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1 INTRODUCTION

1.1 Background

The Trauma Registry Data Submission (TRDS) Clinical Document Architecture (CDA) Implementation Guide (IG) is a technical specification intended to guide software engineers involved in the development of information systems used in the submission of trauma related encounter data from participating hospitals to the United States (U.S.) National Trauma Data Bank (NTDB).

The data content of the TRDS CDA IG is based upon the National Trauma Data Standard™ (NTDS). NTDS is a concerted and sustained effort by the American College of Surgeons Committee on Trauma (ACSCOT) to provide an extensive collection of trauma registry data provided primarily by accredited/designated trauma centers across the U.S. The information requirements expressed in the NTDS have been reflected in a TRDS Domain Analysis Model (DAM) expressed as an information model utilizing the Unified Modeling Language (UML) as its syntax.

The TRDS CDA IG is expressed as a collection of constraints upon the Health Level Seven (HL7) Clinical Document Architecture standard. The HL7 CDA, an HL7 v3 standard, is itself a set of constraints upon the HL7 Reference Information Model (RIM) and its associated datatype and vocabulary specifications. The design foundation of the TRDS CDA IG is a Constrained Information Model (CIM) which blends the data requirements expressed in the TRDS DAM with HL7 RIM constraints specified in the CDA Refined Message Information Model (RMIM).

1.2 Purpose

The purpose of this specification is to serve as a guide to software engineers in implementing information systems used in creating or consuming trauma registry submission transactions constructed in compliance with the HL7 v3 CDA standard. This specification contains the CDA conformance constraints which specify required and optional trauma registry submission transaction document sections and section entries. Section and entry specifications contain
the set of in-scope classes, attributes, and relationships from the CDA refined information model.

### 1.3 Audience

The primary audience for this specification are software engineers involved with implementing information systems used in creating or consuming trauma registry submission transactions. This audience will want to ensure that this specification adequately represents a unambiguous implementable set of constraints upon the CDA XML schema and related code systems and value sets.

Secondary users of this specification include trauma registry participating entities responsible for submitting trauma data to the NTDB, trauma data registry submission recipients, and stakeholders in the NTDB data analysis capabilities. These later users will want to ensure that their information requirements have been adequately represented in this specification and is consistent with the data encoding rules specified in the NTDS.

### 1.4 Contributors

This specification was developed under the auspices of the HL7 Clinical Interoperability Council (CIC) workgroup. Subject matter expertise, support and project sponsorship was provided by the American College of Surgeons National Trauma Data Bank under the leadership of Melanie Neal, NTDB Manager and Chrystal Caden-Price, NTDB Data Analyst.

Additional guidance was provided by the National EMS Information System (NEMSIS), directed by Clay Mann. Technical insights, domain, and workflow expertise were provided by Digital Innovation, Inc. Digital Innovation provides technology, software development, and operational support of the NTDB.

Project management and vocabulary facilitation were provided by Jay Lyle and Sarah Ryan of Ockham Information Services. AbdulMalik Shakir and Salimah Shakir of Shakir Consulting are the primary authors of this specification.

Anita Walden, Co-Chair of the HL7 CIC Workgroup, served as publishing facilitator for this project. Additional support and clinical guidance was provided by other members of HL7 but especially from members of the co-
sponsoring HL7 workgroups Patient Care, Emergency Care, and Structured Documents.

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</table>

### 1.5 Scope

The scope of this specification is limited to the submission, receipt, and validation of trauma data to the NTDB in compliance with the information requirements specified in the NTDS. The specification is intended for use in the U.S. realm but may be useful outside the United States.

The in-scope data elements are specified in the NTDB Domain Analysis Model (DAM) based upon the July 2012 version of the NTDS data dictionary effective for use with 2013 trauma center admissions. NTDB quality and performance measurements are explicitly out of scope of this specification.

The data requirements specified in the NTDB DAM were mapped to the CDA RMIM and re-expressed as a Constrained Information Model (CIM) expressed in UML with classes based upon the CDA RMIM RIM class clones and attributes. The CIM is a UML expression of the document structure design, attribute and class relationship cardinalities, attribute data types, and attribute value set bindings.

NTDB CIM value sets are expressed as enumerated concepts without assigned code values. The value sets expressed in this implementation guide include the
assignment of code values for semantically equivalent code system terms from select code systems; primarily SNOMED-CT and LOINC.

1.6 Use Case Scenario

The Use Case covered by this specification is the submission of trauma data to the NTDB from participating hospitals and third parties acting on their behalf.

Submission to 3rd party registries and access to NTDB by trauma data consumers are outside the scope of this specification.

2 SPECIFICATION OVERVIEW

2.1 Organization of this specification

The CDA templates expressed in this specification are grouped according to type: Document, Section, Entry, and SubEntry. Templates are arranged alphabetically within type. Each template is presented with a template title followed by template type and object identifier (OID), and a table of hyperlinked nested and encompassing templates.

A brief description is provided for each template which is followed by a numbered list of constraints each followed by a unique conformance identifier. Where appropriate lineage to the Constrained Information Model is designated
with the prefix “CIM:” followed by the name of the CIM class which provide context for the data requirements.

The templates listed in this guide are hierarchically related starting with the document header as the root and then followed by section templates which contain Entries which may contain subentries.

Entries and subentries are reused and will appear as contained templates in one or more containing section or entry template. Template OIDs all have a common root “2.16.840.1.113883.3.2898” followed by “.10” indicating it is a template OID, and terminated with a series of digits suggesting the template hierarchy so that “.513” suggests that the referenced template is the third sub-entry in entry 1 of section 5. The CIM depicts this template hierarchy in the form of a UML class diagram.

![UML Class Diagram](image)

### 2.2 Conventions used in this implementation guide

The conformance verb keyword at the start of a constraint (SHALL, SHOULD, MAY, etc.) indicates usage conformance. SHALL is an indication that the
constraint is to be enforced without exception; SHOULD is an indication that the constraint is optional but highly recommended; and MAY is an indication that the constraint is optional and that adherence to the constraint is at the discretion of the document creator.

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

The following cardinality indicators may be interpreted as follows:

- 0..1 as contains zero or one
- 1..1 as contains exactly one
- 2..2 as contains exactly two
- 1..* as contains one or more
- 0..* as contains zero or more

Each constraint is uniquely identified (e.g., "CONF:605") by an identifier placed at or near the end of the constraint.

### 2.3 Use of vocabulary standards

Value set bindings adhere to HL7 Vocabulary Working Group best practices, and include both a conformance verb (SHALL, SHOULD, MAY, etc.) and an indication of DYNAMIC vs. STATIC binding. The use of SHALL requires that the component be valued with a member from the cited value set; however, in every case any HL7 "null" value such as other (OTH) or unknown (UNK) may be used. STATIC binding means that the allowed values of the value set do not change automatically as new values are added to a value set. That is, the binding is to a single version of a value set. DYNAMIC binding means that the intent is to have the allowed values for a coded item automatically change (expand or contract) as the value set is maintained over time.

Vocabulary bindings are specified as a reference to the value set name followed by the value set OID; for example:
This observation **SHALL** contain exactly one \([1..1]\) **value** with
@xsi:type="CD", where the @code **SHALL** be selected from ValueSet
Industry 2.16.840.1.113883.3.2898.11.1 (CONF:29613).

Value sets specifications are included in section 7 entitled “Value Sets In This
Guide”. Each value set includes a value set member list including the code,
code system name, and print name for each member of the value set. The name
of the value set, along with its OID is included in the table header; for example:

**Table 1: Administrative Gender Excluding Nulls**

<table>
<thead>
<tr>
<th>Code</th>
<th>Code System</th>
<th>Print Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>SCT</td>
<td>Female</td>
</tr>
<tr>
<td>M</td>
<td>SCT</td>
<td>Male</td>
</tr>
</tbody>
</table>

Some value sets are not fully enumerated. This guide includes no more than 20
value set members per value set. Value sets which draw upon proprietary code
systems are included in this guide, however, their value set members are not
enumerated unless the code system owner explicitly allows its inclusion in a
publicly available specification.

All observation.code elements will use LOINC as their defining code system. The
required codes have been requested but have not been received as of the time of
this publication. Once obtained, they will be reflected in this guide. In the
meantime the codes are designated as “TBD”, to be determined.
3 DOCUMENT

3.1 Trauma Registry Submission Document

[ClinicalDocument: templateId 2.16.840.1.113883.3.2898.10.1 (closed)]

The Trauma Registry Submission Document (TRSD) is a collection of injury event, episode of care encounter, and clinical observations submitted to the National Trauma Data Bank by participating Hospitals or their agents for inclusion in the trauma registry.

CIM: TraumaRegistrySubmissionDocument

1. **SHALL** contain exactly one [1..1] @classCode="DOCCLIN" (CONF:28347).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:28348).
3. **MAY** contain zero or more [0..*] realmCode (CONF:27764).
   Note: This document specification is limited to the US realm only. It may be used outside the US realm, however, the user should be aware that data requirements outside the US realm were not considered when defining this specification.
4. **SHALL** contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.1" (CONF:27766).
   a. This templateId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.3.2898.10.1" (CONF:27786).
   b. This templateId **MAY** contain zero or one [0..1] @extension (CONF:30470).
5. **SHALL** contain exactly one [1..1] id (CONF:27767).
7. **MAY** contain zero or one [0..1] title="Trauma Data Submission Document" (CONF:27795).
8. **SHALL** contain exactly one [1..1] effectiveTime (CONF:27769).

CIM: RecordTarget

9. **SHALL** contain exactly one [1..1] recordTarget (CONF:27770).
   a. This recordTarget **SHALL** contain exactly one [1..1] @typeCode="RCT" (CONF:29021).
   b. This recordTarget **SHALL** contain exactly one [1..1] @contextControlCode="OP" (CONF:29022).

CIM: PatientRole

   c. This recordTarget **SHALL** contain exactly one [1..1] patientRole (CONF:27771).
      i. This patientRole **SHALL** contain exactly one [1..1] @classCode="PAT" (CONF:29023).
      ii. This patientRole **SHALL** contain at least one [1..*] id (CONF:27772).
iii. This patientRole **SHOULD** contain zero or one [0..1] `addr` (CONF:27773).

CIM: Patient

iv. This patientRole **SHALL** contain exactly one [1..1] `patient` (CONF:27774).

1. This patient **SHALL** contain exactly one [1..1] @classCode="PSN" (CONF:29024).
2. This patient **SHALL** contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:29025).
3. This patient **SHOULD** contain zero or one [0..1] `administrativeGenderCode`, which **SHALL** be selected from ValueSet *Administrative Gender Excluding Nulls* 2.16.840.1.113883.3.2074.1.1.5 (CONF:27775).
4. This patient **SHOULD** contain zero or one [0..1] `birthTime` (CONF:27776).
5. This patient **SHOULD** contain zero or one [0..1] `ethnicGroupCode`, which **SHALL** be selected from ValueSet *NHSNEthnicityGroup* 2.16.840.1.114222.4.11.837 (CONF:27778).

10. **SHALL** contain exactly one [1..1] `author` (CONF:30524).

   Note: The Author of the Trauma submission document is typically the participating facility, although there are occasions when the participating facility will share its information with a third party that authors the document on its behalf. In all cases the organization represented by the person or device participating as author is the participating facility in which the trauma case occurred.

   a. This author **SHALL** contain exactly one [1..1] @typeCode="AUT" (CONF:30525).
   b. This author **SHALL** contain exactly one [1..1] @contextControlCode="OP" (CONF:30526).
   c. This author **SHALL** contain exactly one [1..1] `assignedAuthor` (CONF:30527).

      i. This assignedAuthor **SHALL** contain exactly one [1..1] @classCode="ASSIGNED" (CONF:30528).
      ii. This assignedAuthor **SHALL** contain exactly one [1..1] `representedOrganization` (CONF:30529).

         1. This representedOrganization **SHALL** contain exactly one [1..1] @classCode="ORG" (CONF:30530).
         2. This representedOrganization **SHALL** contain exactly one [1..1] @determinerCode="INSTANCE" (CONF:30531).
         3. This representedOrganization **SHALL** contain exactly one [1..1] `id` (CONF:30532).

Note: The identifier assigned to the participating facility by the NTDB.
11. **SHALL** contain exactly one [1..1] custodian (CONF:30533).
   a. This custodian **SHALL** contain exactly one [1..1] \[typeCode="CST"\] (CONF:30534).
   b. This custodian **SHALL** contain exactly one [1..1] assignedCustodian (CONF:30535).
      i. This assignedCustodian **SHALL** contain exactly one [1..1] \[classCode="ASSIGNED"\] (CONF:30536).
      ii. This assignedCustodian **SHALL** contain exactly one [1..1] representedCustodianOrganization (CONF:30537).
         1. This representedCustodianOrganization **SHALL** contain exactly one [1..1] \[classCode="ORG"\] (CONF:30538).
         2. This representedCustodianOrganization **SHALL** contain exactly one [1..1] \[determinerCode="INSTANCE"\] (CONF:30539).
         3. This representedCustodianOrganization **SHALL** contain exactly one [1..1] id (CONF:30540).
         Note: The identifier assigned to the participating facility by the NTDB.

   CIM: StructuredBodyComponent

12. **SHALL** contain exactly one [1..1] component (CONF:27784).
   a. This component **SHALL** contain exactly one [1..1] \[typeCode="COMP"\] (CONF:29031).
   b. This component **SHALL** contain exactly one [1..1] \[contextConductionInd="true"\] (CONF:29032).

   CIM: StructuredBody

   c. This component **SHALL** contain exactly one [1..1] structuredBody (CONF:27785).
      i. This structuredBody **SHALL** contain exactly one [1..1] \[classCode="DOCBODY"\] (CONF:29033).
      ii. This structuredBody **SHALL** contain exactly one [1..1] \[moodCode="EVN"\] (CONF:29034).

   CIM: StructuredBodyPatientDetailComponent

   iii. This structuredBody **SHALL** contain exactly one [1..1] component (CONF:27793) such that it
       1. **SHALL** contain exactly one [1..1] \[typeCode="COMP"\] (CONF:28191).
       2. **SHALL** contain exactly one [1..1] \[contextConductionInd="true"\] (CONF:28192).
       3. **SHALL** contain exactly one [1..1] Patient Detail Section
          \(\text{templateId:2.16.840.1.113883.3.2898.10.2}\) (CONF:27855).

   CIM: StructuredBodyInjuryEventComponent
iv. This structuredBody **SHALL** contain exactly one [1..1] component (CONF:28349) such that it
   1. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:28350).
   2. **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:28351).
   3. **SHALL** contain exactly one [1..1] Injury Event Section (templateId:2.16.840.1.113883.3.2898.10.5) (CONF:28352).

CIM: StructuredBodyPreHospitalEncounterComponent

v. This structuredBody **SHOULD** contain zero or one [0..1] component (CONF:28353) such that it
   1. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:28354).
   2. **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:28355).
   3. **SHALL** contain exactly one [1..1] PreHospital Encounter Section (templateId:2.16.840.1.113883.3.2898.10.7) (CONF:28356).

CIM: StructuredBodyHospitalCareEpisodeComponent

vi. This structuredBody **SHALL** contain exactly one [1..1] component (CONF:28357) such that it
   1. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:28358).
   2. **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:28359).
   3. **SHALL** contain exactly one [1..1] Hospital Care Episode Section (templateId:2.16.840.1.113883.3.2898.10.8) (CONF:28360).
4 SECTION

4.1 Hospital Care Episode Section
[section: templateId 2.16.840.1.113883.3.2898.10.8 (closed)]

This section includes information pertaining to hospital emergency room and inpatient encounters associated with the trauma event.

13. SHALL contain exactly one [1..1] @classCode="DOCSECT" (CONF:30442).
14. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30443).
15. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8" (CONF:30444).
17. SHALL contain exactly one [1..1] entry (CONF:30205).
   a. This entry SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30206).
   b. This entry SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30207).

CIM: HospitalCareEpisodeEncounter

   c. This entry SHALL contain exactly one [1..1] Hospital Care Episode Encounter (templateId:2.16.840.1.113883.3.2898.10.81) (CONF:30208).

4.2 Injury Event Section
[section: templateId 2.16.840.1.113883.3.2898.10.5 (closed)]

This section of the Trauma Registry Data Submission document contain information pertaining to the injury event the patient experienced that resulted in trauma related encounter(s).

18. SHALL contain exactly one [1..1] @classCode="DOCSECT" (CONF:28194).
19. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:28195).
20. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.5" (CONF:28196).
   a. This templateId SHALL contain zero or one [0..1] @root="2.16.840.1.113883.3.2898.10.5" (CONF:28202).
22. SHALL contain at least one [1..*] Injury Event Detail Entry (templateId:2.16.840.1.113883.3.2898.10.23) (CONF:28199).
4.3 Patient Detail Section
[section: templateId 2.16.840.1.113883.3.2898.10.2 (closed)]

This section contains patient details not specified as attributes of the "Person" entity playing the role of "Patient", the record target of the Trauma Registry Data Submission document.

23. SHALL contain exactly one [1..1] @classCode="DOCSECT" (CONF:27790).
24. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:27791).
25. SHALL contain exactly one [1..1] 
   templateId="2.16.840.1.113883.3.2898.10.2" (CONF:27787).
   a. This templateId SHALL contain exactly one [1..1] 
      @root="2.16.840.1.113883.3.2898.10.2" (CONF:27788).
27. SHALL contain exactly one [1..1] entry (CONF:27853) such that it
   a. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30459).
   b. SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30460).

CIM: PatientEmploymentObservation
   c. SHALL contain exactly one [1..1] Patient Employment Observation Organizer Entry 
      (templateId:2.16.840.1.113883.3.2898.10.21) (CONF:29600).
28. SHALL contain exactly one [1..1] entry (CONF:27854) such that it
   a. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30461).
   b. SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30462).

CIM: PatientDemographicObservation
   c. SHALL contain exactly one [1..1] Patient Demographic Observations Organizer Entry 
      (templateId:2.16.840.1.113883.3.2898.10.22) (CONF:29601).

4.4 PreHospital Encounter Section
[section: templateId 2.16.840.1.113883.3.2898.10.7 (closed)]

This section includes information related to optional pre-hospital encounters including field observations and treatments.

29. SHALL contain exactly one [1..1] @classCode="DOCSECT" (CONF:30471).
30. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30472).
31. SHALL contain exactly one [1..1] 
    templateId="2.16.840.1.113883.3.2898.10.7" (CONF:30463).
32. SHALL contain exactly one [1..1] code="74207-2" Prehospital summary 

CIM: PreHospitalEncounterEntry
33. **SHOULD** contain at least one [1..*] entry (CONF:29232).
   a. Such entries **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:29233).
   b. Such entries **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:29234).

CIM: PrehospitalEncounter

   c. Such entries **SHALL** contain exactly one [1..1] **PreHospital Encounter Entry**
      (templateId:2.16.840.1.113883.3.2898.10.31) (CONF:30495).
5  ENTRY

5.1 Hospital Care Episode Encounter

This Encounter template contains content pertaining to the hospital care episode, including emergency hospital encounter, inpatient hospital encounter, and hospital care episode observations.

34. SHALL contain exactly one [1..1] @classCode="ENC" (CONF:30338).
35. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30339).
36. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.81" (CONF:30453).
37. SHALL contain exactly one [1..1] effectiveTime (CONF:30341).
38. SHOULD contain zero or one [0..1] entryRelationship (CONF:30209).
   a. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30332).
   b. The entryRelationship, if present, SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30333).

CIM: EmergencyHospitalEncounter
   c. The entryRelationship, if present, SHALL contain exactly one [1..1] Emergency Hospital Encounter
      (templateId:2.16.840.1.113883.3.2898.10.811) (CONF:30210).
39. SHOULD contain zero or one [0..1] entryRelationship (CONF:30211).
   a. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30334).
   b. The entryRelationship, if present, SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30335).

CIM: InpatientHospitalEncounter
   c. The entryRelationship, if present, SHALL contain exactly one [1..1] Inpatient Hospital Encounter
      (templateId:2.16.840.1.113883.3.2898.10.812) (CONF:30212).
40. SHALL contain at least one [1..*] entryRelationship (CONF:30213).
   a. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30336).
   b. Such entryRelationships SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30337).

CIM: HospitalCareEpisodeObservationOrganizer
   c. Such entryRelationships SHALL contain exactly one [1..1] Hospital Care Observation Organizer
      (templateId:2.16.840.1.113883.3.2898.10.813) (CONF:30214).
5.2 Injury Event Detail Entry

This entry template contains observations pertaining to the trauma injury event, its severity, location, and causes.

41. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:28203).
42. SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:28204).
43. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.23" (CONF:28205).
   a. This templateId SHALL contain zero or one [0..1] @root="2.16.840.1.113883.3.2898.10.6" (CONF:28206).

CIM: InjuryEvent

44. SHALL contain exactly one [1..1] observation (CONF:30009).
   a. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30010).
   b. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30011).
   c. This observation SHALL contain exactly one [1..1] code="TBD" Injury Event (CONF:30012).

CIM: InjuryEvent.effectiveTime

   d. This observation SHALL contain exactly one [1..1] value with @xsi:type="TS" (CONF:30013).
   e. This observation SHOULD contain zero or more [0..*] entryRelationship (CONF:30038).
      i. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30039).
      ii. The entryRelationship, if present, SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30040).
      iii. The entryRelationship, if present, SHALL contain at least one [1..*] Trauma Injury Severity Organizer Entry
         (templateId:2.16.840.1.113883.3.2898.10.211) (CONF:30041).
   f. This observation SHOULD contain zero or more [0..*] entryRelationship (CONF:30042).
      i. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30072).
      ii. The entryRelationship, if present, SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30073).
      iii. The entryRelationship, if present, SHALL contain exactly one [1..1] Injury Cause Observation Organizer
         (templateId:2.16.840.1.113883.3.2898.10.212) (CONF:30074).
   g. This observation SHALL contain exactly one [1..1] entryRelationship (CONF:30043).
i. This entryRelationship SHALL contain exactly one [1..1] 
   @typeCode="COMP" (CONF:30445).

ii. This entryRelationship SHALL contain exactly one [1..1] 
    @contextConductionInd="true" (CONF:30446).

iii. This entryRelationship SHALL contain exactly one [1..1] Injury Event Location Organizer
    (templateId:2.16.840.1.113883.3.2898.10.213) (CONF:30162).

h. This observation SHALL contain exactly one [1..1] entryRelationship
   (CONF:30044).

i. This entryRelationship SHALL contain exactly one [1..1] 
   @typeCode="COMP" (CONF:30163).

ii. This entryRelationship SHALL contain exactly one [1..1] 
    @contextConductionInd="true" (CONF:30164).

CIM: SeverityObservationEntry

iii. This entryRelationship SHALL contain exactly one [1..1] 
    observation (CONF:30165).

   1. This observation SHALL contain exactly one [1..1] 
      @classCode="OBS" (CONF:30166).

   2. This observation SHALL contain exactly one [1..1] 
      @moodCode="EVN" (CONF:30167).

   3. This observation SHALL contain exactly one [1..1] 

   4. This observation SHALL contain exactly one [1..1] 
      value with @xsi:type="INT" (CONF:30169).

i. This observation SHALL contain exactly one [1..1] entryRelationship
   (CONF:30045).

   i. This entryRelationship SHALL contain exactly one [1..1] 
      @typeCode="COMP" (CONF:30159).

   ii. This entryRelationship SHALL contain exactly one [1..1] 
      @contextConductionInd="true" (CONF:30160).

   iii. This entryRelationship SHALL contain exactly one [1..1] Safety Equipment Observation Organizer
        (templateId:2.16.840.1.113883.3.2898.10.215) (CONF:30161).

5.3 Patient Demographic Observations Organizer Entry
[organizer: templateId 2.16.840.1.113883.3.2898.10.22 (closed)]

This entry template is an organizer for demographic observations about the patient such as age and residence status at the time of the trauma event.

45. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:29991).

46. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:29992).

47. SHALL contain exactly one [1..1] 
    templateId="2.16.840.1.113883.3.2898.10.22" (CONF:30454).
48. SHALL contain exactly one [1..1] component (CONF:29993).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:29994).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:29995).

CIM: PatientResidenceStatusObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:29996).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:29997).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:29998).
   iii. This observation SHALL contain exactly one [1..1] code="74283-3" Residence Status (CONF:29999).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet ResidenceStatus 2.16.840.1.113883.3.2898.11.3 (CONF:30000).

49. SHALL contain exactly one [1..1] component (CONF:30001).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30002).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30003).

CIM: PatientAgeObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30004).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30005).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30006).
   iii. This observation SHALL contain exactly one [1..1] code="TBD" Age (CONF:30007).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:30008).
      1. This value SHALL contain exactly one [1..1] @unit, which SHALL be selected from ValueSet AgePQ_UCUM 2.16.840.1.113883.11.20.9.21 (CONF:30455).

50. SHALL contain exactly one [1..1] component (CONF:30501).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30502).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30503).

CIM: Patient.raceCode
c. This component **SHALL** contain at least one and not more than 2 observation (CONF:30504).
   i. **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30505).
   ii. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30506).
   iii. **SHALL** contain exactly one [1..1] code="TBD" Race
   iv. **MAY** contain zero or more [0..*] value with @xsi:type="CD",
       where the code **SHALL** be selected from ValueSet Race
       Category Excluding Nulls
       2.16.840.1.113883.3.2074.1.1.3 (CONF:30508).

5.4 **Patient Employment Observation Organizer Entry**

   [organizer: templateId 2.16.840.1.113883.3.2898.10.21 (closed)]

This entry template is an organizer for observations pertaining to employment of a patient, such as occupation and industry.

51. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:29602).
52. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:29603).
53. **SHALL** contain exactly one [1..1]
        templateId="2.16.840.1.113883.3.2898.10.21" (CONF:30456).
54. **SHALL** contain exactly one [1..1] component (CONF:29604).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP"
      (CONF:29608).
   b. This component **SHALL** contain exactly one [1..1]
      @contextConductionInd="true" (CONF:29609).

CIM: PatientIndustryObservation

c. This component **SHALL** contain exactly one [1..1] observation
   (CONF:29605).
   i. This observation **SHALL** contain exactly one [1..1]
      @classCode="OBS" (CONF:29610).
   ii. This observation **SHALL** contain exactly one [1..1]
       @moodCode="EVN" (CONF:29611).
   iii. This observation **SHALL** contain exactly one [1..1]
        code="74288-2" Industry (CodeSystem: LOINC
        2.16.840.1.113883.6.1) (CONF:29612).
   iv. This observation **SHALL** contain exactly one [1..1] value with
       @xsi:type="CD", where the code **SHALL** be selected from ValueSet Industry
       2.16.840.1.113883.3.2898.11.1 (CONF:29613).
55. **SHALL** contain exactly one [1..1] component (CONF:29606).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP"
      (CONF:29617).
b. This component **SHALL** contain exactly one [1..1] 
@contextConductionInd="true" (CONF:29618).

CIM: PatientOccupationObservation

c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:29607).
   
   i. This observation **SHALL** contain exactly one [1..1] 
      @classCode="OBS" (CONF:29614).
   
   ii. This observation **SHALL** contain exactly one [1..1] 
      @moodCode="EVN" (CONF:29615).
   
   iii. This observation **SHALL** contain exactly one [1..1] 
   
   iv. This observation **SHALL** contain exactly one [1..1] **value** with 
       @xsi:type="CD", where the code **SHALL** be selected from ValueSet Occupation 2.16.840.1.113883.3.2898.11.2 
       (CONF:29616).

### 5.5 PreHospital Encounter Entry

[encounter: templateId 2.16.840.1.113883.3.2898.10.31 (closed)]

This entry template contains details of encounters and observations made in the field prior to and included transportation to the trauma event hospital encounter.

56. **SHALL** contain exactly one [1..1] @classCode="ENC" (CONF:30473).

57. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30474).

58. **SHALL** contain exactly one [1..1] 
    templateId="2.16.840.1.113883.3.2898.10.31" (CONF:30458).

59. **SHALL** contain exactly one [1..1] code="FLD" (CONF:30475).

60. **SHALL** contain exactly one [1..1] effectiveTime (CONF:30476).

CIM: PrehospitalEncounter.arrivalDateTime

   a. This effectiveTime **SHALL** contain exactly one [1..1] **low** 
      (CONF:30477).

CIM: PrehospitalEncounter.departureDateTime

   b. This effectiveTime **SHALL** contain exactly one [1..1] **high** 
      (CONF:30478).

61. **SHALL** contain exactly one [1..1] entryRelationship (CONF:30479).

   a. This entryRelationship **SHALL** contain exactly one [1..1] 
      @typeCode="COMP" (CONF:30480).

   b. This entryRelationship **SHALL** contain exactly one [1..1] 
      @contextConductionInd="true" (CONF:30481).

CIM: CirculatorySystemObservationOrganizer

   c. This entryRelationship **SHALL** contain exactly one [1..1] Circulatory 
      System Observation Organizer
62. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:30483).
   a. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@typeCode` = "COMP" (CONF:30484).
   b. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@contextConductionInd` = "true" (CONF:30485).

CIM: RespiratorySystemObservationOrganizer
   c. This `entryRelationship` **SHALL** contain exactly one [1..1] Respiratory System Observation Organizer Entry
      (templateId:2.16.840.1.113.883.3.2898.10.411) (CONF:30486).

63. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:30487).
   a. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@typeCode` = "COMP" (CONF:30488).
   b. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@contextConductionInd` = "true" (CONF:30489).

CIM: NervousSystemObservationOrganizer
   c. This `entryRelationship` **SHALL** contain exactly one [1..1] Nervous System Observation Organizer Entry
      (templateId:2.16.840.1.113.883.3.2898.10.511) (CONF:30490).

64. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:30491).
   a. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@typeCode` = "COMP" (CONF:30492).
   b. This `entryRelationship` **SHALL** contain exactly one [1..1]
      `@contextConductionInd` = "true" (CONF:30493).

CIM: TransportationObservationOrganizer
   c. This `entryRelationship` **SHALL** contain exactly one [1..1] Transportation Observation Organizer
      (templateId:2.16.840.1.113.883.3.2898.10.611) (CONF:30494).
6 SUBENTRY

6.1 Circulatory System Observation Organizer

[organizer: templateId 2.16.840.1.113.883.3.2898.10.311 (closed)]

This sub-entry template is an organizer for observations pertaining to the circulatory system of a patient, such as heart rate and systolic blood pressure.

65. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:29626).
66. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:29627).
67. SHALL contain exactly one [1..1]

   templateId="2.16.840.1.113.883.3.2898.10.311" (CONF:30464).

CIM: CirculatorySystemHeartRateComponent

68. SHALL contain exactly one [1..1] component (CONF:29628).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:29642).
   b. This component SHALL contain exactly one [1..1]

      @contextConductionInd="true" (CONF:29643).

CIM: HeartRateObservation

   c. This component SHALL contain exactly one [1..1] observation (CONF:29629).
      i. This observation SHALL contain exactly one [1..1]

         @classCode="OBS" (CONF:29630).
      ii. This observation SHALL contain exactly one [1..1]

         @moodCode="EVN" (CONF:29631).
      iii. This observation SHALL contain exactly one [1..1]

         code="8893-0" Heart Rate (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:29632).
      iv. This observation SHALL contain exactly one [1..1] value with

         @xsi:type="PQ" (CONF:29633).
            1. This value SHALL contain exactly one [1..1]

               @unit="/min" (CONF:30522).

CIM: CirculatorySystemSystolicBloodPressureComponent

69. SHALL contain exactly one [1..1] component (CONF:29634).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:29644).
   b. This component SHALL contain exactly one [1..1]

      @contextConductionInd="true" (CONF:29645).

CIM: SystolicBloodPressureObservation

   c. This component SHALL contain exactly one [1..1] observation (CONF:29635).
      i. This observation SHALL contain exactly one [1..1]

         @classCode="OBS" (CONF:29636).
ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:29637).

iii. This observation SHALL contain exactly one [1..1] code="8480-6" SystolicBloodPressure (CodeSystem: LOINC 2.16.840.1.113883.6.1 STATIC) (CONF:29638).

iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:29639).
   1. This value SHALL contain exactly one [1..1] @unit="mm[Hg]" (CONF:30523).

6.2 Emergency Hospital Encounter
[encounter: templateId 2.16.840.1.113883.3.2898.10.811 (closed)]

This template captures emergency hospital encounter content about a patient.

70. SHALL contain exactly one [1..1] @classCode="ENC" (CONF:30269).
71. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30270).
72. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.811" (CONF:30465).
73. SHALL contain exactly one [1..1] code="EMER" (CONF:30271).
74. SHALL contain exactly one [1..1] effectiveTime (CONF:30272).

CIM: EmergencyHospitalEncounterObservation

75. SHALL contain at least one [1..*] entryRelationship (CONF:30215).
   a. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30273).
   b. Such entryRelationships SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30274).

CIM: EmergencyHospitalEncounterObservation

   c. Such entryRelationships SHALL contain at least one [1..*] EmergencyHospitalObservation Organizer (templateId:2.16.840.1.113883.3.2898.10.8111) (CONF:30216).

CIM: EmergencyHospitalPhysiologicalObservation

76. SHOULD contain zero or more [0..*] entryRelationship (CONF:30217).
   a. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30275).
   b. The entryRelationship, if present, SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30276).

CIM: EmergencyHospitalPhysiologicalObservation

   c. The entryRelationship, if present, SHOULD contain zero or more [0..*] EmergencyHospitalSocialHistoryObservation Organizer (templateId:2.16.840.1.113883.3.2898.10.8112) (CONF:30218).
6.3 Emergency Hospital Observation Organizer

This template captures emergency hospital observations.

77. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30342).

78. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30343).

79. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8111" (CONF:30466).

80. SHALL contain exactly one [1..1] component (CONF:30231).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30328).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30329).

CIM: DischargeDispositionObservation
   c. This component SHALL contain exactly one [1..1] observation (CONF:30232).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30344).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30345).
      iii. This observation SHALL contain exactly one [1..1] code="TBD" Discharge Disposition (CONF:30346).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet HospitalEmergencyDischargeDispositionKind 2.16.840.1.113883.3.2898.11.14 (CONF:30347).

81. SHALL contain exactly one [1..1] component (CONF:30233).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30330).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30331).

CIM: ArrivalLifeSignsObservation
   c. This component SHALL contain exactly one [1..1] observation (CONF:30234).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30348).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30349).
      iii. This observation SHALL contain exactly one [1..1] code="74203-1" Arrival Life Signs (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30350).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="BL" (CONF:30351).
6.4 Emergency Hospital Social History Observation Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.8112 (closed)]

This template captures emergency hospital social history observations.

82. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30352).
83. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30353).
84. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8112" (CONF:30467).
85. SHALL contain exactly one [1..1] component (CONF:30235).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30323).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30324).

CIM: DrugUseObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30236).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30354).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30355).
   iii. This observation SHALL contain exactly one [1..1] code="74204-9" Drug Use (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30356).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet DrugUseKind 2.16.840.1.113883.3.2898.10.8112 (CONF:30357).
86. SHALL contain exactly one [1..1] component (CONF:30237).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30325).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30326).

CIM: AlcoholUseObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30237).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30358).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30359).
   iii. This observation SHALL contain exactly one [1..1] code="74205-6" Alcohol Use (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30360).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from
6.5 Hospital Care Episode Observation Organizer

This template captures hospital care observations about a patient such as co-morbid conditions, injury diagnosis, payment methods, delivery transportation method, and inter-facility transfer methods for the patient.

87. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30389).
88. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30390).
89. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8131" (CONF:30468).
90. SHALL contain exactly one [1..1] component (CONF:30247).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30291).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30292).

CIM: CoMorbidConditionsObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30248).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30391).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30392).
   iii. This observation SHALL contain exactly one [1..1] code="74291-6" CoMorbid Condition (CodeSystem: LOINC 2.16.840.1.113883.6.1 STATIC) (CONF:30393).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet CoMorbidConditionsKind 2.16.840.1.113883.3.2898.11.12 (CONF:30385).

91. SHALL contain exactly one [1..1] component (CONF:30249).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30293).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30294).

CIM: InjuryDiagnosisObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30250).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30394).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30395).
iii. This observation SHALL contain exactly one [1..1] code="52797-8" Injury Diagnosis (CodeSystem: LOINC 2.16.840.1.113883.6.1 STATIC) (CONF:30396).

iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:30397). Note: Value Set definition still pending at the time of publication.

92. SHALL contain exactly one [1..1] component (CONF:30251).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30295).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30296).

CIM: PaymentMethodObservation

   c. This component SHALL contain exactly one [1..1] observation (CONF:30252).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30398).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30399).
      iii. This observation SHALL contain exactly one [1..1] code="74202-3" PaymentMethod (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30400).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet PaymentMethodKind 2.16.840.1.113883.3.2898.11.16 (CONF:30401).

93. SHALL contain exactly one [1..1] component (CONF:30253).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30297).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30298).

CIM: DeliveryTransportationMethodObservation

   c. This component SHALL contain exactly one [1..1] Transportation Method Observation (templateId:2.16.840.1.113.883.3.2898.10.6111) (CONF:30254).

94. SHALL contain exactly one [1..1] component (CONF:30255).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30299).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30300).

CIM: InterFacilityTransferObservation

   c. This component SHALL contain exactly one [1..1] observation (CONF:30256).
This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30406).

ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30407).

iii. This observation SHALL contain exactly one [1..1] code="74199-1" InterFacilityTransfer (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30408).

iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:30409).
   Note: Value Set definition still pending at the time of publication.

6.6 Hospital Care Observation Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.813 (closed)]

This template captures hospital care observations about a patient.

95. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30410).

96. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30411).

97. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.813" (CONF:30469).

CIM: HospitalCareEpisodeObservation

98. SHALL contain exactly one [1..1] component (CONF:30221).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30311).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30312).

CIM: HospitalCareEpisodeObservation

   c. This component SHALL contain exactly one [1..1] Hospital Care Episode Observation Organizer (templateId:2.16.840.1.113883.3.2898.10.8131) (CONF:30222).

CIM: NervousSystemObservation

99. SHALL contain exactly one [1..1] component (CONF:30223).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30313).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30314).

CIM: NervousSystemObservation

   c. This component SHALL contain exactly one [1..1] Nervous System Observation Organizer (templateId:2.16.840.1.113883.3.2898.10.8132) (CONF:30224).

CIM: HospitalCarePhysiologicalObservation
100. **SHALL** contain exactly one [1..1] component (CONF:30225).
    a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30315).
    b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30316).

CIM: HospitalCarePhysiologicalObservation

c. This component **SHALL** contain exactly one [1..1] Hospital Care Physiological Observation (templateId:2.16.840.1.113883.3.2898.10.8133) (CONF:30226).

CIM: HospitalCarePhysiologicalObservation

101. **SHALL** contain exactly one [1..1] component (CONF:30497).
    a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30499).
    b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30500).

CIM: RespiratorySystemObservation

c. This component **SHALL** contain exactly one [1..1] Respiratory System Organizer (templateId:2.16.840.1.113883.3.2898.10.8134) (CONF:30498).

6.7 **Hospital Care Physiological Observation**

[organizer: templateId 2.16.840.1.113883.3.2898.10.8133 (closed)]

This template captures hospital care observations about a patient such as height, weight, and temperature.

102. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:30418).

103. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30419).

104. **SHALL** contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8133" (CONF:30509).

105. **SHALL** contain exactly one [1..1] component (CONF:30259).
    a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30317).
    b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30318).

CIM: HeightObservation

c. This component **SHALL** contain exactly one [1..1] observation (CONF:30260).
    i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30420).
    ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30421).
iii. This observation SHALL contain exactly one [1..1] code="TBD" Height (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30422).

iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:30423).

106. SHALL contain exactly one [1..1] component (CONF:30261).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30319).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30320).

CIM: WeightObservation
   c. This component SHALL contain exactly one [1..1] observation (CONF:30262).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30424).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30425).
      iii. This observation SHALL contain exactly one [1..1] code="TBD" Weight (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30426).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:30427).

107. SHALL contain exactly one [1..1] component (CONF:30263).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30321).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30322).

CIM: TemperatureObservation
   c. This component SHALL contain exactly one [1..1] observation (CONF:30264).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30428).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30429).
      iii. This observation SHALL contain exactly one [1..1] code="8310-5" Temperature (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30430).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:30431).
6.8 **Injury Cause Observation Organizer**

This sub-entry template is an organizer for observations pertaining to the primary and supplemental causes of the trauma injury and an indication as to whether the injury is work related.

108. **SHALL** contain exactly one [1..1] `@classCode`="CLUSTER" (CONF:30046).

109. **SHALL** contain exactly one [1..1] `@moodCode`="EVN" (CONF:30047).

110. **SHALL** contain exactly one [1..1] `templateId`="2.16.840.1.113883.3.2898.10.212" (CONF:30510).

111. **SHALL** contain exactly one [1..1] `component` (CONF:30048).

   a. This component **SHALL** contain exactly one [1..1] `@typeCode`="COMP" (CONF:30049).

   b. This component **SHALL** contain exactly one [1..1] `@contextConductionInd`="true" (CONF:30050).

**CIM: PrimaryInjuryCauseObservation**

   c. This component **SHALL** contain exactly one [1..1] `observation` (CONF:30051).

      i. This observation **SHALL** contain exactly one [1..1] `@classCode`="OBS" (CONF:30052).

      ii. This observation **SHALL** contain exactly one [1..1] `@moodCode`="EVN" (CONF:30053).

      iii. This observation **SHALL** contain exactly one [1..1] `code`="TBD" Primary Injury Cause (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30054).

      iv. This observation **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:30055).

      Note: Value Set definition still pending at the time of publication.

112. **SHOULD** contain zero or more [0..*] `component` (CONF:30056).

   a. The component, if present, **SHALL** contain exactly one [1..1] `@typeCode`="COMP" (CONF:30057).

   b. The component, if present, **SHALL** contain exactly one [1..1] `@contextConductionInd`="true" (CONF:30058).

**CIM: SupplementalInjuryCauseObservation**

   c. The component, if present, **SHALL** contain exactly one [1..1] `observation` (CONF:30059).

      i. This observation **SHALL** contain exactly one [1..1] `@classCode`="OBS" (CONF:30060).

      ii. This observation **SHALL** contain exactly one [1..1] `@moodCode`="EVN" (CONF:30061).

      iii. This observation **SHALL** contain exactly one [1..1] `code`="74292-4" Supplemental Injury Cause (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30062).
iv. This observation SHALL contain at least one [1..*] value with @xsi:type="CD" (CONF:30063). Note: Value Set definition still pending at the time of publication.

113. SHALL contain exactly one [1..1] component (CONF:30064).
   a. This component SHALL contain exactly one [1..1] typeCode="COMP" (CONF:30065).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30066).

CIM: WorkRelatedObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30067).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30068).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30069).
   iii. This observation SHALL contain exactly one [1..1] code="TBD" Work Related Injury Indicator (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30070).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="BL" (CONF:30071).

6.9 Injury Event Location Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.213 (closed)]

This sub-entry template is an organizer for observations pertaining to site where the injury event took place, such as the location type and address.

114. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30093).
115. SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30094).
116. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.213" (CONF:30511).
117. SHALL contain exactly one [1..1] component (CONF:30095).
   a. This component SHALL contain exactly one [1..1] typeCode="COMP" (CONF:30201).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30202).

CIM: LocationTypeObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30096).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30097).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30098).
iii. This observation SHALL contain exactly one [1..1] code="11376-1" Location Type (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30099).

iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:30100).
   Note: Value Set definition still pending at the time of publication.

118. SHALL contain exactly one [1..1] component (CONF:30115).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30116).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30117).

CIM: PostalAddressObservation
   c. This component SHALL contain exactly one [1..1] observation (CONF:30118).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30119).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30120).
      iii. This observation SHALL contain exactly one [1..1] code="TBD" Postal Address (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30121).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="AD" (CONF:30122).

6.10 Inpatient Hospital Encounter
[encounter: templateId 2.16.840.1.113883.3.2898.10.812 (closed)]
This template captures inpatient hospital encounter content about a patient.

119. SHALL contain exactly one [1..1] @classCode="ENC" (CONF:30362).
120. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30363).
121. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.812" (CONF:30512).
122. SHALL contain exactly one [1..1] code="IMP" (CodeSystem: ActCode 2.16.840.1.113883.5.4) (CONF:30364).
123. SHALL contain exactly one [1..1] effectiveTime (CONF:30365).

CIM: InpatientHospitalEncounterDetailObservation
124. SHALL contain at least one [1..*] entryRelationship (CONF:30219).
   a. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30289).
   b. Such entryRelationships SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30290).

CIM: InpatientHospitalEncounterDetailObservation
c. Such entryRelationships SHALL contain at least one [1..*] Inpatient Hospital Encounter Detail Observation Organizer (templateId:2.16.840.1.113883.3.2898.10.8121) (CONF:30220).

CIM: InpatientHospitalProcedure
125. SHALL contain exactly one [1..1] entryRelationship (CONF:30277).
   a. This entryRelationship SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30279).
   b. This entryRelationship SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30280).

CIM: InpatientHospitalProcedure

   c. This entryRelationship SHALL contain exactly one [1..1] Inpatient Hospital Procedure (templateId:2.16.840.1.113883.3.2898.10.8122) (CONF:30278).

6.11 Inpatient Hospital Encounter Detail Observation Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.8121 (closed)]

This template captures inpatient hospital encounter detail observations about a patient. This will include health complications, ventilator duration, ICU stay duration, and discharge disposition for the patient.

126. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30367).
127. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30368).
128. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8121" (CONF:30513).
129. SHALL contain exactly one [1..1] component (CONF:30239).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30281).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30282).

CIM: HospitalComplicationsObservation

   c. This component SHALL contain exactly one [1..1] observation (CONF:30240).
      i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30369).
      ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30370).
      iii. This observation SHALL contain exactly one [1..1] code="74284-1" Hospital Complication (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30371).
      iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet HospitalComplicationsKind 2.16.840.1.113883.3.2898.11.13 (CONF:30372).
130. **SHALL** contain exactly one [1..1] component (CONF:30241).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30283).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30284).

CIM: TotalVentilatorDurationObservation
   c. This component **SHALL** contain exactly one [1..1] observation (CONF:30242).
      i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30373).
      ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30374).
      iii. This observation **SHALL** contain exactly one [1..1] code="74201-5" Total Ventilator Duration (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30375).
      iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="PQ.TIME" (CONF:30376).

131. **SHALL** contain exactly one [1..1] component (CONF:30243).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30285).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30286).

CIM: TotalICUStayDurationObservation
   c. This component **SHALL** contain exactly one [1..1] observation (CONF:30244).
      i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30377).
      ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30378).
      iii. This observation **SHALL** contain exactly one [1..1] code="74200-7" Total ICU Stay Duration (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30379).
      iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="PQ.TIME" (CONF:30380).

132. **SHALL** contain exactly one [1..1] component (CONF:30245).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30287).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30288).

CIM: DischargeDispositionObservation
   c. This component **SHALL** contain exactly one [1..1] observation (CONF:30246).
      i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30381).
ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30382).

iii. This observation **SHALL** contain exactly one [1..1] code="74290-8" Discharge Disposition (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30383).

iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet HospitalInpatientDischargeDispositionKind 2.16.840.1.113883.3.2898.11.15 (CONF:30384).

### 6.12 Inpatient Hospital Procedure
[procedure: templateId 2.16.840.1.113883.3.2898.10.8122 (closed)]

This template captures inpatient hospital procedures.

133. **SHALL** contain exactly one [1..1] @classCode="PROC" (CONF:30386).

134. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30387).

135. **SHALL** contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8122" (CONF:30496).

136. **SHALL** contain exactly one [1..1] code, which **SHALL** be selected from ValueSet HospitalProceduresKind 2.16.840.1.113883.3.2898.11.11 (CONF:30366).

137. **SHALL** contain exactly one [1..1] effectiveTime (CONF:30388).

### 6.13 Nervous System Observation Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.8132 (closed)]

This template captures nervous system observations about a patient including Glasgow Coma Responses.

138. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:30412).

139. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30413).

140. **SHALL** contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8122" (CONF:30514).

141. **SHALL** contain exactly one [1..1] component (CONF:30227).

   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30307).

   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30308).

CIM: NervousSystemObservation

   c. This component **SHALL** contain exactly one [1..1] Nervous System Observation Organizer Entry (templateId:2.16.840.1.113.883.3.2898.10.511) (CONF:30228).

142. **SHALL** contain exactly one [1..1] component (CONF:30257).

   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30309).
b. This component SHALL contain exactly one [1..1]
   @contextConductionInd="true" (CONF:30310).

CIM: GlasgowComaScoreQualifiersObservation

c. This component SHALL contain exactly one [1..1] observation
   (CONF:30258).
   i. This observation SHALL contain exactly one [1..1]
      @classCode="OBS" (CONF:30414).
   ii. This observation SHALL contain exactly one [1..1]
       @moodCode="EVN" (CONF:30415).
   iii. This observation SHALL contain exactly one [1..1] code="TBD"
        Glasgow Coma Score Qualifier (CodeSystem: LOINC
        2.16.840.1.113883.6.1) (CONF:30416).
   iv. This observation SHALL contain exactly one [1..1] value with
       @xsi:type="CD", where the code SHALL be selected from
       ValueSet GlasgowComaScoreQualifiersKind
       2.16.840.1.113883.17.3.5.89 (CONF:30417).

6.14 Nervous System Observation Organizer Entry
   [organizer: templateId 2.16.840.1.113.883.3.2898.10.511 (closed)]

This sub-entry template is an organizer for observations pertaining to the
nervous system of a patient, such as Glasgow Coma Response observations.

143. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30101).
144. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30102).
145. SHALL contain exactly one [1..1]
    templateId="2.16.840.1.113.883.3.2898.10.511" (CONF:30515).

CIM: NervousSystemGlasgowComaEyeResponseComponent

146. SHALL contain exactly one [1..1] component (CONF:30103).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP"
      (CONF:30107).
   b. This component SHALL contain exactly one [1..1]
      @contextConductionInd="true" (CONF:30108).

CIM: GlasgowComaEyeResponseObservation

c. This component SHALL contain exactly one [1..1] observation
   (CONF:30123).
   i. This observation SHALL contain exactly one [1..1]
      @classCode="OBS" (CONF:30124).
   ii. This observation SHALL contain exactly one [1..1]
       @moodCode="EVN" (CONF:30125).
   iii. This observation SHALL contain exactly one [1..1] code="TBD"
        Glasgow Coma Eye Response (CodeSystem: LOINC
        2.16.840.1.113883.6.1) (CONF:30135).
   iv. This observation SHALL contain exactly one [1..1] value with
       @xsi:type="INT" (CONF:30136).
CIM: NervousSystemGlasgowComaScoreResponseComponent

147. **SHALL** contain exactly one [1..1] **component** (CONF:30104).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30109).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30110).

CIM: GlasgowComaScoreResponseObservation

c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30126).
   i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30127).
   ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30128).
   iii. This observation **SHALL** contain exactly one [1..1] code="TBD" Glasgow Coma Total Response (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30137).
   iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:30138).

CIM: NervousSystemGlasgowComaMotorResponseComponent

148. **SHALL** contain exactly one [1..1] **component** (CONF:30105).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30111).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30112).

CIM: GlasgowComaMotorResponseObservation

c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30129).
   i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30130).
   ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30131).
   iii. This observation **SHALL** contain exactly one [1..1] code="TBD" Glasgow Coma Motor Response (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30139).
   iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:30140).

CIM: NervousSystemGlasgowComaVerbalResponseComponent

149. **SHALL** contain exactly one [1..1] **component** (CONF:30106).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30113).
   b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30114).
c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30132).
   i. This observation **SHALL** contain exactly one [1..1]
      @classCode="OBS" (CONF:30133).
   ii. This observation **SHALL** contain exactly one [1..1]
       @moodCode="EVN" (CONF:30134).
   iii. This observation **SHALL** contain exactly one [1..1] code="TBD"
        Glasgow Coma Verbal Response (CodeSystem: LOINC
        2.16.840.1.113883.6.1) (CONF:30141).
   iv. This observation **SHALL** contain exactly one [1..1] **value** with
       @xsi:type="INT" (CONF:30142).

6.15 **Respiratory System Observation Organizer Entry**

[organizer: templateId 2.16.840.1.113.883.3.2898.10.411 (closed)]

This sub-entry template is an organizer for observations pertaining to the respiratory system of a patient, such as arterial oxygen saturation and respiratory rate observation.

150. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:30075).
151. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30076).
152. **SHALL** contain exactly one [1..1]
    templateId="2.16.840.1.113.883.3.2898.10.411" (CONF:30517).
CIM: RespiratorySystemArterialOxygenSaturationComponent

153. **SHALL** contain exactly one [1..1] **component** (CONF:30077).
   a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP"
      (CONF:30079).
   b. This component **SHALL** contain exactly one [1..1]
      @contextConductionInd="true" (CONF:30080).
CIM: ArterialOxygenSaturationObservation

c. This component **SHALL** contain exactly one [1..1] **observation**
   (CONF:30081).
   i. This observation **SHALL** contain exactly one [1..1]
      @classCode="OBS" (CONF:30082).
   ii. This observation **SHALL** contain exactly one [1..1]
       @moodCode="EVN" (CONF:30083).
   iii. This observation **SHALL** contain exactly one [1..1]
        code="2708-6" Arterial Oxygen Saturation Indicator
        (CodeSystem: LOINC 2.16.840.1.113883.6.1)
        (CONF:30084).
   iv. This observation **SHALL** contain exactly one [1..1] **value** with
       @xsi:type="PQ" (CONF:30085).
CIM: RespiratorySystemRespiratoryRateComponent

154. **SHALL** contain exactly one [1..1] **component** (CONF:30078).
a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30086).

b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30087).

CIM: RespiratoryRateObservation

c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30088).

i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30089).

ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30090).

iii. This observation **SHALL** contain exactly one [1..1] code="9279-1" Respiratory Rate (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30091).

iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:30092).

### 6.16 Respiratory System Organizer
[organizer: templateId 2.16.840.1.113883.3.2898.10.8134 (closed)]

This template captures hospital care observations about a patient such as respiratory assistance, supplemental oxygen, arterial oxygen saturation, and respiratory rate for a patient.

155. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:30432).

156. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30433).

157. **SHALL** contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.8134" (CONF:30516).

158. **SHALL** contain exactly one [1..1] **component** (CONF:30229).

a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30301).

b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30302).

CIM: RespiratorySystemObservation

c. This component **SHALL** contain exactly one [1..1] Respiratory System Observation Organizer Entry (templateId:2.16.840.1.113.883.3.2898.10.411) (CONF:30230).

159. **SHALL** contain exactly one [1..1] **component** (CONF:30265).

a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30303).

b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30304).

CIM: RespiratoryAssistanceObservation
c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30266).
   i. This observation **SHALL** contain exactly one [1..1]  
      @classCode="OBS" (CONF:30434).
   ii. This observation **SHALL** contain exactly one [1..1]  
       @moodCode="EVN" (CONF:30435).
   iii. This observation **SHALL** contain exactly one [1..1]  
   iv. This observation **SHALL** contain exactly one [1..1] **value** with  
       @xsi:type="BL" (CONF:30437).

160. **SHALL** contain exactly one [1..1] **component** (CONF:30267).
   a. This component **SHALL** contain exactly one [1..1]  
      @typeCode="COMP" (CONF:30305).
   b. This component **SHALL** contain exactly one [1..1]  
      @contextConductionInd="true" (CONF:30306).

CIM: SupplementalOxygenObservation

   c. This component **SHALL** contain exactly one [1..1] **observation** (CONF:30268).
      i. This observation **SHALL** contain exactly one [1..1]  
         @classCode="CLUSTER" (CONF:30438).
      ii. This observation **SHALL** contain exactly one [1..1]  
          @moodCode="EVN" (CONF:30439).
      iii. This observation **SHALL** contain exactly one [1..1]  
      iv. This observation **SHALL** contain exactly one [1..1] **value** with  
          @xsi:type="BL" (CONF:30441).

6.17 Safety Equipment Observation Organizer  
[organizer: templateId 2.16.840.1.113883.3.2898.10.215 (closed)]

This sub-entry template is an organizer for observations pertaining to safety  
equipment in use during the injury event.

161. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CONF:30203).
162. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30204).
163. **SHALL** contain exactly one [1..1]  
    templateId="2.16.840.1.113883.3.2898.10.215" (CONF:30518).
164. **SHALL** contain exactly one [1..1] **component** (CONF:30143).
   a. This component **SHALL** contain exactly one [1..1]  
      @typeCode="COMP" (CONF:30144).
   b. This component **SHALL** contain exactly one [1..1]  
      @contextConductionInd="true" (CONF:30145).

CIM: AirbagDeploymentObservation
c. This component SHALL contain exactly one [1..1] observation (CONF:30146).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30147).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30148).
   iii. This observation SHALL contain exactly one [1..1] code="TBD" Airbag Deployment (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30149).
   iv. This observation SHALL contain at least one [1..*] value with @xsi:type="CD", where the code SHALL be selected from ValueSet AirbagDeployment 2.16.840.1.113883.17.3.5.8 (CONF:30150).

165. SHALL contain exactly one [1..1] component (CONF:30151).
   a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30152).
   b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30153).

CIM: SafetyEquipmentUsedObservation

c. This component SHALL contain at least one [1..*] observation (CONF:30154).
   i. Such observations SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30155).
   ii. Such observations SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30156).
   iv. Such observations SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet SafetyEquipmentUsed 2.16.840.1.113883.17.3.5.7 (CONF:30158).

6.18 Transportation Method Observation
[observation: templateId 2.16.840.1.113.883.3.2898.10.611 (closed)]

The entry level template contains observations pertaining to the method of transportation used in transporting a patient.

166. SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30449).
167. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:30450).
168. SHALL contain exactly one [1..1] templateId="2.16.840.1.113.883.3.2898.10.6111" (CONF:30519).
170. **SHALL** contain at least one \([1..*]\) **value** with \(@xsi:type=\"CD\"\), where the code **SHALL** be selected from ValueSet **TransportationMethod** 2.16.840.1.113883.3.2898.11.10 (CONF:30452).

### 6.19 Transportation Observation Organizer

[organizer: templateId 2.16.840.1.113.883.3.2898.10.611 (closed)]

This sub-entry template is an organizer for observations pertaining to the transportation of a patient for the injury site to the treating hospital, such as dispatch date and time and transportation method.

171. **SHALL** contain exactly one \([1..1]\) **@classCode**="CLUSTER" (CONF:30170).
172. **SHALL** contain exactly one \([1..1]\) **@moodCode**="EVN" (CONF:30171).
173. **SHALL** contain exactly one \([1..1]\)
   
   **templateId**="2.16.840.1.113.883.3.2898.10.611" (CONF:30520).

CIM: TransportationDispatchDateTimeComponent

174. **SHALL** contain exactly one \([1..1]\) **component** (CONF:30172).
   
   a. This component **SHALL** contain exactly one \([1..1]\) **@typeCode**="COMP" (CONF:30174).
   
   b. This component **SHALL** contain exactly one \([1..1]\)
      
      **@contextConductionInd**="true" (CONF:30175).

CIM: DispatchDateTimeObservation

   c. This component **SHALL** contain exactly one \([1..1]\) **observation** (CONF:30176).
      
      i. This observation **SHALL** contain exactly one \([1..1]\)
         
         **@classCode**="OBS" (CONF:30180).
      
      ii. This observation **SHALL** contain exactly one \([1..1]\)
          
          **@moodCode**="EVN" (CONF:30181).
      
      iii. This observation **SHALL** contain exactly one \([1..1]\) **code**="TBD"
          
      
      iv. This observation **SHALL** contain exactly one \([1..1]\) **value** with
          
          \(@xsi:type=\"TS\"\) (CONF:30183).

CIM: TransportationTransportationMethodComponent

175. **SHALL** contain exactly one \([1..1]\) **component** (CONF:30173).
   
   a. This component **SHALL** contain exactly one \([1..1]\) **@typeCode**="COMP" (CONF:30177).
   
   b. This component **SHALL** contain exactly one \([1..1]\)
      
      **@contextConductionInd**="true" (CONF:30178).

CIM: TransportationMethodObservation

   c. This component **SHALL** contain exactly one \([1..1]\) **TransportationMethod Observation**
      
      (templateId:2.16.840.1.113.883.3.2898.10.6111) (CONF:30179).
6.20 Trauma Injury Severity Organizer Entry

This sub-entry template is an organizer for observations pertaining to the severity of the injuries sustained by a trauma patient.

176. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CONF:30014).
177. SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30015).
178. SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.3.2898.10.211" (CONF:30521).
179. SHALL contain exactly one [1..1] component (CONF:30016).

CIM: AbreviatedInjuryObservation

a. This component SHALL contain exactly one [1..1] observation (CONF:30017).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30018).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30019).
   iii. This observation SHALL contain exactly one [1..1] code="TBD" Injury (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30020).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet AbbreviatedInjuryScaleSeverity 2.16.840.1.113883.3.2898.11.7 (CONF:30021).
180. SHALL contain exactly one [1..1] component (CONF:30022).
    a. This component SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:30023).
    b. This component SHALL contain exactly one [1..1] @contextConductionInd="true" (CONF:30024).

CIM: BodyInjuryObservation

c. This component SHALL contain exactly one [1..1] observation (CONF:30025).
   i. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CONF:30026).
   ii. This observation SHALL contain exactly one [1..1] @moodCode="Evn" (CONF:30027).
   iii. This observation SHALL contain exactly one [1..1] code="TBD" Body Injury (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30028).
   iv. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet AbbreviatedInjuryScaleSeverity 2.16.840.1.113883.3.2898.11.7 (CONF:30029).
181. SHALL contain exactly one [1..1] component (CONF:30030).
a. This component **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:30031).

b. This component **SHALL** contain exactly one [1..1] @contextConductionInd="true" (CONF:30032).

CIM: SeverityScoreObservation

c. This component **SHALL** contain exactly one [1..1] observation (CONF:30033).
   i. This observation **SHALL** contain exactly one [1..1] @classCode="OBS" (CONF:30034).
   ii. This observation **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:30035).
   iii. This observation **SHALL** contain exactly one [1..1] code="TBD" Severity Score (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:30036).
   iv. This observation **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:30037).
## 7 TEMPLATE IDS IN THIS GUIDE

### Table 2: Template Containments

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<tr>
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<td>2.16.840.1.113883.3.2898.10.8</td>
</tr>
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<td>Hospital Care Episode Encounter</td>
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<td>2.16.840.1.113883.3.2898.10.81</td>
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# 8 Value Sets in This Guide

## Table 3: Administrative Gender Excluding Nulls

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## Table 4: NHSNEthnicityGroup

Value Set: NHSNEthnicityGroup 2.16.840.1.114222.4.11.837
Code System: Race & Ethnicity - CDC 2.16.840.1.113883.6.238
Specific URL Pending

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## Table 5: ResidenceStatus

Value Set: ResidenceStatus 2.16.840.1.113883.3.2898.11.3

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## Table 6: AgePQ_UCUM

Value Set: AgePQ_UCUM 2.16.840.1.113883.11.20.9.21
A valueSet of UCUM codes for representing age value units. Specific URL Pending

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<td>Minute</td>
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<td>2.16.840.1.113883.6.8</td>
<td>Hour</td>
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<tr>
<td>d</td>
<td>UCUM</td>
<td>2.16.840.1.113883.6.8</td>
<td>Day</td>
</tr>
<tr>
<td>wk</td>
<td>UCUM</td>
<td>2.16.840.1.113883.6.8</td>
<td>Week</td>
</tr>
<tr>
<td>mo</td>
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<td>2.16.840.1.113883.6.8</td>
<td>Month</td>
</tr>
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<td>a</td>
<td>UCUM</td>
<td>2.16.840.1.113883.6.8</td>
<td>Year</td>
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### Table 7: Race Category Excluding Nulls

<table>
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<tbody>
<tr>
<td>1002-5</td>
<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
<td>American Indian or Alaska Native</td>
</tr>
<tr>
<td>2028-9</td>
<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
<td>Asian</td>
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<tr>
<td>2054-5</td>
<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
<td>Black or African American</td>
</tr>
<tr>
<td>2076-8</td>
<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
<td>Native Hawaiian or Other Pacific Islander</td>
</tr>
<tr>
<td>2106-3</td>
<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
<td>White</td>
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### Table 8: Industry

<table>
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<th>Print Name</th>
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<tr>
<td>11</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Agriculture, Forestry, Fishing and Hunting</td>
</tr>
<tr>
<td>21</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Mining, Quarrying, and Oil and Gas Extraction</td>
</tr>
<tr>
<td>22</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Utilities</td>
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<td>23</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Construction</td>
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<tr>
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<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Manufacturing</td>
</tr>
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<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Wholesale Trade</td>
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<td>Industry (NAICS)</td>
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<td>Retail Trade</td>
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<td>48</td>
<td>Industry (NAICS)</td>
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<td>Transportation and Warehousing</td>
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<td>51</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Information</td>
</tr>
<tr>
<td>52</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Finance and Insurance</td>
</tr>
<tr>
<td>53</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Real Estate and Rental and Leasing</td>
</tr>
<tr>
<td>54</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Professional, Scientific, and Technical Services</td>
</tr>
<tr>
<td>55</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Management of Companies and Enterprises</td>
</tr>
<tr>
<td>56</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Administrative and Support and Waste Management and Remediation Services</td>
</tr>
<tr>
<td>61</td>
<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
<td>Educational Services</td>
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### Table 9: Occupation

<table>
<thead>
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<th>Code System OID</th>
<th>Print Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Architecture and Engineering Occupations</td>
</tr>
<tr>
<td>27-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Arts, Design, Entertainment, Sports, and Media Occupations</td>
</tr>
<tr>
<td>37-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Building and Grounds Cleaning and Maintenance</td>
</tr>
<tr>
<td>21-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Community and Social Service Occupations</td>
</tr>
<tr>
<td>15-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Computer and Mathematical Occupations</td>
</tr>
<tr>
<td>47-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Construction and Extraction Occupations</td>
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<tr>
<td>25-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Education, Training, and Library Occupations</td>
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<tr>
<td>45-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Farming, Fishing, and Forestry Occupinations</td>
</tr>
<tr>
<td>35-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Food Preparation and Serving Related Occupations</td>
</tr>
<tr>
<td>29-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Healthcare Practitioners and Technical Occupations</td>
</tr>
<tr>
<td>31-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Healthcare Support Occupations</td>
</tr>
<tr>
<td>49-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Installation, Maintenance, and Repair Occupations</td>
</tr>
<tr>
<td>23-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Legal Occupations</td>
</tr>
<tr>
<td>19-000</td>
<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
<td>Life, Physical, and Social Science Occupations</td>
</tr>
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### Table 10: HospitalEmergencyDischargeDispositionKind

<table>
<thead>
<tr>
<th>Code</th>
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<th>Code System OID</th>
<th>Print Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMP113</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Died/Expired</td>
</tr>
<tr>
<td>TEMP114</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Floor bed (general admission, non-specialty unit bed)</td>
</tr>
<tr>
<td>TEMP115</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Home with services</td>
</tr>
<tr>
<td>TEMP116</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Home without services</td>
</tr>
<tr>
<td>TEMP117</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Intensive Care Unit (ICU)</td>
</tr>
<tr>
<td>TEMP118</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Left against medical advice</td>
</tr>
<tr>
<td>TEMP119</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Observation unit (unit that provides &lt; 24 hour stays)</td>
</tr>
<tr>
<td>TEMP120</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Operating Room</td>
</tr>
<tr>
<td>TEMP121</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Telemetry/step-down unit (less acuity than ICU)</td>
</tr>
<tr>
<td>TEMP122</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Transferred to another hospital</td>
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### Table 11: DrugUseKind

<table>
<thead>
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<tbody>
<tr>
<td>TEMP155</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No (confirmed by test)</td>
</tr>
<tr>
<td>TEMP156</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No (not tested)</td>
</tr>
<tr>
<td>TEMP157</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Yes (confirmed by test [illegal use drug])</td>
</tr>
<tr>
<td>TEMP158</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Yes (confirmed by test [prescription drug])</td>
</tr>
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</table>

### Table 12: AlcoholUseKind

<table>
<thead>
<tr>
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<th>Print Name</th>
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<tr>
<td>TEMP150</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No (confirmed by test)</td>
</tr>
<tr>
<td>TEMP151</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No (not tested)</td>
</tr>
<tr>
<td>TEMP152</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Yes (confirmed by test [beyond legal limit])</td>
</tr>
<tr>
<td>TEMP153</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Yes (confirmed by test [trace levels])</td>
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### Table 13: CoMorbidConditionsKind

Value Set: CoMorbidConditionsKind 2.16.840.1.113883.3.2898.11.12

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<tbody>
<tr>
<td>TEMP062</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Advanced directive limiting care</td>
</tr>
<tr>
<td>TEMP063</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>alcoholism</td>
</tr>
<tr>
<td>TEMP064</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>ascites</td>
</tr>
<tr>
<td>TEMP065</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>blood coagulation disorder</td>
</tr>
<tr>
<td>TEMP066</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>chronic renal failure syndrome</td>
</tr>
<tr>
<td>TEMP067</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>cirrhosis of liver</td>
</tr>
<tr>
<td>TEMP068</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>congenital disease</td>
</tr>
<tr>
<td>TEMP069</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>congestive heart failure</td>
</tr>
<tr>
<td>TEMP070</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Current smoker</td>
</tr>
<tr>
<td>TEMP071</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Currently receiving chemotherapy for cancer</td>
</tr>
<tr>
<td>TEMP072</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>history of cerebrovascular accident with residual deficit</td>
</tr>
<tr>
<td>TEMP073</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>dementia</td>
</tr>
<tr>
<td>TEMP074</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>diabetes mellitus</td>
</tr>
<tr>
<td>TEMP075</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>widespread metastatic malignant neoplastic disease</td>
</tr>
<tr>
<td>TEMP076</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>drug dependence</td>
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### Table 14: PaymentMethodKind

Value Set: PaymentMethodKind 2.16.840.1.113883.3.2898.11.16

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<tbody>
<tr>
<td>TEMP134</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Blue Cross/Blue Shield</td>
</tr>
<tr>
<td>TEMP135</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Medicaid</td>
</tr>
<tr>
<td>TEMP136</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Medicare</td>
</tr>
<tr>
<td>TEMP137</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No Fault Automobile</td>
</tr>
<tr>
<td>TEMP138</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Not Billed (for any reason)</td>
</tr>
<tr>
<td>TEMP139</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Other Government</td>
</tr>
<tr>
<td>TEMP140</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Private/Commercial Insurance</td>
</tr>
<tr>
<td>TEMP141</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Self Pay</td>
</tr>
<tr>
<td>TEMP142</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Workers Compensation</td>
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### Table 15: HospitalComplicationsKind

<table>
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<tr>
<td>TEMP090</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>injury of kidney</td>
</tr>
<tr>
<td>TEMP091</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>pulmonary insufficiency following trauma</td>
</tr>
<tr>
<td>TEMP092</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>cardiac arrest</td>
</tr>
<tr>
<td>TEMP093</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>bloodstream infection</td>
</tr>
<tr>
<td>TEMP094</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>decubitus ulcer</td>
</tr>
<tr>
<td>TEMP095</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>surgical site infection</td>
</tr>
<tr>
<td>TEMP096</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>venous thrombosis</td>
</tr>
<tr>
<td>TEMP097</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>drug withdrawal</td>
</tr>
<tr>
<td>TEMP098</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>compartment syndrome</td>
</tr>
<tr>
<td>TEMP099</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>soft tissue graft or flap or repair failure</td>
</tr>
<tr>
<td>TEMP100</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>myocardial infarction</td>
</tr>
<tr>
<td>TEMP101</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>surgical site infection</td>
</tr>
<tr>
<td>TEMP102</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>osteomyelitis</td>
</tr>
<tr>
<td>TEMP103</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>pneumonia</td>
</tr>
<tr>
<td>TEMP104</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>pulmonary embolism</td>
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### Table 16: HospitalInpatientDischargeDispositionKind

<table>
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<th>Code System OID</th>
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<tbody>
<tr>
<td>TEMP124</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharge/Transferred to home under care of organized home health service</td>
</tr>
<tr>
<td>TEMP125</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged home with no home services</td>
</tr>
<tr>
<td>TEMP126</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged/Transferred to hospice care</td>
</tr>
<tr>
<td>TEMP127</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged/Transferred to a short-term general hospital for inpatient care</td>
</tr>
<tr>
<td>TEMP128</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged/Transferred to an Intermediate Care Facility (ICF)</td>
</tr>
<tr>
<td>TEMP129</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged/Transferred to another type of rehabilitation or long-term care facility</td>
</tr>
<tr>
<td>TEMP130</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Discharged/Transferred to Skilled Nursing Facility</td>
</tr>
<tr>
<td>TEMP131</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Expired</td>
</tr>
<tr>
<td>TEMP132</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Left against medical advice or discontinued care</td>
</tr>
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</table>

### Table 17: GlasgowComaScoreQualifiersKind

<table>
<thead>
<tr>
<th>Code</th>
<th>Code System</th>
<th>Code System OID</th>
<th>Print Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMP144</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Obstruction to the Patient’s Eye</td>
</tr>
<tr>
<td>TEMP145</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Patient Chemically Paralyzed</td>
</tr>
<tr>
<td>TEMP146</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Patient Chemically Sedated</td>
</tr>
<tr>
<td>TEMP147</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Patient Intubated</td>
</tr>
<tr>
<td>TEMP148</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to the eye</td>
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</table>
### Table 18: AirbagDeployment

<table>
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<tr>
<th>Code</th>
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<tr>
<td>TEMP005</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Airbag deployed front</td>
</tr>
<tr>
<td>TEMP006</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Airbag deployed other (knee, airbelt, etc.)</td>
</tr>
<tr>
<td>TEMP007</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Airbag deployed side</td>
</tr>
<tr>
<td>TEMP008</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No airbag deployed</td>
</tr>
<tr>
<td>TEMP009</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>No airbag present</td>
</tr>
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### Table 19: SafetyEquipmentUsed

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<td>TEMP016</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Eye protection</td>
</tr>
<tr>
<td>TEMP017</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Helmet worn</td>
</tr>
<tr>
<td>TEMP018</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Lap Belt Only Used</td>
</tr>
<tr>
<td>TEMP019</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Personal flotation device</td>
</tr>
<tr>
<td>TEMP020</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Protective clothing</td>
</tr>
<tr>
<td>TEMP021</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Protective non-clothing gear</td>
</tr>
<tr>
<td>TEMP022</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Shoulder Belt Only Used</td>
</tr>
<tr>
<td>TEMP023</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Shoulder and Lap Belt Used</td>
</tr>
<tr>
<td>TEMP009</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Child booster seat</td>
</tr>
<tr>
<td>TEMP010</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Infant car seat rear facing</td>
</tr>
<tr>
<td>TEMP011</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Infant car seat forward facing</td>
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### Table 20: TransportationMethod

<table>
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<td>LOINC</td>
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<td>Air medical-fixed wing</td>
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<tr>
<td>TEMP047</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Ground-ambulance</td>
</tr>
<tr>
<td>TEMP048</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Air medical-rotor craft</td>
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<tr>
<td>TEMP049</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Police</td>
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<tr>
<td>TEMP050</td>
<td>LOINC</td>
<td>2.16.840.1.113883.6.1</td>
<td>Private/Public Vehicle/Walk-in</td>
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## 9 Code Systems in This Guide

Table 21: Code Systems

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<tr>
<td>ActCode</td>
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<td>Industry (NAICS)</td>
<td>2.16.840.1.113883.6.85</td>
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<td>LOINC</td>
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<td>Occupation (SOC 2000)</td>
<td>2.16.840.1.113883.6.243</td>
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<td>Race &amp; Ethnicity - CDC</td>
<td>2.16.840.1.113883.6.238</td>
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<td>SCT</td>
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<td>UCUM</td>
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## MAPPING TO NTDB DATA DICTIONARY

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