.113883.5.14 | nullified |
| obsolete | ActStatus | urn:oid:2.16.840.1.113883.5.14 | obsolete |

5.27 Medication Clinical Drug

Table 52: Medication Clinical Drug

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4  All prescribable medication formulations represented using either a "generic" or "brand-specific" concept. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCK (brand pack), SCDG (semantic clinical drug group), SBDG (semantic brand drug group), SCDF (semantic clinical drug form), or SBDF (semantic brand drug form).   Value set intensionally defined as a GROUPING made up of: Value Set: Medication Clinical General Drug (2.16.840.1.113883.3.88.12.80.17) (RxNorm Generic Drugs); Value Set: Medication Clinical Brand-specific Drug (2.16.840.1.113762.1.4.1010.5) (RxNorm Branded Drugs).  Value Set Source: <http://phinvads.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785> | | | |
| Code | Code System | Code System OID | Print Name |
| 978727 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | 0.2 ML Dalteparin Sodium 12500 UNT/ML Prefilled Syringe [Fragmin] |
| 827318 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | Acetaminophen 250 MG / Aspirin 250 MG / Caffeine 65 MG Oral Capsule |
| 199274 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | Aspirin 300 MG Oral Capsule |
| 362867 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | Cefotetan Injectable Solution [Cefotan] |
| ... | | | |

5.28 Clinical Substance

Table 53: Clinical Substance

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Clinical Substance urn:oid:2.16.840.1.113762.1.4.1010.2  All substances that may need to be represented in the context of health care related activities. This value set is quite broad in coverage and includes concepts that may never be needed in a health care activity event, particularly the included SNOMED CT concepts. The code system-specific value sets in this grouping value set are intended to provide broad coverage of all kinds of agents, but the expectation for use is that the chosen concept identifier for a substance should be appropriately specific and drawn from the appropriate code system as noted: prescribable medications should use RXNORM concepts, more specific drugs and chemicals should be represented using UNII concepts, and any substances not found in either of those two code systems, should use the appropriate SNOMED CT concept. This overarching grouping value set is intended to support identification of prescribable medications, foods, general substances and environmental entities.  Value set intensionally defined as a GROUPING made up of: Value Set: Medication Clinical Drug (2.16.840.1.113762.1.4.1010.4) (RxNorm generic and brand codes); Value Set: Unique Ingredient Identifier - Complete Set (2.16.840.1.113883.3.88.12.80.20) (UNII codes); Value Set: Substance Other Than Clinical Drug (2.16.840.1.113762.1.4.1010.9) (SNOMED CT codes).  Value Set Source: <https://vsac.nlm.nih.gov/> | | | |
| Code | Code System | Code System OID | Print Name |
| 369436 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | 6-Aminocaproic Acid Oral Tablet [Amicar] |
| 1116447 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | Acepromazine Oral Tablet |
| 9042592173 | Unique Ingredient Identifier (UNII) | urn:oid:2.16.840.1.113883.4.9 | ATROMEPINE |
| 7673326042 | Unique Ingredient Identifier (UNII) | urn:oid:2.16.840.1.113883.4.9 | IRINOTECAN |
| 413480003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Almond product (substance) |
| 256915001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Aluminum hydroxide absorbed plasma (substance) |
| 10020007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Biperiden hydrochloride (substance) |
| 10133003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cyclizine lactate (substance) |
| 10174003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Procarbazine hydrochloride (substance) |
| 102259006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Citrus fruit (substance) |
| ... | | | |

5.29 ProblemAct statusCode

Table 54: ProblemAct statusCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ProblemAct statusCode urn:oid:2.16.840.1.113883.11.20.9.19  A ValueSet of HL7 actStatus codes for use on the concern act  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| completed | ActStatus | urn:oid:2.16.840.1.113883.5.14 | Completed |
| aborted | ActStatus | urn:oid:2.16.840.1.113883.5.14 | Aborted |
| active | ActStatus | urn:oid:2.16.840.1.113883.5.14 | Active |
| suspended | ActStatus | urn:oid:2.16.840.1.113883.5.14 | Suspended |

5.30 Problem

Table 55: Problem

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4  A value set of SNOMED-CT codes limited to terms descending from the Clinical Findings (404684003) or Situation with Explicit Context (243796009) hierarchies.      Specific URL Pending  Value Set Source: <http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.7.4> | | | |
| Code | Code System | Code System OID | Print Name |
| 46635009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | diabetes mellitus type 1 |
| 234422006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | acute intermittent porphyria |
| 31712002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | primary biliary cirrhosis |
| 302002000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | difficulty moving |
| 15188001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | hearing loss |
| 129851009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | alteration in bowel elimination |
| 247472004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | hives |
| 39579001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | anaphylaxis |
| 274945004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | AA amyloidosis (disorder) |
| 129851009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | alteration in comfort: pain |
| ... | | | |

5.31 Problem Type

Table 56: Problem Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Problem Type urn:oid:2.16.840.1.113883.3.88.12.3221.7.2  This value set indicates the level of medical judgment used to determine the existence of a problem.  Value Set Source: <http://www.loinc.org> | | | |
| Code | Code System | Code System OID | Print Name |
| 75326-9 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Problem HL7.CCDAR2 |
| 75325-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Symptom HL7.CCDAR2 |
| 75324-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Diagnosis |
| 75321-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Clinical finding HL7.CCDAR2 |
| 75323-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Condition HL7.CCDAR2 |
| 29308-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Complaint HL7.CCDAR2 |
| 75322-8 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Functional performance HL7.CCDAR2 |
| 75275-8 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Cognitive Function HL7.CCDAR2 |
| 75318-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Problem family member HL7.CCDAR2 |
| 75319-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Symptom family member HL7.CCDAR2 |
| ... | | | |

5.32 Result Status

Table 57: Result Status

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Result Status urn:oid:2.16.840.1.113883.11.20.9.39  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| aborted | ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |
| held | ActStatus | urn:oid:2.16.840.1.113883.5.14 | held |
| suspended | ActStatus | urn:oid:2.16.840.1.113883.5.14 | suspended |

5.33 Observation Interpretation (HL7)

Table 58: Observation Interpretation (HL7)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm> | | | |
| Code | Code System | Code System OID | Print Name |
| A | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | abnormal |
| B | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | better |
| Carrier | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | carrier |
| D | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | decreased |
| HX | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | above high threshold |
| I | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | intermediate |
| IND | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | indeterminate |
| LX | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | below low threshold |
| MS | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | moderately susceptible |
| N | HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 | normal |
| ... | | | |

5.34 Social History Type

Table 59: Social History Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60  A value set of SNOMED-CT observable entity codes containing common social history observables. Though Tobacco Use and Exposure exists in this value set, it is recommended to use the Current Smoking Status template or the Tobacco Use template to represent smoking or tobacco habits.  Value Set Source: <https://vsac.nlm.nih.gov> | | | |
| Code | Code System | Code System OID | Print Name |
| 160573003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Alcohol intake (observable entity) |
| 363908000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Details of drug misuse behavior (observable entity) |
| 364703007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Employment detail (observable entity) |
| 256235009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Exercise (observable entity) |
| 228272008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Health-related behavior (observable entity) |
| 364393001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nutritional observable (observable entity) |
| 425400000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Toxic exposure status (observable entity) |
| 105421008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Educational achievement (observable entity) |
| 302160007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Household, family and support network detail (observable entity) |
| 423514004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Community resource details (observable entity) |
| ... | | | |

5.35 PostalAddressUse

Table 60: PostalAddressUse

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: PostalAddressUse urn:oid:2.16.840.1.113883.1.11.10637  A value set of HL7 Codes for address use.  Value Set Source: [http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary\_tables/infrastructure/vocabulary/vocabulary.html](http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html%20) | | | |
| Code | Code System | Code System OID | Print Name |
| BAD | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | bad address |
| CONF | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | confidential |
| DIR | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | direct |
| H | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | home address |
| HP | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | primary home |
| HV | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | vacation home |
| PHYS | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | physical visit address |
| PST | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | postal address |
| PUB | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | public |
| TMP | AddressUse | urn:oid:2.16.840.1.113883.5.1119 | temporary |
| ... | | | |

5.36 StateValueSet

Table 61: StateValueSet

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1  Identifies addresses within the United States are recorded using the FIPS 5-2 two-letter alphabetic codes for the State, District of Columbia, or an outlying area of the United States or associated area  Value Set Source: <http://www.census.gov/geo/reference/ansi_statetables.html> | | | |
| Code | Code System | Code System OID | Print Name |
| AL | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Alabama |
| AK | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Alaska |
| AZ | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Arizona |
| AR | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Arkansas |
| CA | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | California |
| CO | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Colorado |
| CT | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Connecticut |
| DE | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Delaware |
| DC | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | District of Columbia |
| FL | FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 | Florida |
| ... | | | |

5.37 EntityNameUse

Table 62: EntityNameUse

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: EntityNameUse urn:oid:2.16.840.1.113883.1.11.15913  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.htm> | | | |
| Code | Code System | Code System OID | Print Name |
| A | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Artist/Stage |
| ABC | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Alphabetic |
| ASGN | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Assigned |
| C | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | License |
| I | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Indigenous/Tribal |
| IDE | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Ideographic |
| L | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Legal |
| P | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Pseudonym |
| PHON | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Phonetic |
| R | EntityNameUse | urn:oid:2.16.840.1.113883.5.45 | Religious |
| ... | | | |

5.38 EntityPErsonNamePartQualifier

Table 63: EntityPersonNamePartQualifier

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26  Value Set Source: <http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/vocabulary.html> | | | |
| Code | Code System | Code System OID | Print Name |
| AC | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | academic |
| AD | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | adopted |
| BR | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | birth |
| CL | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | callme |
| IN | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | initial |
| NB | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | nobility |
| PR | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | professional |
| SP | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | spouse |
| TITLE | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | title |
| VV | EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 | voorvoegsel |

# **6. Code Systems in This Guide**

Table 64: Code Systems

| Name | OID |
| --- | --- |
| ActCode | urn:oid:2.16.840.1.113883.5.4 |
| ActEncounterCode | urn:oid:2.16.840.1.113883.1.11.13955 |
| ActMood | urn:oid:2.16.840.1.113883.5.1001 |
| ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| AddressUse | urn:oid:2.16.840.1.113883.5.1119 |
| AdministrativeGender | urn:oid:2.16.840.1.113883.5.1 |
| ConfidentialityCode | urn:oid:2.16.840.1.113883.5.25 |
| Country | urn:oid:2.16.840.1.113883.3.88.12.80.63 |
| CPT4 | urn:oid:2.16.840.1.113883.6.12 |
| EntityNamePartQualifier | urn:oid:2.16.840.1.113883.5.43 |
| EntityNameUse | urn:oid:2.16.840.1.113883.5.45 |
| FDA RouteOfAdministration | urn:oid:2.16.840.1.113883.3.26.1.1 |
| FIPS 5-2 (State) | urn:oid:2.16.840.1.113883.6.92 |
| Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 |
| HITSP-CS-83 | urn:oid:2.16.840.1.113883.5.83 |
| HL7 Race | urn:oid:2.16.840.1.113883.5.104 |
| HL7ActClass | urn:oid:2.16.840.1.113883.5.6 |
| HL7ActRelationshipType | urn:oid:2.16.840.1.113883.5.1002 |
| HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| ICD-10-CM | urn:oid:2.16.840.1.113883.6.90 |
| Language | urn:oid:2.16.840.1.113883.6.121 |
| LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 |
| LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| MaritalStatus | urn:oid:2.16.840.1.113883.5.2 |
| participationFunction | urn:oid:2.16.840.1.113883.5.88 |
| Participationsignature | urn:oid:2.16.840.1.113883.5.89 |
| Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 |
| ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 |
| RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| RoleCode | urn:oid:2.16.840.1.113883.5.111 |
| RxNorm | urn:oid:2.16.840.1.113883.6.88 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| UCUM | urn:oid:2.16.840.1.113883.6.8 |
| Unique Ingredient Identifier (UNII) | urn:oid:2.16.840.1.113883.4.9 |
| USPostalCodes | urn:oid:2.16.840.1.113883.6.231 |

1. Note that further bi-directional communication (e.g., a follow-up for additional information by the public health agency system) is out of scope for this use case, but may be considered by future phases of the Public Health Reporting Initiative [↑](#footnote-ref-1)