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Implementation Guide for CDA Release 2.0
Care Record Summary Release 2
Discharge Summary

(U.S. Realm)

Draft Standard for Trial Use

Levels 1, 2 and 3

December 2009

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

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

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Revision History

Rev	Date	By Whom	Changes	Notes
ballot 1.0	6 August 2009	B. Marquard, S. Hardy	Initial ballot draft	
1.1	13 November 2009	B. Marquard, S. Hardy	DSTU Publication	

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1 INTRODUCTION

1.1 Purpose

The purpose of this document is to describe constraints on the Clinical Document Architecture (CDA) header and body elements for Discharge Summary documents.

The Discharge Summary is a synopsis of a patient's admission to a hospital; it provides pertinent information for the continuation of care following discharge. The Joint Commission requires the following information to be included in the Discharge Summary[1]:

- The reason for hospitalization
- The procedures performed
- The care, treatment, and services provided
- The patient's condition and disposition at discharge
- Information provided to the patient and family
- Provisions for follow-up care

1.2 Audience

The audience for this document includes software developers and consultants responsible for implementation of U.S. realm Electronic Health Record (EHR) systems, Personal Health Record (PHR) systems, dictation/transcription systems, and document management applications; and local, regional, and national health information exchange networks who wish to create and/or process CDA documents developed according to this specification.

1.3 Approach

The approach taken in the development of this specification was to review existing draft and final specifications or implementation guides for similar artifacts in the U.S.:

- Clinical LOINC® document and section codes
- Health Information Technology Standards Panel (HITSP) Constructs, including the Encounter Document Using IHE Medical Summary (XDS-MS) Component (C48)
- HL7 Clinical Document Architecture, Release 2 Normative Web Edition, 2005
- CDA Release 2 – CCD: Continuity of Care Document (CCD)

[1] Joint Commission Requirements for Discharge Summary (JCAHO IM.6.10 EP7). See http://www.jointcommission.org/NR/rdonlyres/C9298DD0-6726-4105-A007-FE2C65F77075/0/CMS_New_Revised_HAP_FINAL_withScoring.pdf (page 26).

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- HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes
- HL7 Implementation Guide for CDA Release 2: Care Record Summary
- HL7 Implementation Guide for CDA Release 2: Consultation Note
- HL7 Implementation Guide for CDA Release 2: Operative Note
- Integrating the Healthcare Enterprise (IHE) Profiles, including the content profiles within Patient Care Coordination (PCC)
- Non-CDA sample documents supplied by participating providers and vendors

In addition, M*Modal provided statistical analysis of approximately 19,000 sample Discharge Summary reports, and the Association for Healthcare Documentation Integrity (AHDI) and participating providers contributed extensive subject matter expertise. The HL7 Structured Documents Work Group reviewed the design. While current divergent industry practices cannot be perfectly reflected in any consensus model, this design is intended to increase consistency with minimal disruption to current practice and workflow.

1.4 Organization of This Guide

The requirements of this Draft Standard for Trial Use (DSTU) are on track to become normative after a trial period and will be subject to change under the policies for DSTU per the HL7 Governance and Operations Manual. This guide is organized into the following major sections:

- General Header Constraints
- Header Constraints Specific to the Discharge Summary
- Required Sections
- Optional Sections

Each major section or subsection of the document is organized to provide:

- A narrative overview and scope for that section
- CDA Release 2 (R2) constraints

1.5 Use of Templates

When valued in an instance, the template identifier signals the imposition of a set of template-defined constraints. The value of this attribute provides a unique identifier for the template in question.

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1.5.1 Originator Responsibilities: General Case

An originator can apply a template identifier (`templateId`) to assert conformance with a particular template.

In the most general forms of CDA exchange, an originator need not apply a `templateId` for every template that an object in an instance document conforms to. This implementation guide asserts when `templateIds` are required for conformance.

1.5.2 Recipient Responsibilities: General Case

A recipient may reject an instance that does not contain a particular `templateId` (e.g., a recipient looking to receive only CCD documents can reject an instance without the appropriate `templateId`).

A recipient may process objects in an instance document that do not contain a `templateId` (e.g., a recipient can process entries that contain `Observation` acts within a Problems section, even if the entries do not have `templateIds`).

1.6 Conventions Used in This Guide

1.6.1 Conformance Requirements

The conformance statements are numbered sequentially and listed within the body of the DSTU as follows:

CONF-ex1: Conformance requirements original to this DSTU are numbered CONF DS 1, CONF DS 2, etc.

1.6.2 Vocabulary Conformance

Formalisms for value-set constraints are based on the latest recommendations from the HL7 Vocabulary Committee. Value-set constraints can be "**STATIC**," meaning that they are bound to a specified version of a value set, or "**DYNAMIC**," meaning that they are bound to the most current version of a value set. A simplified constraint is used when binding is to a single code.

Syntax for vocabulary binding to **DYNAMIC** or **STATIC** value sets:

A (`pathname of coded element`) element (**SHALL** | **SHOULD** | **MAY**) be present where the value of (`pathname of coded element`) is selected from Value Set `valueSetOID localValueSetName` [**DYNAMIC** | **STATIC** (`valueSetEffectiveDate`)].

CONF-ex2: A `code` element **SHALL** be present where the value of `@code` is selected from Value Set `2.16.840.1.113883.19.3 LoincDocumentTypeCode` **DYNAMIC**.

CONF-ex3: A `code` element **SHALL** be present where the value of `@code` is selected from Value Set `2.16.840.1.113883.19.3 LoincDocumentTypeCode` **STATIC** `20061017`.

Syntax for vocabulary binding to a single code:

A (`pathname of coded element`) element (**SHALL** | **SHOULD** | **MAY**) be present where the value of (`pathname of coded element`) is `code [displayName] codeSystemOID [codeSystemName]` **STATIC**.

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CONF-ex4: A `code` element **SHALL** be present where the value of `@code` is `34133-9 Summarization of episode note` `2.16.840.1.113883.6.1` `LOINC` **STATIC**.

1.6.3 Keywords

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

- **SHALL**: an absolute requirement
- **SHALL NOT**: an absolute prohibition against inclusion
- **SHOULD/SHOULD NOT**: valid reasons to include or ignore a particular item, but must be understood and carefully weighed
- **MAY/NEED NOT**: truly optional; can be included or omitted as the author decides with no implications

1.6.4 XPath Notation

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

Note that the XPath constraints are explicit. If the guide says a standard code must be at `code@code`, that is what is meant.

There is a discrepancy in the implementation of the translation element versus the description in Data Types R1. The R1 data type requires the original code in the root, while this implementation guide specifies the standard code in the root. This is resolved in R2.

1.6.5 XML Examples

XML examples appear in various figures in this document in `this monospace font`. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (…) as shown in the example below.

Figure 1: ClinicalDocument example

```
<ClinicalDocument xmins="urn:h17-org:v3">
  ...
</ClinicalDocument>
```


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1.7 Scope

This implementation guide is a conformance profile, as described in the Refinement and Localization section of the HL7 Version 3 standards. The base standard for this implementation guide is the HL7 Clinical Document Architecture, Release 2.0. As defined in that document, this implementation guide is both an annotation profile and a localization profile. CDA R2 is not fully described in this guide, so implementers must be familiar with the requirements of the base specification.

As an annotation profile, portions of this guide summarize or explain the base standard; therefore, some requirements stated here originate not in this DSTU but in the base specification. Requirements that do not add further constraints to the base standard and that can be validated through CDA.xsd do not have corresponding conformance statements in this DSTU.

This DSTU is the fifth in a series of implementation guides being developed in part through the efforts of Health Story (formerly CDA4CDT), where the CDA architecture is defined down to CDA Level 2 granularity with reuse of previously created entry-level templates where appropriate. These implementation guides will be compiled into a single guide for normative balloting at the conclusion of the DSTU trial period. More information on Health Story may be found at www.healthstory.com.

This specification defines additional constraints on CDA header and body elements used in a Discharge Summary document in the U.S. realm. The general header constraints for a Discharge Summary are from the History and Physical Note Implementation Guide (see also 2 CDA Header – General Constraints).

Where no constraints are stated in this guide, Discharge Summary instances are subject to and are to be created in accordance with the base CDA R2 specification. Where, for instance, the CDA R2 specification declares an attribute to be optional and the Discharge Summary specification includes no additional constraints, that attribute remains optional for use in a Discharge Summary instance.

1.7.1 Levels of Constraint

This DSTU identifies the required and optional clinical content within the document. The DSTU specifies three levels of conformance requirements:

- Level 1 requirements specify constraints upon the CDA header and the content of the document.
- Level 2 requirements specify constraints at the section level of the `structuredBody` of the `ClinicalDocument` element of the CDA document.
- Level 3 requirements specify constraints at the entry level within a section. All Level 3 entries in this implementation guide are references to CCD, IHE, or HITSP. They are optional.

Note that these levels are rough indications of what a recipient can expect in terms of machine-processable coding and content reuse. They do not reflect the level or type of clinical content; many additional distinctions in reusability could be defined.

Conformance to the DSTU carries with it an implicit adherence to Level 1, which asserts header element constraints. Conformance to the DSTU at Level 1 (whether specified or implicit) asserts header element constraints, but allows a non-XML body or an XML

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body that may or may not conform to additional templates defined herein. Likewise, conformance to the DSTU at Level 2 does not require conformance to entry-level templates, but does assert conformance to header- and section-level templates. In all cases, required clinical content must be present. For example, a CDA Discharge Summary carrying the `templateId` that asserts conformance with Level 1 may use a PDF or HTML format for the body of the document that records the required clinical content.

1.7.2 Future Work

Future work includes the definition of increasingly refined (granular) machine-verifiable processing structures. This work will be performed in conjunction with other HL7 work groups and in cooperation with professional societies and other Standards Development Organizations (SDOs). There are many parallel efforts to create CDA implementation guides and standards based on CDA. Future work will address libraries of templates, including those defined and reused here, and refinement of the document type hierarchy.

Consolidation of related specifications for the History and Physical Note, Consultation Note, Operative Note, and others may lead to consolidation of requirements into a single publication providing guidance across a range of document types.

Finally, collaboration across HL7 affiliates should lead to the integration of this U.S. realm implementation guide into an international implementation guide for the Discharge Summary.

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2 CDA HEADER – GENERAL CONSTRAINTS

The History and Physical (H&P) Note DSTU defined a set of general constraints against the CDA header. The template defined there, the CDA General Header Constraints template, is reused here.

Note also that elements reused here may be further constrained within this implementation guide. For example, general constraints limit the document type code to the LOINC® document type vocabulary. In 3.1.3 ClinicalDocument/code, the document type code is further constrained for Discharge Summary documents.

The Discharge Summary requires two document-level `templateIds`: one asserts use of the CDA General Header Constraints template and the other asserts conformance with the specific constraints of the Discharge summary (CONF-DS-1 and CONF-DS-2).

CONF-DS-1: A document conforming to the CDA General Header Constraints template **SHALL** include the `ClinicalDocument/templateId 2.16.840.1.113883.10.20.3.`

Figure 2: Clinical Document/general header constraints, templateId example

```
<ClinicalDocument xmlns= "urn:hl7-org:v3">
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <!-- indicates conformance with CDA general header constraints -->
  <templateId root="2.16.840.1.113883.10.20.3"/>
  <!-- indicates conformance with the Discharge Summary DSTU -->
  <templateId root="2.16.840.1.113883.10.20.16.2"/>
  <id extension="996-756-495" root="2.16.840.1.113883.19.5"/>
  <code code="18842-5" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Discharge Summarization Note"/>
  <title>Discharge Summary</title>
  <effectiveTime value="20050329224411+0500"/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>
  <languageCode code="en-US"/>
  <setId extension="1977719" root="2.16.840.1.113883.19"/>
  <versionNumber value="1"/>
    ...
</ClinicalDocument>
```

The general constraints apply to:

- Clinical document and associated metadata
- ID, type ID
- Level of constraint
- Code, title
- Set ID and version number
- Effective time, confidentiality code
- Language code, realm code
- Participants

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- Record target (patient)
- Author
- Authenticator and legal authenticator
- Custodian
- Data enterer (transcriptionist)
- Informant
- Health care providers
- Personal relations and unrelated persons
- Information recipient (entered in “cc” field)
- Participant telephone number

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3 CDA HEADER – DISCHARGE SUMMARY-SPECIFIC CONSTRAINTS

3.1 ClinicalDocument Constraints

This section describes the `ClinicalDocument` constraints specific to Discharge Summary documents.

3.1.1 ClinicalDocument

The namespace for CDA Release 2.0 is *urn:hl7-org:v3*. Appropriate namespace declarations shall be used in the XML instance of the `ClinicalDocument`. In the examples in this specification, all elements are shown unprefixed, assuming that the default namespace is declared to be *urn:hl7-org:v3*.

3.1.2 ClinicalDocument/templateId

Conformant Discharge Summaries must carry the document-level `templateId` asserting conformance with this DSTU as well as the `templateId` for the CDA General Header Constraints template.

The following asserts conformance to the Discharge Summary DSTU.

CONF-DS-2: `ClinicalDocument/templateId` element **SHALL** be present with the value `2.16.840.1.113883.10.20.16.2`

Figure 3: ClinicalDocument/templateId example

```
<!-- indicates conformance with CDA General Header Constraints template -->
<templateId root="2.16.840.1.113883.10.20.3"/>
<!-- conforms to the DSTU -->
<templateId root="2.16.840.1.113883.10.20.16.2"/>
```

3.1.3 ClinicalDocument/code

CDA R2 states that LOINC is the preferred vocabulary for document type codes. The Discharge Summary LOINC Document Codes table shows the LOINC codes suitable for Discharge Summary, as of publication of this implementation guide. This is a dynamic value set meaning that these codes may be added to or deprecated by LOINC.

`Discharge Summarization Note 18842-5` is the recommended value. This code can be post-coordinated with practice setting and other parameters in the CDA header. Some of the LOINC codes listed here pre-coordinate the practice setting or the training or professional level of the author. If used, the pre-coordinated codes must be consistent with the LOINC document type code.

CONF-DS-3: The value of `ClinicalDocument/code` **SHALL** be selected from Value Set `2.16.840.1.113883.11.20.4.1 DischargeSummaryDocumentTypeCode` **DYNAMIC**.

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Table 1: Discharge Summary LOINC Document Codes

Value Set: DischargeSummaryDocumentTypeCode 2.16.840.1.113883.11.20.4.1 Code System: LOINC 2.16.840.1.113883.6.1			
LOINC Code	**Type of Service 'Component'**	**Setting 'System'**	**Specialty/Training/Professional Level 'Method_Type'**
18842-5	Discharge summarization note	{Setting}	{Provider}
11490-0	Discharge summarization note	{Setting}	Physician
28655-9	Discharge summarization note	{Setting}	Attending physician
29761-4	Discharge summarization note	{Setting}	Dentistry
34745-0	Discharge summarization note	{Setting}	Nursing
34105-7	Discharge summarization note	Hospital	{Provider}
34106-5	Discharge summarization note	Hospital	Physician

Figure 4: ClinicalDocument/code example

```
<code codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" code="18842-5"
      displayName="DISCHARGE SUMMARIZATION NOTE"/>
```

3.2 Participants

This section describes the Discharge Summary-specific constraints placed upon CDA participants described in the CDA header.

3.2.1 participant

The `participant` element identifies other supporting participants, including parents, relatives, caregivers, insurance policyholders, guarantors, and other participants related in some way to the patient. The `time` element of the `participant` may be present**.** When present, it indicates the time span over which the participation takes place. For example, in the case of health care providers or support persons or organizations, it indicates the time span over which care or support is provided.

CONF-DS-4: The `participant` element **MAY** be present. If present, the `participant/associatedEntity` element **SHALL** have an `associatedPerson` or `scopingOrganization` element.

This DSTU does not specify any use for `functionCode` for participants. Local policies will determine how this element should be used in implementations.

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3.2.2 Supporting Person or Organization

A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is also an emergency contact or next-of-kin should be recorded as a participant for each role played.

CONF-DS-5: When `participant/@typeCode` is `IND`, `associatedEntity/@classCode` **SHALL** be `PRS`, `NOK`, `CAREGIVER`, `AGNT`, `GUAR`, or `ECON`.

CONF-DS-6: When `associatedEntity/@classCode` is `PRS`, `NOK`, or `ECON`, then `associatedEntity/code` **SHALL** be present having a value drawn from the PersonalRelationshipRoleType domain or from SNOMED using any subtype of "`Person in the family`" (`303071001`).

Figure 5: Participant example for a supporting person

```
<participant typeCode="IND">
  <associatedEntity classCode="NOK">
    <code code="MTH" codeSystem="2.16.840.1.113883.5.111"
          codeSystemName="HL7 RoleCode"/>
    <addr>
      <streetAddressLine>6666 Home Street</streetAddressLine>
      <city>Blue Bell</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <country>USA</country>
    </addr>
    <telecom value="tel:(999)555-1212" use="WP"/>
    <associatedPerson>
      <name>
        <prefix>Mrs.</prefix>
        <given>Nelda</given>
        <family>Nuclear</family>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
```

3.2.3 componentOf

The Discharge Summary is always associated with a Hospital Admission using the `encompassingEncounter` element in the header.

CONF-DS-7: The `componentOf` element **SHALL** be present.

CONF-DS-8: The `encompassingEncounter` element **SHALL** have an `id` element.

The `effectiveTime` element represents the time or time interval in which the encounter took place.

CONF-DS-9: The `encompassingEncounter` element **SHALL** have an `effectiveTime` element.

CONF-DS-10: The `effectiveTime` element **SHALL** include both a `low` and a `high` element.

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The dischargeDispositionCode records the disposition of the patient at time of discharge. Access to the National Uniform Billing Committee (NUBC) code system requires a membership. The following conformance statement aligns with HITSP C80 requirements.

CONF-DS-11: The dischargeDispositionCode **SHALL** be present where the value of @code is selected from 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status **DYNAMIC** or, if access to NUBC is unavailable, from 2.16.840.1.113883.12.112 HL7 Discharge Disposition **DYNAMIC**.

CONF-DS-12: The dischargeDispositionCode **SHALL** be displayed when the document is rendered.

Table 2: HL7 Discharge Disposition

Code System: HL7 Discharge Disposition 2.16.840.1.113883.12.112	
Code	**Print Name**
01	Discharged to home or self care (routine discharge)
02	Discharged/transferred to another short-term general hospital for inpatient care
03	Discharged/transferred to skilled nursing facility (SNF)
04	Discharged/transferred to an intermediate-care facility (ICF)
05	Discharged/transferred to another type of institution for inpatient care or referred for outpatient services to another institution
06	Discharged/transferred to home under care of organized home health service organization
07	Left against medical advice or discontinued care
08	Discharged/transferred to home under care of Home IV provider
09	Admitted as an inpatient to this hospital
10 …19	Discharge to be defined at state level, if necessary
20	Expired (i.e., dead)
21 … 29	Expired to be defined at state level, if necessary
30	Still patient or expected to return for outpatient services (i.e., still a patient)
31 … 39	Still patient to be defined at state level, if necessary (i.e., still a patient)
40	Expired (i.e., died) at home
41	Expired (i.e., died) in a medical facility; e.g., hospital, SNF, ICF, or free-standing hospice
42	Expired (i.e., died) - place unknown

The encounterParticipant elements represent only those participants in the encounter, not necessarily the entire episode of care (see related information under the section for participant above).

CONF-DS-13: The encounterParticipant elements **MAY** be present. If present, the encounterParticipant/assignedEntity element **SHALL** have at least one assignedPerson or representedOrganization element present.

The responsibleParty element represents only the party responsible for the encounter, not necessarily the entire episode of care.

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CONF-DS-14: The `responsibleParty` element **MAY** be present. If present, the `responsibleParty/assignedEntity` element **SHALL** have at least one `assignedPerson` or `representedOrganization` element present.

Figure 6: componentOf example

```
<componentOf>
 <encompassingEncounter>
    <id extension="9937012" root="2.16.840.1.113883.19"/>
    <effectiveTime>
      <low value="20050329"/>
      <high value="20050329"/>
    </effectiveTime>
    <dischargeDispositionCode code="01"
          codeSystem="2.16.840.1.113883.12.112"
          displayName="Routine Discharge"
          codeSystemName="HL7 Discharge Disposition"/>
  </encompassingEncounter>
</componentOf>
```

3.3 Rendering Header Information for Human Presentation

Metadata carried in the header may already be available for rendering from electronic health records (EHRs) or other sources external to the document; therefore, there is normally no strict requirement to render directly from the document. An example of this would be a doctor using an EHR that already contains the patient's name, date of birth, current address, and phone number. When a CDA document is rendered within that EHR, those pieces of information may not need to be displayed since they are already known and displayed within the EHR's user interface. The Discharge Summary does require the discharge disposition to be included in any rendering of the document.

Good practice would recommend that the following be present whenever the document is viewed:

- Document title and document dates
- Service and encounter types, and date ranges as appropriate
- Names of all persons along with their roles, participations, participation date ranges, identifiers, address, and telecommunications information
- Names of selected organizations along with their roles, participations, participation date ranges, identifiers, address, and telecommunications information
- Date of birth for recordTarget(s)

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4 BODY

4.1 Section Descriptions

The scope of the Health Story project is to define a set of frequently used clinical documents in Level 2 CDA format—reusing CCD or other implementation guide entry-level templates when possible—but not to define new clinical statement entries. These DSTUs will then be implemented and their success evaluated before being balloted as normative standards.

Note, therefore, that certain elements that otherwise might best be described as clinical statement entries within a section are represented in this DSTU as sections. This allows some ability to machine-process the regulatory-agency-mandated Discharge Summary data elements for implementers who are not yet ready to implement Level 3 CDA. The fact that clinical statement entries are not described does not preclude a knowledgeable implementer from defining and implementing them.

This implementation guide defines required and optional sections.

All `section` elements in the body of the document must have a `code` and some nonblank text or one or more subsections, even if the purpose of the text is only to indicate that information is unknown.

CONF-DS-15: LOINC codes **SHALL** be used with the sections in a Discharge Summary. See the LOINC Codes for Sections table; other sections not listed in that table **MAY** be present as well. The exact text of the section names is not mandated.

CONF-DS-16: All sections **MAY** occur in any order and **MAY** be nested under other sections according to local policy.

CONF-DS-17: Sections and subsections **SHALL** have a title and the title **SHALL NOT** be empty.

CONF-DS-18: All sections **SHALL** include a narrative block and **SHOULD** include clinical statements.

Note that component names are shown in all caps per ASTM's Standard Specifications for Healthcare Document Formats (E2184.02).

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Table 3: LOINC Codes for Sections

Section Name	Required /Optional	Code	Component Name
Allergies	R	48765-2	ALLERGIES, ADVERSE REACTIONS, ALERTS
Discharge Diet	O	42344-2	DISCHARGE DIET
Family History	O	10157-6	HISTORY OF FAMILY MEMBER DISEASES
Functional Status	O	47420-5	FUNCTIONAL STATUS ASSESSMENT
History Of Present Illness	O	10164-2	HISTORY OF PRESENT ILLNESS
Hospital Course	R[2]	8648-8	HOSPITAL COURSE
Hospital Discharge Diagnosis	R[2]	11535-2	HOSPITAL DISCHARGE DX
Hospital Discharge Medications	R[2]	10183-2	HOSPITAL DISCHARGE MEDICATIONS
Hospital Discharge Physical	O	10184-0	HOSPITAL DISCHARGE PHYSICAL FINDINGS
Hospital Discharge Studies Sumary	O	11493-4	HOSPITAL DISCHARGE STUDIES SUMMARY
Immunizations	O	11369-6	HISTORY OF IMMUNIZATIONS
Past Medical History	O	11348-0	HISTORY OF PAST ILLNESS
Plan of Care	R[2]	18776-5	PLAN OF TREATMENT
Procedures	O[2]	47519-4	HISTORY OF PROCEDURES (may be a subsection of Past Medical History)
Problems	O	11450-4	PROBLEM LIST
Reason For Visit / Chief Complaint	O[2]	29299-5 / 10154-3 / 46239-0	REASON FOR VISIT / CHIEF COMPLAINT / REASON FOR VISIT+CHIEF COMPLAINT
Review of Systems	O	10187-3	REVIEW OF SYSTEMS
Social History	O	29762-2	SOCIAL HISTORY
Vital Signs	O	8716-3	VITAL SIGNS (may be a subsection of Hospital Discharge Physical)

[2] Joint Commission requires this section (see the Section Requirements from the Joint Commission table)

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4.2 Required Sections

Required sections in a Discharge Summary are determined by data mandated by regulatory agencies (see the Section Requirements from the Joint Commission table; not all Joint Commission sections are required due to low current use). Each section must contain text that addresses the section title. If no content is available, this must be denoted in the appropriate section. Local practices must ensure that their legal authenticator is aware that the "no content" delineation must be included in the legally authenticated document.

CONF-DS-19: A Discharge Summary **SHALL** include the sections listed as Required (R) in the LOINC Codes for Sections table.

4.2.1 Allergies 48765-2

All constraints from this section are from CCD; see the CCD Alerts section for conformance requirements.

This section lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives) used to assure the safety of health care delivery. Environmental allergens, such as pollens and pollutants, should be included in the Problems or Past Medical History section. A sample of an Allergies section is shown below.

CONF-DS-20: This section **SHALL** include the `templateId` for the CCD Alerts section (`2.16.840.1.113883.10.20.1.2`).

Figure 7: Allergies example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.2"/>
    <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC" displayName="ALLERGIES, ADVERSE REACTIONS,
ALERTS"/>
    <title>ALLERGIES AND ADVERSE REACTIONS</title>
    <text>
      <list listType="ordered">
        <item>Levaquin</item>
        <item>Lorazepam</item>
        <item>Peanuts</item>
      </list>
    </text>
  </section>
</component>
```

4.2.2 Hospital Course 8648-8

All constraints from this section are from the IHE Hospital Course section; all conformance requirements are included below.

The Hospital Course section describes the sequence of events from admission to discharge in a hospital facility. [IHE]

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CONF-DS-21: This section **SHALL** include the templateId for the IHE Hospital Course section (1.3.6.1.4.1.19376.1.5.3.1.3.5).

CONF-DS-22: A Discharge Summary **SHALL NOT** include more than one Hospital Course section (templateId 1.3.6.1.4.1.19376.1.5.3.1.3.5).

CONF-DS-23: A section/code element **SHALL** be present where the value of @code is 8648-8 Hospital Course 2.16.840.1.113883.6.1 LOINC **STATIC**.

Figure 8: Hospital course example

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.5"/>
    <code code="8648-8" displayName="HOSPITAL COURSE"
      codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <title>HOSPITAL COURSE</title>
    <text>
       The patient was admitted and started on Lovenox and nitroglycerin paste.
       The patient had serial cardiac enzymes and was ruled out for myocardial
       infarction. The patient underwent a dual isotope stress test. There was
       no evidence of reversible ischemia on the Cardiolite scan. The patient
       has been ambulated. The patient had a Holter monitor placed but the
       report is not available at this time. The patient has remained
       hemodynamically stable. Will discharge.
    </text>
  </section>
</component>
```

4.2.3 Hospital Discharge Diagnosis 11535-2

This section is derived from the IHE Discharge Diagnosis section; the difference is the Problem Concern entry is optional here.

The Discharge Diagnosis section describes the relevant problems or diagnoses that occurred during the hospitalization or that need to be followed after hospitalization. This section includes an optional entry to record patient conditions.

CONF-DS-24: This section **SHALL** include the templateId for the Hospital Discharge Diagnosis section (2.16.840.1.113883.10.20.16.2.1).

CONF-DS-25: The value for Section/code **SHALL** be 11535-2 Hospital Discharge Diagnosis.

CONF-DS-26: This section **SHOULD** include the templateId for the IHE Hospital Discharge Diagnosis section (1.3.6.1.4.1.19376.1.5.3.1.3.7)

CONF-DS-27: If a Problem Entry is present, the section **SHALL** include an IHE Problem Concern entry (templateId 1.3.6.1.4.1.19376.1.5.3.1.4.5.2)

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Figure 9: Hospital discharge diagnosis example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.16.2.1"/>
    <id extension="9937012" root="2.16.840.1.113883.19"/>
    <code code="11535-2" displayName="HOSPITAL DISCHARGE DX"
      codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <title>HOSPITAL DISCHARGE DIAGNOSIS</title>
    <text>
       Unspecified chest pain
    </text>
  </section>
</component>
```

4.2.4 Hospital Discharge Medications 10183-2

This section is derived from the IHE Hospital Discharge Medications section; the difference is the Medications entry is optional here.

The Hospital Discharge Medications section defines the medications that the patient is intended to take (or stop) after discharge. At a minimum, the currently active medications should be listed with an entire medication history as an option. The section may also include a patient's prescription history and indicate the source of the medication list, for example, from a pharmacy system versus from the patient.

CONF-DS-28: This section **SHALL** include the `templateId` for the Hospital Discharge Medications (`2.16.840.1.113883.10.20.16.2.2`).

CONF-DS-29: The value for `Section/code` **SHALL** be `10183-2 Hospital Discharge Medications.`

CONF-DS-30: If a Medication entry is present, the section **SHALL** include the `templateId` for the IHE Hospital Discharge Medications section (`1.3.6.1.4.1.19376.1.5.3.1.3.22`).

CONF-DS-31: A Discharge Summary **SHALL NOT** include more than one Hospital Discharge Medications section (`templateId 1.3.6.1.4.1.19376.1.5.3.1.3.22`).

CONF-DS-32: The Hospital Discharge Medications section **SHOULD** include an IHE Medication entry (`templateId 1.3.6.1.4.1.19376.1.5.3.1.4.7`)

Figure 10: Hospital discharge medications example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.16.2.2"/>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.22"/>
    <code codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC"
          code="10183-2"
          displayName=" HOSPITAL DISCHARGE MEDICATIONS "/>
    <title>HOSPITAL DISCHARGE MEDICATIONS</title>
    <text>
    ...
    </text>
```


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```
<entry typeCode="DRIV">
  <substanceAdministration classCode="SBADM" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.1.24"/>
    <!-- CCD Medication activity template -->
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.4.7"/>
    <!-- IHE  Medications Template-->
    <id root="cdbd5b05-6cde-11db-9fe1-0800200c7a56"/>
    <statusCode code="active"/>
    <effectiveTime xsi:type="PIVL_TS">
        <period value="24" unit="h"/>
    </effectiveTime>
    <routeCode code="PO" codeSystem="2.16.840.1.113883.5.112"
        codeSystemName="RouteOfAdministration"/>
    <doseQuantity value="1"/>
    <consumable>
        <manufacturedProduct>
            <templateId root="2.16.840.1.113883.10.20.1.53"/>
            <!-- Product template -->
            <manufacturedMaterial>
                <code code="311354" codeSystem="2.16.840.1.113883.6.88"
                      codeSystemName="RX NORM"
                      displayName="Lisinopril 5 MG Oral Tablet">
                      <originalText>Lisinopril 5 MG Oral Tablet</originalText>
                </code>
                <name>Prinivi</name>
            </manufacturedMaterial>
        </manufacturedProduct>
    </consumable>
  </substanceAdministration>
</entry>
    <entry>
      ...
    </entry>
    ...

  </section>
</component>
```

4.2.5 Plan of Care 18776-5

All constraints from this section are from CCD; see the CCD Plan of Care section for conformance requirements.

The Plan of Care section records data defining pending orders, interventions, encounters, services, and procedures for the patient. It is limited to prospective, unfulfilled, or incomplete orders and requests only. All active, incomplete, or pending orders, appointments, referrals, procedures, services, or any other pending event of clinical significance to the current and ongoing care of the patient should be listed, unless constrained due to issues of privacy. [CCD]

The Plan of Care section also records information regarding goals and clinical reminders. Clinical reminders are placed here to provide prompts that may be used for disease prevention, disease management, patient safety, and healthcare quality improvements, including widely accepted performance measures. [CCD]

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CONF-DS-33: This section **SHALL** include the `templateId` for the CCD Plan of Care section (`2.16.840.1.113883.10.20.1.10`).

Figure 11: Plan of care example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.10"/>
    <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="TREATMENT PLAN"/>
    <title>Plan of Care</title>
    <text>
      <paragraph>Acetaminophen with codeine prn for pain.</paragraph>
      <paragraph>Stay off the foot.  Keep foot elevated, and use
      supplied air splint and crutches.</paragraph>
      <paragraph>Advise follow-up with orthopedist if not
      significantly better in 5 days.</paragraph>
    </text>
  </section>
</component>
```

4.3 Optional Sections

A Discharge Summary may include sections not specified in this guide. The sections described below, if present, must conform to the requirements shown.

CONF-DS-34: A Discharge Summary **SHOULD** include the sections listed as Optional (O) in the LOINC Codes for Sections table.

4.3.1 Discharge Diet 42344-2

All constraints from this section are from the IHE Discharge Diet section; all conformance requirements are included below.

This section records a narrative description of the expectations for diet, including proposals, goals, and order requests for monitoring, tracking, or improving the dietary control of the patient, used in a discharge from a facility such as an emergency department, hospital, or nursing home. [IHE]

CONF-DS-35: This section **SHALL** include the `templateId` for the IHE Discharge Diet section (`1.3.6.1.4.1.19376.1.5.3.1.3.33`).

CONF-DS-36: A `section/code` element **SHALL** be present where the value of `@code` is `42344-2 (Discharge Diet) LOINC` **STATIC**.

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Figure 12: Discharge diet example

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.33"/>
    <code code="42344-2" displayName="DISCHARGE DIET"
      codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <title>DISCHARGE DIET</title>

    <text>
      Low-fat, low-salt, cardiac diet.
    </text>
  </section>
</component>
```

4.3.2 Family History 10157-6

All constraints from this section are from CCD; see the CCD Family History section for conformance requirements.

This section defines the patient's genetic relatives in terms of relevant health-risk factors that have a potential impact on the patient's health care profile. [CCD]

CONF-DS-37: This section **SHALL** include the `templateId` for the CCD Family History section (`2.16.840.1.113883.10.20.1.4`).

Figure 13: Family history example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.4"/>
    <code code="10157-6" codeSystem="2.16.840.1.113883.6.1"
         codeSystemName="LOINC"
         displayName="HISTORY OF FAMILY MEMBER DISEASES"/>
    <title>FAMILY HISTORY</title>
    <text>None recorded.</text>
  </section>
</component>
```

4.3.3 Functional Status 47420-5

All constraints from this section are from CCD; see the CCD Functional Status section for conformance requirements.

The Functional Status section must include a narrative description of the patient's ability to perform activities of daily living.

CONF-DS-38: This section **SHALL** include the `templateId` for the CCD Functional Status section (`2.16.840.1.113883.10.20.1.5`).

As noted in CCD, functional status describes the patient's status of normal functioning at the time the Discharge Summary was created; they include:

- Ambulatory ability
- Mental status or competency

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- Activities of Daily Living (ADLs), including bathing, dressing, feeding, grooming
- Home / living situation having an effect on the health status of the patient
- Ability to care for self
- Social activity, including issues with social cognition, participation with friends and acquaintances other than family members
- Occupation activity, including activities partly or directly related to working, housework or volunteering, family and home responsibilities, or activities related to home and family
- Communication ability, including issues with speech, writing, or cognition required for communication
- Perception, including sight, hearing, taste, skin sensation, kinesthetic sense, proprioception, or balance

Any deviation from normal function displayed by the patient and recorded in the clinical record should be included. Of particular interest are those limitations that would in any way interfere with self care or the medical therapeutic process. In addition, any improvement, change in status, or notation that the patient has normal functioning status may also be included. [CCD]

Figure 14: Functional status example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.5"/>
    <id root="2.16.840.1.113883.19" extension="32452353"/>
    <code code="47420-5" displayName="FUNCTIONAL STATUS ASSESSMENT"
      codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <title>FUNCTIONAL STATUS</title>
    <text>
      Ambulatory
    </text>
  </section>
</component>
```

4.3.4 History of Present Illness 10164-2

All constraints from this section are from the IHE History of Present Illness section; all conformance requirements are included below.

This section describes the history related to the patient's current complaints, problems, or diagnoses. It records the historical details leading up to and pertaining to the patient's current complaint or reason for seeking medical care.

CONF-DS-39: This section **SHALL** include the `templateId` for the IHE History of Present Illness section (`1.3.6.1.4.1.19376.1.5.3.1.3.4`).

CONF-DS-40: A Discharge Summary **SHOULD** include exactly one and **SHOULD NOT** include more than one History of Present Illness section (`templateId 1.3.6.1.4.1.19376.1.5.3.1.3.4`).

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CONF-DS-41: A `section/code` element **SHALL** be present where the value of `@code` is `10164-2 (History of Present Illness) LOINC` **STATIC**.

Figure 15: History of present illness example

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.4"/>
    <code code="10164-2" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="HISTORY OF PRESENT ILLNESS"/>
    <title>HISTORY OF PRESENT ILLNESS</title>
    <text>Patient slipped and fell on ice, twisting her ankle as she fell.
    </text>
  </section>
</component>
```

4.3.5 Hospital Discharge Physical 10184-0

All constraints from this section are from the IHE Hospital Discharge Physical section; all conformance requirements are included below.

The Hospital Discharge Physical section records a narrative description of the patient's physical findings.

CONF-DS-42: This section **SHALL** include the `templateId` for the IHE Hospital Discharge Physical section (`1.3.6.1.4.1.19376.1.5.3.1.3.26`).

CONF-DS-43: The value for `Section/code` **SHALL** be `10184-0 Hospital Discharge Physical 2.16.840.1.113883.6.1 LOINC` **STATIC**.

Figure 16: Hospital discharge physical example

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.26"/>
    <code code="10184-0" displayName="HOSPITAL DISCHARGE PHYSICAL"
      codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <title>HOSPITAL DISCHARGE PHYSICAL</title>
    <text>
        GENERAL: Well-developed, slightly obese man.
        NECK: Supple, with no jugular venous distension.
        HEART: Intermittent tachycardia without murmurs or gallops.
        PULMONARY: Decreased breath sounds, but no clear-cut
          rales or wheezes.
        EXTREMITIES: Free of edema.
    </text>
  </section>
</component>
```


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4.3.6 Hospital Discharge Studies Summary 11493-4

This section is derived from the CCD Results section; the difference is the LOINC section code and title.

As noted in CCD, this section records the results of observations generated by laboratories, imaging procedures, and other procedures. The scope includes hematology, chemistry, serology, virology, toxicology, microbiology, plain x-ray, ultrasound, CT, MRI, angiography, echocardiography, nuclear medicine, pathology, and procedure observations. This section often includes notable results such as abnormal values or relevant trends, and could record all results for the period of time being documented.

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

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

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

Note that there are discrepancies between CCD and the lab domain model, such as the `effectiveTime` in specimen collection.

This and other CDA implementation guides will be reconciled to conform with the lab domain at a future date.

CONF-DS-44: This section **SHALL** include the `templateId` for the Hospital Discharge Studies Summary section (`2.16.840.1.113883.10.20.16.2.3`).

CONF-DS-45: The value for `Section/code` **SHALL** be `11493-4 Hospital Discharge Studies Summary 2.16.840.1.113883.6.1 LOINC` **STATIC**.

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Figure 17: Hospital discharge studies summary example

```
<component>
<section>
  <templateId root="2.16.840.1.113883.10.20.16.2.3"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
        code="11493-4" displayName="HOSPITAL DISCHARGE STUDIES SUMMARY"/>
  <title>HOSPITAL DISCHARGE STUDIES SUMMARY</title>
  <text>
    <table>
      <tbody>
        <tr><td colspan="2">LABORATORY INFORMATION</td></tr>
        <tr><td colspan="2">Chemistries and drug levels</td></tr>
        <tr><td>Sodium</td><td>138</td></tr>
        ...
        <tr><td colspan="2">ELECTROCARDIOGRAM (EKG) INFORMATION</td></tr>
        <tr><td>EKG</td><td>Sinus rhythm without acute changes.</td></tr>
      </tbody>
    </table>
  </text>
</section>
</component>
```

4.3.7 Immunizations 11369-6

All constraints from this section are from CCD; see the CCD Immunizations section for conformance requirements.

The Immunizations section provides a patient's pertinent immunization history. The Immunizations section is optional; however, it is recommended when such information is available.

CONF-DS-46: This section **SHALL** include the `templateId` for the CCD Immunizations section (`2.16.840.1.113883.10.20.1.6`).

Figure 18: Immunizations example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.6"/>
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="11369-6" displayName="HISTORY OF IMMUNIZATIONS"/>
    <title>IMMUNIZATIONS</title>
    <text>
      Tetanus and diphtheria toxoids, IM
      Completed 1997
    </text>
  </section>
</component>
```


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4.3.8 Past Medical History 11348-0

All constraints from this section are from the History and Physical Note; see the H&P Past Medical History section for conformance requirements.

This section describes the past medical history for the patient. It may record information about past procedures or other illnesses that might have a bearing on the patient's current illness. Since past medical history can include past surgical history and other procedures, the Procedures section may be included under the Past Medical History section or it may stand alone as its own section. Similarly, problems can be recorded in a standalone Problems section or in a nested Problems section. Wherever used, procedures and problems should conform to the CCD template for CDA entries cited in the Problems section. [H&P Note]

CONF-DS-47: This section **SHALL** include the `templateId` for the H&P Past Medical History section (`2.16.840.1.113883.10.20.2.9`).

CONF-DS-48: A Discharge Summary **SHALL** include exactly one and **SHALL NOT** include more than one H&P Past Medical History section (`templateId 2.16.840.1.113883.10.20.2.9`).

Figure 19: Past medical history example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.2.9"/>
    <code code="11348-0" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC"
          displayName="HISTORY OF PAST ILLNESS"/>
    <title>PAST MEDICAL HISTORY</title>
    <text>No other recent fractures.</text>
  </section>
</component>
```

4.3.9 Procedures 47519-4

All constraints from this section are from CCD; see CCD Procedures for conformance requirements.

This section is optional and the information recorded in it may also appear in the Past Medical History section or the History of Present Illness section. When a problem list is inserted into either of these sections, it should use the CCD template. Past Surgical History can also be included in this section.

CONF-DS-49: Procedures **MAY** be in its own section or it **MAY** be included as a subsection within the Past Medical History section.

CONF-DS-50: This section **SHALL** include the `templateId` for the CCD Procedures section (`2.16.840.1.113883.10.20.1.12`).

The sample representation below shows the name, date, and the location in three columns. The section may include free-form text or lists to represent this information.

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Figure 20: Procedures example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.12"/>
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="47519-4" displayName="HISTORY OF PROCEDURES"/>
    <title>PROCEDURES</title>
    <text>
      <table border="1">
        <thead>
         <tr>
           <th>Procedure</th>
           <th>Date</th>
           <th>Location</th>
         </tr>
        </thead>
        <tbody>
          <tr><td>Laparoscopic Cholecystectomy</td><td>9/28/2002</td>
           <td>City Hospital</td>
          </tr>
          <tr><td>Cesarean Section</td><td>3/22/2002</td>
           <td>Community Hospital</td>
          </tr>
        </tbody>
      </table>
    </text>
  </section>
</component>
```

4.3.10 Problems 11450-4

All constraints from this section are from CCD; see CCD Problems for CCD conformance requirements.

This section lists and describes all relevant clinical problems at the time the Discharge Summary is generated. At a minimum, all pertinent current and historical problems should be listed. [CCD]

This section is optional and the information recorded in it may also appear in the Past Medical History section or the History of Present Illness section. When a problem list is inserted into either of these sections, it should use the CCD template.

CONF-DS-51: This section **SHALL** include the `templateId` for the CCD Problems section (`2.16.840.1.113883.10.20.1.11`).

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Figure 21: Problems example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.11"/>
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="11450-4" displayName="PROBLEMS"/>
    <title>PROBLEMS</title>
     <text>
      <table border="1" width="100%">
        <thead>
          <tr>
            <th>Condition</th>
            <th>Effective Dates</th>
            <th>Condition Status</th>
          </tr>
        </thead>
        <tbody>
          <tr><td>Asthma</td><td>1950</td><td>Active</td></tr>
          <tr><td>Pneumonia</td><td>Jan 1997</td><td>Resolved</td></tr>
        </tbody>
      </table>
    </text>
  </section>
</component>
```

4.3.11 Reason for Visit /Chief Complaint 29299-5/10154-3/46239-0

All constraints from this section are from the History and Physical Note; see the H&P Reason for Visit/Chief Complaint section for conformance requirements.

This section records the patient's chief complaint (the patient's own description) and/or the reason for the patient's visit (the provider's description of the reason for visit). Local policy determines whether the information is divided into two sections or recorded in one section serving both purposes. [H&P Note]

CONF-DS-52: This section **SHALL** include the `templateId` for the H&P Reason for Visit/Chief Complaint section (`2.16.840.1.113883.10.20.2.8`).

Figure 22: Reason for visit example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.2.8"/>
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
          code="46239-0" displayName="REASON FOR VISIT"/>
    <title>REASON FOR VISIT</title>
    <text>
      <paragraph>Twisted ankle.</paragraph>
    </text>
  </section>
</component>
```


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4.3.12 Review of Systems 10187-3

All constraints from this section are from the IHE Review of Systems section; all conformance requirements are included below.

The review of systems is a relevant collection of symptoms and functions systematically gathered by a clinician. It includes symptoms the patient is currently experiencing, some of which were not elicited during the history of present illness, as well as a potentially large number of pertinent negatives, e.g., symptoms that the patient denied experiencing when asked. [H&P Note]

CONF-DS-53: This section **SHALL** include the `templateId` for the Review of Systems section (`1.3.6.1.4.1.19376.1.5.3.1.3.18`).

CONF-DS-54: A Discharge Summary **SHALL NOT** include more than one Review of Systems section (`templateId 1.3.6.1.4.1.19376.1.5.3.1.3.18`).

CONF-DS-55: A `section/code` element **SHALL** be present where the value of `@code 10187-3 (REVIEW OF SYSTEMS) LOINC` **STATIC**.

Figure 23: Review of systems example

```
<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"/>
    <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
    <title>REVIEW OF SYSTEMS</title>
    <text>Review of systems otherwise negative.</text>
  </section>
</component>
```

4.3.13 Social History 29762-2

All constraints from this section are from the CCD; see CCD Social History section for CCD conformance requirements.

This section defines the patient's occupational, personal (i.e., lifestyle), social, environmental history, and health risk factors, as well as administrative data such as marital status, race, ethnicity, and religious affiliation. Social history can have a significant influence on a patient's physical, psychological, and emotional health and well being, so should be considered in the development of a complete health record. [CCD]

CONF-DS-56: This section **SHALL** include the `templateId` for the CCD Social History section (`2.16.840.1.113883.10.20.1.15`).

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Figure 24: Social history example

```
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.1.15"/>
    <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
         codeSystemName="LOINC" displayName="SOCIAL HISTORY"/>
    <title>SOCIAL HISTORY</title>
    <text>
          <paragraph>Drug History: None.</paragraph>
          <paragraph>Smoking History: 1 pack per day 1972-2000,
               none 2001-present.</paragraph>
    </text>
  </section>
</component>
```

4.3.14 Vital Signs 8716-3

All constraints from this section are from the H&P Note; see the H&P Vital Signs section for conformance requirements.

The Vital Signs section records vital signs taken during the admission. Measurements may include some or all of the following: blood pressure, heart rate, respiratory rate, body temperature, and pulse oximetry. Comments on relative trends may be appropriate, but not required. This section can be a first-level section or nested under Hospital Discharge Physical. [H&P Note]

CONF-DS-57: This section **SHALL** include the `templateId` for the H&P Vital Signs section (`2.16.840.1.113883.10.20.2.4`).

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5 REFERENCES

- ASTM's Standard Specifications for Healthcare Document Formats (E2184.02) (Headings and subheadings used in the health care industry and associated with specific report types). http://www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/REDLINE_PAGES/E2184.htm?L+memberstore+psnw2999
- LOINC®: Logical Observation Identifiers Names and Codes, Regenstrief Institute. http://www.loinc.org
- CCD: Continuity of Care Document (CCD) ASTM/HL7. http://www.hl7.org/documentcenter/ballots/2007JAN/downloads/CDAR2_IMPL_CCD_I2_2007JAN.zip
- CDA: Clinical Document Architecture Release 2: Clinical Document Architecture (CDA) Release 2, May 2005. http://www.hl7.org/v3ballot/html/infrastructure/cda/cda.htm
- Health Information Technology Standards Panel (HITSP) Constructs, including the Encounter Document Using IHE Medical Summary (XDS-MS) Component (C48). http://www.hitsp.org/
- HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes, DSTU Release 1. http://www.hl7.org/documentcenter/ballots/2007SEP/support/CDAR2_HPRPT_DSTU_2008AUG.zip
- HL7 Implementation Guide for CDA Release 2: Consultation Note DSTU Release 1. http://www.hl7.org/documentcenter/ballots/2007SEP/support/CDAR2_CONSNOTE_DSTU_2008AUG.zip
- HL7 Implementation Guide for CDA Release 2: Operative Note DSTU Release 1
- IHE XDS-MS: IHE Patient Care Coordination, Technical Framework, Volume 1 Revision 5.0 and Volume2 Revision 5.0 2009-08-10. http://www.ihe.net/Technical_Framework/upload/IHE_PCC_TF_5-0_Vol_1_-2009-08-10.pdf http://www.ihe.net/Technical_Framework/upload/IHE_PCC_TF_50_Vol_2_2009-08-10.pdf
- Joint Commission Requirements for Discharge Summary (JCAHO IM.6.10 EP7). See http://www.jointcommission.org/NR/rdonlyres/C9298DD0-6726-4105-A007-FE2C65F77075/0/CMS_New_Revised_HAP_FINAL_withScoring.pdf

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APPENDIX A — ACRONYMS AND ABBREVIATIONS

ADL	Activity of Daily Living
AHDI	Association for Healthcare Documentation Integrity
AHIMA	American Health Information Management Association
CCD	Continuity of Care Document
CDA	Clinical Document Architecture
CRS	Care Record Summary
DSTU	Draft Standard for Trial Use
EHR	Electronic health record
H&P	History and Physical
HITSP	Health Information Technology Standards Panel
HL7	Health Level Seven
IHE	Integrating the Healthcare Enterprise
IHTSDO	International Health Terminology Standard Development Organisation
MTIA	Medical Transcription Industry Association
NUBC	National Uniform Billing Committee
PCC	Patient Care Coordination
PHR	Personal Health Record
RIM	Reference Information Model
SDO	Standards Development Organization
SDWG	Structured Documents Working Group
XML	Extensible Markup Language

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APPENDIX B — HEADER UPDATES IN CRS RELEASE 2

Table 4: Header Updates in CRS R2

Added		
General Header Constraints Template (CONF-HP-2)		Requires namespace of urn:hl7-org:v3
General Header Constraints Template (CONF-HP-15)		Requires fixed US realm
CONF-DS-3		Requires ClinicalDocument/code be selected from Value Set `2.16.840.1.113883.11.20.4.1` DischargeSummaryDocumentTypeCode **DYNAMIC**.
General Header Constraints Template (CONF-HP-22)		Requires ClinicalDocument/Title
General Header Constraints Template (CONF-HP-23)		Requires ClinicalDocument/effectiveTime
CONF-DS-10		Requires ClinicalDocument/effectiveTime with both High and Low elements
General Header Constraints Template (CONF-HP-33)		Additional guidance on how to handle patient/administrativeGenderCode if unknown
General Header Constraints Template (CONF-HP-36)		Specifies the providerOrganization MAY be present
General Header Constraints Template (CONF-HP-41)		Specifies the time element MAY be present on dataEnterer
General Header Constraints Template (CONF-HP-42)		Specifies informant element MAY be present
General Header Constraints Template (CONF-HP-49)		Adds SHOULD on relatedEntity/code to indicate type of provider
Changed		
CRS R1	**CRS R2**	**Update**
L1-11	CONF-DS-1	Conformance is recorded using template root rather than root + extension.
L1-36	General Header Constraints Template (CONF-HP-45)	Adds allowable values CAREGIVER, AGNT from the RoleClass vocabulary.
L1-45	CONF-DS-5	Adds allowable classCodes CAREGIVER, AGNT

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Dropped	
L1-34	softwareName is no longer required on assignedAuthoringDevice
L1-40	relatedEntity/code is no longer required to be drawn from SNOMED CT
L1-47-L1-49	Guidance for billing related participant constraints are no longer included in the header. Implementers are encouraged to use the CCD Payers section.
L1-50 – L1-60	Guidance on the use of documentationOf was not included in CRS R2 since it was intend for Transfer of Care, not the Discharge Summary.

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APPENDIX C — TEMPLATE IDS IN THIS GUIDE

Table 5: TemplateIds in This Guide

Template ID	Source	Description
2.16.840.1.113883.10.20.1.2	CCD	Alerts section (used here for Allergies)
1.3.6.1.4.1.19376.1.5.3.1.3.33	IHE	Discharge Diet section
2.16.840.1.113883.10.20.16.2	Discharge Summary	Discharge Summary header constraints
2.16.840.1.113883.10.20.1.4	CCD	Family History section
2.16.840.1.113883.10.20.1.5	CCD	Functional Status section
2.16.840.1.113883.10.20.3	H&P	General Header constraints
1.3.6.1.4.1.19376.1.5.3.1.3.4	IHE	History of Present Illness section
1.3.6.1.4.1.19376.1.5.3.1.3.5	IHE	Hospital Course section
1.3.6.1.4.1.19376.1.5.3.1.3.7	IHE	Hospital Discharge Diagnosis section
2.16.840.1.113883.10.20.16.2.1	Discharge Summary	Hospital Discharge Diagnosis section
1.3.6.1.4.1.19376.1.5.3.1.3.22	IHE	Hospital Discharge Medications section
2.16.840.1.113883.10.20.16.2.2	Discharge Summary	Hospital Discharge Medications section
1.3.6.1.4.1.19376.1.5.3.1.3.26	IHE	Hospital Discharge Physical section
2.16.840.1.113883.10.20.16.2.3	Discharge Summary	Hospital Discharge Studies Summary
2.16.840.1.113883.10.20.1.6	CCD	Immunizations section
1.3.6.1.4.1.19376.1.5.3.1.4.7	IHE	Medication Entry
2.16.840.1.113883.10.20.2.9	H&P	Past Medical History Section
2.16.840.1.113883.10.20.1.10	CCD	Plan of Care section
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	IHE	Problem Concern Entry
2.16.840.1.113883.10.20.1.11	CCD	Problems section
2.16.840.1.113883.10.20.1.12	CCD	Procedures section
2.16.840.1.113883.10.20.2.8	H&P	Reason for Visit/Chief Complaint section
2.16.840.1.113883.10.20.1.31	CCD	Results Observation
2.16.840.1.113883.10.20.1.14	CCD	Results section
2.16.840.1.113883.10.20.4.10	Consultation Note	Review of Systems section
2.16.840.1.113883.10.20.1.15	CCD	Social History section
2.16.840.1.113883.10.20.2.4	H&P	Vital Signs

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APPENDIX D — DISCHARGE SUMMARY REQUIREMENTS

The Joint Commission requirements, from section 1.1 Purpose, map as follows.

Table 6: Section Requirements from the Joint Commission

Joint Commission Requirement	Section
Concise discharge summary that includes the reason for hospitalization	Chief Complaint, Reason for Admission
Procedures performed	Procedures
Care, treatment and services provided	Hospital Course
The patient's condition and disposition at discharge	This information can be inferred by the Discharge Summary report. Hospital Discharge Diagnosis is one key section.
Information provided to the patient and family	Discharge Diet, Hospital Discharge Medications, Plan of Care
Provisions for follow-up care	Plan of Care

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APPENDIX E — EXTERNALLY DEFINED CONSTRAINTS

This appendix lists all of the external conformance statements referenced from the body of this document. For a complete description of these constraints, please refer to the original specification they were derived from.

CCD Constraints

The following constraints are from the final publication of CCD dated April 1, 2007. Any discrepancy between this and the original is inadvertent and in all cases, the CCD source takes precedence.

Alerts (Template ID: 2.16.840.1.113883.10.20.1.2)

CCD-CONF-256: CCD **SHOULD** contain exactly one and **SHALL NOT** contain more than one Alerts section (templateId 2.16.840.1.113883.10.20.1.2). The Alerts section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more problem acts (templateId 2.16.840.1.113883.10.20.1.27). A problem act **SHOULD** include one or more alert observations (templateId 2.16.840.1.113883.10.20.1.18).

CCD-CONF-257: The absence of known allergies, adverse reactions, or alerts **SHALL** be explicitly asserted.

Family History (Template ID: 2.16.840.1.113883.10.20.1.4)

CCD-CONF-184: CCD **SHOULD** contain exactly one and **SHALL NOT** contain more than one Family History section (templateId 2.16.840.1.113883.10.20.1.4). The Family History section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more family history observations (templateId 2.16.840.1.113883.10.20.1.22), which **MAY** be contained within family history organizers (templateId 2.16.840.1.113883.10.20.1.23).

CCD-CONF-185: The Family History section **SHALL** contain **Section** / **code**.

CCD-CONF-186: The value for "**Section** / **code**" **SHALL** be "10157-6" "History of family member diseases" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-187: The Family History section **SHALL** contain **Section** / **title**.

CCD-CONF-188: **Section** / **title** **SHOULD** be valued with a case-insensitive language-insensitive text string containing "family history."

CCD-CONF-189: The Family History section **SHALL NOT** contain **Section** / **subject**.

CCD-CONF-190: A family history observation (templateId 2.16.840.1.113883.10.20.1.22) **SHALL** be represented with **Observation**.

CCD-CONF-191: The value for "**Observation** / **@moodCode**" in a family history observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-192: A family history observation **SHALL** contain at least one **Observation** / **id**.

CCD-CONF-193: A family history observation **SHALL** include exactly one **Observation** / **statusCode**.

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CCD-CONF-194: The value for "**Observation** / **statusCode**" in a family history observation **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-195: A family history observation **SHOULD** include Observation / effectiveTime. (See also CCD section 3.6.2.4, Representation of age).

CCD-CONF-196: A family history cause of death observation (templateId 2.16.840.1.113883.10.20.1.42) **SHALL** conform to the constraints of a family history observation (templateId 2.16.840.1.113883.10.20.1.22).

CCD-CONF-197: A family history cause of death observation **SHALL** contain one or more **entryRelationship** / **@typeCode**.

CCD-CONF-198: The value for at least one "**entryRelationship** / **@typeCode**" in a family history cause of death observation **SHALL** be "CAUS" "is etiology for" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC**, with a target family history observation of death.

CCD-CONF-199: A family history observation **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

CCD-CONF-200: A family history organizer (templateId 2.16.840.1.113883.10.20.1.23) **SHALL** be represented with Organizer.

CCD-CONF-201: The value for "**Organizer** / **@classCode**" in a family history organizer **SHALL** be "CLUSTER" 2.16.840.1.113883.5.6 ActClass **STATIC**.

CCD-CONF-202: The value for "**Organizer** / **@moodCode**" in a family history organizer **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-203: A family history organizer **SHALL** contain exactly one **Organizer** / **statusCode**.

CCD-CONF-204: The value for "**Organizer** / **statusCode**" in a family history organizer **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-205: A family history organizer **SHALL** contain one or more **Organizer** / **component**.

CCD-CONF-206: The target of a family history organizer **Organizer** / **component** relationship **SHOULD** be a family history observation, but **MAY** be some other clinical statement.

CCD-CONF-207: A family history observation act **MAY** contain exactly one problem status observation (templateId 2.16.840.1.113883.10.20.1.50) (see section *3.6.2.2 Representation of "status" values*).

CCD-CONF-208: A family history organizer **SHALL** contain exactly one **subject** participant, representing the family member who is the subject of the family history observations.

CCD-CONF-209: A family history observation not contained within a family history organizer **SHALL** contain exactly one **subject** participant, representing the family member who is the subject of the observation .

CCD-CONF-210: Where the subject of an observation is explicit in a family history observation code (e.g. SNOMED CT concept 417001009 "Family history of tuberous sclerosis"), the **subject** participant **SHALL** be equivalent to or further specialize the code.

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CCD-CONF-211: Where the subject of an observation is not explicit in a family history observation code (e.g. SNOMED CT concept 44054006 "Diabetes Mellitus type 2"), the **subject** participant **SHALL** be used to assert the affected relative.

CCD-CONF-212: A **subject** participant **SHALL** contain exactly one **RelatedSubject**, representing the relationship of the subject to the patient.

CCD-CONF-213: The value for "**RelatedSubject** / **@classCode**" **SHALL** be "PRS" "Personal relationship" 2.16.840.1.113883.5.110 RoleClass **STATIC**.

CCD-CONF-214: RelatedSubject **SHALL** contain exactly one **RelatedSubject** / **code**.

CCD-CONF-215: The value for "**RelatedSubject** / **code**" **SHOULD** be selected from ValueSet 2.16.840.1.113883.1.11.19579 FamilyHistoryRelatedSubjectCode **DYNAMIC** or 2.16.840.1.113883.1.11.20.21 FamilyHistoryPersonCode **DYNAMIC**.

CCD-CONF-216: Representation of a pedigree graph **SHALL** be done using **RelatedSubject** / **code** values (e.g. "great grandfather") to designate a hierarchical family tree.

CCD-CONF-217: RelatedSubject **SHOULD** contain exactly one RelatedSubject / subject.

CCD-CONF-218: RelatedSubject / subject **SHOULD** contain exactly one RelatedSubject / subject / administrativeGenderCode.

CCD-CONF-219: RelatedSubject / subject **SHOULD** contain exactly one RelatedSubject / subject / birthTime.

CCD-CONF-220: **RelatedSubject** / **subject** **MAY** contain exactly one **RelatedSubject** / **subject** / **sdtc:deceasedInd**. (See Section 7.4 Extensions to CDA R2 for details on representation of CDA extensions).

CCD-CONF-221: **RelatedSubject** / **subject** **MAY** contain exactly one **RelatedSubject** / **subject** / **sdtc:deceasedTime**. (See section ***7.4 Extensions to CDA R2*** for details on representation of CDA extensions).

CCD-CONF-222: The age of a relative at the time of a family history observation **SHOULD** be inferred by comparing **RelatedSubject** / **subject** / **birthTime with Observation** / **effectiveTime**.

CCD-CONF-223: The age of a relative at the time of death **MAY** be inferred by comparing **RelatedSubject** / **subject** / **birthTime** with **RelatedSubject** / **subject** / **sdtc:deceasedTime**.

CCD-CONF-224: The value for "**Observation** / **entryRelationship** / **@typeCode**" in a family history observation **MAY** be "SUBJ" "Subject" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC** to reference an age observation.

CCD-CONF-225: An age observation (templateId 2.16.840.1.113883.10.20.1.38) **SHALL** be represented with **Observation**.

CCD-CONF-226: The value for "**Observation** / **@classCode**" in an age observation **SHALL** be "OBS" 2.16.840.1.113883.5.6 ActClass **STATIC**.

CCD-CONF-227: The value for "**Observation** / **@moodCode**" in an age observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-228: The value for "**Observation** / **code**" in an age observation **SHALL** be "397659008" "Age" 2.16.840.1.113883.6.96 SNOMED CT **STATIC**.

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CCD-CONF-229: An age observation **SHALL** include exactly one **Observation** / **statusCode**.

CCD-CONF-230: The value for "**Observation** / **statusCode**" in an age observation **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-231: An age observation **SHALL** include exactly one **Observation** / **value**, valued using appropriate datatype.

Functional Status (Template ID: 2.16.840.1.113883.10.20.1.5)

CCD-CONF-123: **CCD SHOULD** contain exactly one and **SHALL NOT** contain more than one Functional status section (templateId 2.16.840.1.113883.10.20.1.5). The Functional status section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more problem acts (templateId 2.16.840.1.113883.10.20.1.27) and/or result organizers (templateId 2.16.840.1.113883.10.20.1.32).

CCD-CONF-124: The functional status section **SHALL** contain **Section / code.**

CCD-CONF-125: The value for "**Section / code**" **SHALL** be "47420-5" "Functional status assessment" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-126: The functional status section **SHALL** contain **Section / title.**

CCD-CONF-127: **Section / title SHOULD** be valued with a case-insensitive language-insensitive text string containing "functional status".

Immunizations (Template ID: 2.16.840.1.113883.10.20.1.6)

CCD-CONF-376: **CCD SHOULD** contain exactly one and **SHALL NOT** contain more than one Immunizations section (templateId 2.16.840.1.113883.10.20.1.6). The Immunizations section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more medication activities (templateId 2.16.840.1.113883.10.20.1.24) and / or supply activities (templateId 2.16.840.1.113883.10.20.1.34).

CCD-CONF-377: The Immunizations section **SHALL** contain **Section** / **code**.

CCD-CONF-378: The value for "**Section** / **code**" **SHALL** be "11369-6" "History of immunizations" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-379: The Immunizations section **SHALL** contain **Section** / **title**.

CCD-CONF-380: **Section** / **title SHOULD** be valued with a case-insensitive language-insensitive text string containing "immunization."

Plan of Care *(*Template ID 2.16.840.1.113883.10.20.1.10)

CCD-CONF-480: **CCD SHOULD** contain exactly one and **SHALL NOT** contain more than one Plan of Care section (templateId 2.16.840.1.113883.10.20.1.10). The Plan of Care section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHALL** include one or more plan of care activities (templateId 2.16.840.1.113883.10.20.1.25).

CCD-CONF-481: The plan of care section **SHALL** contain **Section / code**.

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CCD-CONF-482: The value for "**Section / code**" **SHALL** be "18776-5" "Treatment plan" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-483: The plan of care section **SHALL** contain **Section / title.**

CCD-CONF-484: **Section / title SHOULD** be valued with a case-insensitive language-insensitive text string containing "plan".

Problems (Template ID: 2.16.840.1.113883.10.20.1.11)

CCD-CONF-140: CCD **SHOULD** contain exactly one and **SHALL NOT** contain more than one Problems section (templateId 2.16.840.1.113883.10.20.1.11). The Problems section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more problem acts (templateId 2.16.840.1.113883.10.20.1.27). A problem act **SHOULD** include one or more problem observations (templateId 2.16.840.1.113883.10.20.1.28).

CCD-CONF-141: The Problems section **SHALL** contain **Section** / **code**.

CCD-CONF-142: The value for "**Section** / **code**" **SHALL** be "11450-4" "Problem list" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-143: The Problems section **SHALL** contain **Section** / **title**.

CCD-CONF-144: **Section** / **title SHOULD** be valued with a case-insensitive language-insensitive text string containing "problems."

CCD-CONF-145: A problem act (templateId 2.16.840.1.113883.10.20.1.27) **SHALL** be represented with **Act**.

CCD-CONF-146: The value for "**Act**/ **@classCode**" in a problem act **SHALL** be "ACT" 2.16.840.1.113883.5.6 ActClass **STATIC**.

CCD-CONF-147: The value for "**Act**/ **@moodCode**" in a problem act **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-148: A problem act **SHALL** contain at least one **Act**/ **id**.

CCD-CONF-149: The value for "**Act**/ **code** / **@NullFlavor**" in a problem act **SHALL** be "NA" "Not applicable" 2.16.840.1.113883.5.1008 NullFlavor **STATIC**.

CCD-CONF-150: A problem act **MAY** contain exactly one **Act**/ **effectiveTime**, to indicate the timing of the concern (e.g. the interval of time for which the problem is a concern).

CCD-CONF-151: A problem act **SHALL** contain one or more **Act**/ **entryRelationship**.

CCD-CONF-152: A problem act **MAY** reference a problem observation, alert observation (see section ***3.9 Alerts***) or other clinical statement that is the subject of concern, by setting the value for "**Act**/ **entryRelationship** / **@typeCode**" to be "SUBJ" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC**.

CCD-CONF-153: The target of a problem act with A**ct** / **entryRelationship** / **@typeCode="SUBJ" SHOULD** be a problem observation (in the Problems section) or alert observation (in the Alerts section, see section ***3.9 Alerts***), but **MAY** be some other clinical statement.

CCD-CONF-154: A problem observation (templateId 2.16.840.1.113883.10.20.1.28) **SHALL** be represented with **Observation**.

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CCD-CONF-155: The value for "**Observation** / **@moodCode**" in a problem observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-156: A problem observation **SHALL** include exactly one **Observation** / **statusCode**.

CCD-CONF-157: The value for "**Observation** / **statusCode**" in a problem observation **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-158: A problem observation **SHOULD** contain exactly one **Observation** / **effectiveTime**, to indicate the biological timing of condition (e.g. the time the condition started, the onset of the illness or symptom, the duration of a condition).

CCD-CONF-159: The value for "**Observation** / **code**" in a problem observation **MAY** be selected from ValueSet 2.16.840.1.113883.1.11.20.14 ProblemTypeCode **STATIC** 20061017.

CCD-CONF-160: The value for "**Observation** / **entryRelationship** / **@typeCode**" in a problem observation **MAY** be "SUBJ" "Subject" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC** to reference an age observation (templateId 2.16.840.1.113883.10.20.1.38).

CCD-CONF-161: A problem observation **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

CCD-CONF-162: A problem observation **MAY** contain exactly one problem status observation.

CCD-CONF-163: A problem status observation (templateId 2.16.840.1.113883.10.20.1.50) **SHALL** be a conformant status observation (templateId 2.16.840.1.113883.10.20.1.57) (as defined in section *5.1 "Type" and "Status" values*).

CCD-CONF-164: The value for "**Observation** / **value**" in a problem status observation **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.20.13 ProblemStatusCode **STATIC** 20061017.

CCD-CONF-165: A problem observation **MAY** contain exactly one problem healthstatus observation.

CCD-CONF-166: A problem healthstatus observation (templateId 2.16.840.1.113883.10.20.1.51) **SHALL** be a conformant status observation (templateId 2.16.840.1.113883.10.20.1.57) (as defined in section *5.1 "Type" and "Status" values*), except that the value for "**Observation** / **code**" in a problem healthstatus observation **SHALL** be "11323-3" "Health status" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-167: The value for "**Observation** / **value**" in a problem healthstatus observation **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.20.12 ProblemHealthStatusCode **STATIC** 20061017.

CCD-CONF-168: A problem act **MAY** contain exactly one episode observation.

CCD-CONF-169: An episode observation (templateId 2.16.840.1.113883.10.20.1.41) **SHALL** be represented with **Observation**.

CCD-CONF-170: The value for "**Observation** / **@classCode**" in an episode observation **SHALL** be "OBS" 2.16.840.1.113883.5.6 ActClass **STATIC**.

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CCD-CONF-171: The value for "**Observation** / **@moodCode**" in an episode observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-172: An episode observation **SHALL** include exactly one **Observation** / **statusCode**.

CCD-CONF-173: The value for "**Observation** / **statusCode**" in an episode observation **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-174: The value for "**Observation** / **Code**" in an episode observation **SHOULD** be "ASSERTION" 2.16.840.1.113883.5.4 ActCode **STATIC**.

CCD-CONF-175: "**Observation** / **value**" in an episode observation **SHOULD** be the following SNOMED CT expression:

<value xsi:type="CD" code="404684003"
codeSystem="2.16.840.1.113883.6.96" displayName="Clinical finding">
<qualifier>
<name code="246456000" displayName="Episodicity" / >
<value code="288527008" displayName="New episode" / >
< / qualifier>
< / value>

CCD-CONF-176: An episode observation **SHALL** be the source of exactly one **entryRelationship** whose value for "**entryRelationship** / **@typeCode**" is "SUBJ" "Has subject" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC** . This is used to link the episode observation to the target problem act or social history observation.

CCD-CONF-177: An episode observation **MAY** be the source of one or more **entryRelationship** whose value for "**entryRelationship** / **@typeCode**" is "SAS" "Starts after start" 2.16.840.1.113883.5.1002 ActRelationshipType **STATIC**. The target of the **entryRelationship SHALL** be a problem act or social history observation. This is used to represent the temporal sequence of episodes.

CCD-CONF-178: Patient awareness (templateId 2.16.840.1.113883.10.20.1.48) of a problem, observation, or other clinical statement **SHALL** be represented with participant.

CCD-CONF-179: A problem act **MAY** contain exactly one patient awareness.

CCD-CONF-180: A problem observation **MAY** contain exactly one patient awareness.

CCD-CONF-181: The value for "**participant** / **@typeCode**" in a patient awareness **SHALL** be "SBJ" "Subject" 2.16.840.1.113883.5.90 ParticipationType **STATIC**.

CCD-CONF-182: Patient awareness **SHALL** contain exactly one **participant** / **awarenessCode.**

CCD-CONF-183: Patient awareness **SHALL** contain exactly one **participant** / **participantRole** / **id**, which **SHALL** have exactly one value, which **SHALL** also be present in **ClinicalDocument** / **recordTarget** / **patientRole** / **id**.

Procedures (Template ID: 2.16.840.1.113883.10.20.1.12)

Note: ASTM CCR's notion of "procedure" is broader than that specified by the HL7 Version 3 RIM. Therefore, this section uses several RIM classes (**Act**, **Observation**, **Procedure**) to represent CCR's procedure objects.

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CCD-CONF-422: **CCD SHOULD** contain exactly one and **SHALL NOT** contain more than one Procedures section (templateId 2.16.840.1.113883.10.20.1.12). The Procedures section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more procedure activities (templateId 2.16.840.1.113883.10.20.1.29).

CCD-CONF-423: The procedure section **SHALL** contain **Section / code**.

CCD-CONF-424: The value for "**Section / code**" **SHALL** be "47519-4" "History of procedures" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-425: The procedure section **SHALL** contain **Section / title.**

CCD-CONF-426: **Section / title SHOULD** be valued with a case-insensitive language-insensitive text string containing "procedures."

CCD-CONF-427: A procedure activity (templateId 2.16.840.1.113883.10.20.1.29) **SHALL** be represented with **Act**, **Observation**, or **Procedure**.

CCD-CONF-428: The value for "**[Act | Observation | Procedure] / @moodCode**" in a procedure activity **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-420: A procedure activity **SHALL** contain at least one **[Act | Observation | Procedure] / id**.

CCD-CONF-430: A procedure activity **SHALL** contain exactly one **[Act | Observation | Procedure] / statusCode.**

CCD-CONF-431: The value for "**[Act | Observation | Procedure]** / statusCode" in a procedure activity **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.20.15 ProcedureStatusCode **STATIC** 20061017.

CCD-CONF-432: A procedure activity **SHOULD** contain exactly one **[Act | Observation | Procedure] / effectiveTime**.

CCD-CONF-433: A procedure activity **SHALL** contain exactly one **[Act | Observation | Procedure] / code**.

CCD-CONF-434: The value for **"[Act | Observation | Procedure] / code**" in a procedure activity **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12), ICD9 Procedures (codeSystem 2.16.840.1.113883.6.104), ICD10 Procedure Coding System (codeSystem 2.16.840.1.113883.6.4).

CCD-CONF-435: A procedure activity **MAY** contain one or more **[Observation | Procedure] / methodCode** if the method is not inherent in **[Observation | Procedure] / code** or if there is a need to further specialize the method in **[Observation | Procedure] / code. [Observation | Procedure] / methodCode SHALL NOT** conflict with the method inherent in **[Observation | Procedure] / code.**

CCD-CONF-436A: procedure activity **MAY** contain one or more **[Observation | Procedure] / targetSiteCode** to indicate the anatomical site or system that is the focus of the procedure, if the site is not inherent in **[Observation | Procedure] / code** or if there is a need to further specialize the site in **[Observation | Procedure] / code**. **[Observation | Procedure] / targetSiteCode SHALL NOT** conflict with the site inherent in **[Observation | Procedure] / code**.

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CCD-CONF-437: A procedure activity **MAY** contain one or more location participations (templateId 2.16.840.1.113883.10.20.1.45) (see section *3.15.2.2 Encounter location* within CCD for more on referencing within CCD) to represent where the procedure was performed.

CCD-CONF-438: A procedure activity **MAY** contain one or more **[Act | Observation | Procedure] / performer** to represent those practitioners who performed the procedure.

CCD-CONF-439: A procedure activity **MAY** contain one or more **entryRelationship / @typeCode="RSON**", the target of which represents the indication or reason for the procedure.

CCD-CONF-440: **[Act | Observation | Procedure] / entryRelationship / @typeCode="RSON"** in a procedure activity **SHALL** have a target of problem act (templateId 2.16.840.1.113883.10.20.1.27), problem observation (templateId 2.16.840.1.113883.10.20.1.28), or some other clinical statement.

CCD-CONF-441: A procedure activity **MAY** contain one or more patient instructions (templateId 2.16.840.1.113883.10.20.1.49) (see section *3.9.2.2.2 Patient instructions* within CCD), to represent any additional information provided to a patient related to the procedure.

CCD-CONF-442: A procedure activity **MAY** have one or more associated consents, represented in the CCD Header as **ClinicalDocument / authorization / consent**.

CCD-CONF-443: A Procedure in a procedure activity **MAY** have one or more **Procedure / specimen**, reflecting specimens that were obtained as part of the procedure.

CCD-CONF-444: **Procedure / specimen / specimenRole / id SHOULD** be set to equal an **Organizer / specimen / specimenRole / id** (see section *3.14 Results*) to indicate that the Procedure and the Results are referring to the same specimen.

CCD-CONF-445: The value for "**[Act | Observation | Procedure] / entryRelationship / @typeCode**" in a procedure activity **MAY** be "SUBJ" "Subject" 2.16.840.1.113883.5.1002 ActRelationshipType STATIC to reference an age observation (templateId 2.16.840.1.113883.10.20.1.38).[3]

CCD-CONF-446: A procedure activity **MAY** have one or more **[Act | Observation | Procedure] / entryRelationship [@typeCode="COMP"]**, the target of which is a medication activity (templateId 2.16.840.1.113883.10.20.1.24) (see section *3.9.2.1.1 Medication activity* within CCD), to describe substances administered during the procedure.

CCD-CONF-447: A procedure activity **SHALL** contain one or more sources of information, as defined in section *5.2 Source* within CCD.

CCD-CONF-448: A procedure activity **MAY** have one or more **[Act | Observation | Procedure] / participant [@typeCode="DEV"]**, the target of which is a product instance template.

CCD-CONF-449: A product instance (templateId 2.16.840.1.113883.10.20.1.52) **SHALL** be represented with the **ParticipantRole** class.

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[3] Note that entryRelationship / inversionInd can be used to distinguish relationship source vs. target.

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CCD-CONF-450: The value for "**participantRole / @classCode**" in a product instance **SHALL** be "MANU" "Manufactured product" 2.16.840.1.113883.5.110 RoleClass **STATIC**.

CCD-CONF-451: If participantRole in a product instance contains participantRole / id, then participantRole **SHOULD** also contain participantRole / scopingEntity.

CCD-CONF-452: **[Act | Observation | Procedure] / participant / participantRole / id SHOULD** be set to equal a **Supply / participant / participantRole / id** (see section *3.9.2.4 Representation of a product* within CCD) to indicate that the Procedure and the Supply are referring to the same product instance.

Results (Template ID: 2.16.840.1.113883.10.20.1.14)

CCD-CONF-388: CCD **SHOULD** contain exactly one and **SHALL NOT** contain more than one Results section (templateId 2.16.840.1.113883.10.20.1.14). The Results section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more result organizers (templateId 2.16.840.1.113883.10.20.1.32), each of which **SHALL** contain one or more result observations (templateId 2.16.840.1.113883.10.20.1.31).

CCD-CONF-389: The Results section **SHALL** contain **Section** / **code**.

CCD-CONF-390: The value for "**Section** / **code**" **SHALL** be "30954-2" "Relevant diagnostic tests and / or laboratory data" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-391: The Results section **SHALL** contain **Section** / **title**.

CCD-CONF-392: **Section** / **title SHOULD** be valued with a case-insensitive language-insensitive text string containing "results."

CCD-CONF-393: A result organizer (templateId 2.16.840.1.113883.10.20.1.32) **SHALL** be represented with **Organizer**.

CCD-CONF-394: The value for "**Organizer** / **@moodCode**" in a result organizer **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-395: A result organizer **SHALL** contain at least one **Organizer** / **id**.

CCD-CONF-396: A result organizer **SHALL** contain exactly one **Organizer** / **statusCode**.

CCD-CONF-397: A result organizer **SHALL** contain exactly one **Organizer** / **code**.

CCD-CONF-398: The value for "**Organizer** / **code**" in a result organizer **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12) or ValueSet 2.16.840.1.113883.1.11.20.16 ResultTypeCode **STATIC**.

CCD-CONF-399: A result organizer **SHOULD** include one or more **Organizer** / **specimen** if the specimen is not inherent in **Organizer** / **code**.

CCD-CONF-400: **Organizer** / **specimen SHALL NOT** conflict with the specimen inherent in **Organizer** / **code**.

CCD-CONF-402: **Organizer** / **specimen** / **specimenRole** / **id SHOULD** be set to equal a **Procedure** / **specimen** / **specimenRole** / **id** (see section ***3.15 Procedures***) to indicate that the Results and the Procedure are referring to the same specimen.

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CCD-CONF-402: A result organizer **SHALL** contain one or more **Organizer** / **component**.

CCD-CONF-403: The target of one or more result organizer **Organizer** / **component** relationships **MAY** be a procedure, to indicate the means or technique by which a result is obtained, particularly if the means or technique is not inherent in **Organizer** / **code** or if there is a need to further specialize the **Organizer** / **code** value.

CCD-CONF-404: A result organizer **Organizer** / **component** / **procedure MAY** be a reference to a procedure described in the Procedure section. (See Section 5.3 InternalCCRLink for more on referencing within CCD).

CCD-CONF-405: The target of one or more result organizer **Organizer** / **component** relationships **SHALL** be a result observation.

CCD-CONF-406: A result organizer **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

CCD-CONF-407: A result observation (templateId 2.16.840.1.113883.10.20.1.31) **SHALL** be represented with Observation.

CCD-CONF-408: The value for "**Observation** / **@moodCode**" in a result observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-409: A result observation **SHALL** contain at least one **Observation** / **id**.

CCD-CONF-410: A result observation **SHALL** contain exactly one **Observation** / **statusCode**.

CCD-CONF-411: A result observation **SHOULD** contain exactly one **Observation** / **effectiveTime**, which represents the biologically relevant time (e.g. time the specimen was obtained from the patient).

CCD-CONF-412: A result observation **SHALL** contain exactly one **Observation** / **code**.

CCD-CONF-413: The value for "**Observation** / **code**" in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12).

CCD-CONF-414: A result observation **MAY** contain exactly one **Observation** / **methodCode** if the method is not inherent in **Observation** / **code** or if there is a need to further specialize the method in **Observation** / **code**.

CCD-CONF-415: **Observation** / **methodCode SHALL NOT** conflict with the method inherent in **Observation** / **code**.

CCD-CONF-416: A result observation **SHALL** contain exactly one **Observation** / **value**.

CCD-CONF-417: Where **Observation** / **value** is a physical quantity, the unit of measure **SHALL** be expressed using a valid Unified Code for Units of Measure (UCUM) expression.

CCD-CONF-418: A result observation **SHOULD** contain exactly one **Observation** / **interpretationCode**, which can be used to provide a rough qualitative interpretation of the observation, such as "normal", "abnormal", resistant", "susceptible", etc. Interpretation is generally provided for numeric results where an interpretation range has been defined, or for antimicrobial susceptibility test interpretation.

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CCD-CONF-419: A result observation **SHOULD** contain one or more **Observation** / **referenceRange** to show the normal range of values for the observation result.

CCD-CONF-420: A result observation **SHALL NOT** contain **Observation** / **referenceRange** / **observationRange** / **code**, as this attribute is not used by the HL7 Clinical Statement or Lab Committee models.

CCD-CONF-421: A result observation **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

Social History (Template ID: 2.16.840.1.113883.10.20.1.15)

CCD-CONF-232: CCD **SHOULD** contain exactly one and **SHALL NOT** contain more than one Social History section (templateId 2.16.840.1.113883.10.20.1.15). The Social History section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Clinical statements **SHOULD** include one or more social history observations (templateId 2.16.840.1.113883.10.20.1.33).

CCD-CONF-233: The Social History section **SHALL** contain **Section** / **code**.

CCD-CONF-234: The value for "**Section** / **code**" **SHALL** be "29762-2" "Social history" 2.16.840.1.113883.6.1 LOINC **STATIC**.

CCD-CONF-235: The Social History section **SHALL** contain **Section** / **title**.

CCD-CONF-236: **Section** / **title** **SHOULD** be valued with a case-insensitive language-insensitive text string containing "social history."

CCD-CONF-237: A social history observation (templateId 2.16.840.1.113883.10.20.1.33) **SHALL** be represented with **Observation**.

CCD-CONF-237: The value for "**Observation** / **@classCode**" in a social history observation **SHALL** be "OBS" 2.16.840.1.113883.5.6 ActClass **STATIC**.

CCD-CONF-239: The value for "**Observation** / **@moodCode**" in a social history observation **SHALL** be "EVN" 2.16.840.1.113883.5.1001 ActMood **STATIC**.

CCD-CONF-240: A social history observation **SHALL** contain at least one **Observation** / **id**.

CCD-CONF-241: A social history observation **SHALL** include exactly one **Observation** / **statusCode**.

CCD-CONF-242: The value for "**Observation** / **statusCode**" in a social history observation **SHALL** be "completed" 2.16.840.1.113883.5.14 ActStatus **STATIC**.

CCD-CONF-243: The value for "**Observation** / **code**" in a social history observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96), or **MAY** be selected from ValueSet 2.16.840.1.113883.1.11.20.18 SocialHistoryTypeCode **STATIC** 20061017.

CCD-CONF-244: **Observation** / **value** can be any datatype. Where **Observation** / **value** is a physical quantity, the unit of measure **SHALL** be expressed using a valid Unified Code for Units of Measure (UCUM) expression.

CCD-CONF-245: A social history observation **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

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CCD-CONF-246: A social history observation **MAY** contain exactly one social history status observation.

CCD-CONF-247: A social history status observation (templateId 2.16.840.1.113883.10.20.1.56) **SHALL** be a conformant status observation (templateId 2.16.840.1.113883.10.20.1.57) (as defined in section *5.1 "Type" and "Status" values*).

CCD-CONF-248: The value for "**Observation** / **value**" in a social history status observation **SHALL** be selected from ValueSet 2.16.840.1.113883.1.11.20.17 SocialHistoryStatusCode **STATIC** 20061017.

CCD-CONF-249: A social history observation **MAY** contain exactly one episode observation (templateId 2.16.840.1.113883.10.20.1.41) (see section ***3.6.2.3 Episode observations***).

CCD-CONF-250: Marital status **SHOULD** be represented as **ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **maritalStatusCode**. Additional information **MAY** be represented as social history observations.

CCD-CONF-251: Religious affiliation **SHOULD** be represented as **ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **religiousAffiliationCode**. Additional information **MAY** be represented as social history observations.

CCD-CONF-252: A patient's race **SHOULD** be represented as **ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **raceCode**. Additional information **MAY** be represented as social history observations.

CCD-CONF-253: The value for "**ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **raceCode**" **MAY** be selected from codeSystem 2.16.840.1.113883.5.104 (Race).

CCD-CONF-254: A patient's ethnicity **SHOULD** be represented as **ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **ethnicGroupCode**. Additional information **MAY** be represented as social history observations.

CCD-CONF-255: The value for "**ClinicalDocument** / **recordTarget** / **patientRole** / **patient** / **ethnicGroupCode**" **MAY** be selected from codeSystem 2.16.840.1.113883.5.50 (Ethnicity).

Vital Signs Organizer (Template ID: 2.16.840.1.113883.10.20.1.35)

Vital signs are represented like other results (as defined in section ***3.13 Results***, with additional vocabulary constraints.

CCD-CONF-386: A vital signs organizer (templateId 2.16.840.1.113883.10.20.1.35) **SHALL** be a conformant results organizer (templateId 2.16.840.1.113883.10.20.1.32).

CCD-CONF-387: A vital signs organizer **SHALL** contain one or more sources of information, as defined in section ***5.2 Source***.

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Consultation Note Constraints

The following constraint is from the final publication of the Consultation Note dated July 16, 2008. Any discrepancy between this and the original is inadvertent and in all cases, the Consultation Note source takes precedence.

Review of Systems (Template ID: 2.16.840.1.113883.10.20.4.10)

CO-CONF-40: A Consultation Note **SHALL NOT** contain more than one Review of Systems section (templateId 2.16.840.1.113883.10.20.4.10).

CO-CONF-41: The LOINC® section code used for the section describing the Review of Systems **SHALL** be 10187-3 (REVIEW OF SYSTEMS).

History & Physical Constraints

The following constraints are from the final publication of the History and Physical (H&P) Note dated July 16, 2008. Any discrepancy between this and the original is inadvertent and in all cases, the H&P source takes precedence.

Past Medical History (Template ID: 2.16.840.1.113883.10.20.2.9)

H&P-CONF-77: A History and Physical **SHALL** contain exactly one and **SHALL NOT** contain more than one Past Medical History section (`templateId 2.16.840.1.113883.10.20.2.9`). The Past Medical History section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements.

H&P-CONF-78: The section code for the section describing Past Medical History **SHALL** be `11348-0 (HISTORY OF PAST ILLNESS)`.

Reason for Visit/Chief Complaint (Template ID: 2.16.840.1.113883.10.20.2.8)

H&P-CONF-74: When the Chief Complaint and the Reason for Visit are recorded separately there **SHALL** be a section whose value for "Section / code" **SHALL** be "10154-3" "Chief complaint" 2.16.840.1.113883.6.1 LOINC STATIC; **AND** there **SHALL** be a section whose value for "Section / code" **SHALL** be "29299-5" "Reason for visit" 2.16.840.1.113883.6.1 LOINC STATIC; **AND** there **SHALL NOT** be a section whose value for "Section / code" is "46239-0" "Reason for visit + Chief complaint."

H&P-CONF-75: When the Chief Complaint and Reason for Visit are recorded together, the value for "Section / code" **SHALL** be "46239-0" "Reason for visit + Chief complaint" 2.16.840.1.113883.6.1 LOINC STATIC; **AND** there **SHALL NOT** be a section whose value for "Section / code" is "10154-3" "Chief complaint"; **AND** there **SHALL NOT** be a section whose value for "Section / code" is "29299-5" "Reason for visit."

Vital Signs (Template ID: 2.16.840.1.113883.10.20.2.4)

H&P-CONF-86: A History and Physical **SHALL** contain exactly one Vital Signs section (templateId 2.16.840.1.113883.10.20.2.4). The Vital Signs section **MAY** be contained within a History and Physical Examination section or **MAY** stand alone in a first level section.

H&P-CONF-87: The section code for the section describing vital signs in a conforming History and Physical **SHALL** be 8716-3 (VITAL SIGNS). The Vital Signs section **SHALL** contain a narrative block, and **SHOULD** contain clinical statements. Level 3 clinical

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statements **SHOULD** include one or more CCD vital signs organizers (templateId 2.16.840.1.113883.10.20.1.35), each of which **SHALL** contain one or more CCD result observations (templateId 2.16.840.1.113883.10.20.1.31).

IHE Constraints

The following constraints are from the IHE Discharge Summary wiki dated August 5, 2009. Any discrepancy between this and the original is inadvertent and in all cases, the IHE source takes precedence.

Discharge Diet Section (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.33)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.33	
General Description	The discharge diet section shall contain a narrative description of the expectations for diet including proposals, goals, and order requests for monitoring, tracking, or improving the dietary control of the patient, specifically used in a discharge from a facility such as an emergency department, hospital, or nursing home.	
LOINC Code	**Opt**	**Description**
42344-2	R	DISCHARGE DIET

History of Present Illness Section (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.4)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.4	
General Description	The history of present illness section shall contain a narrative description of the sequence of events preceding the patient's current complaints.	
LOINC Code	**Opt**	**Description**
10164-2	R	HISTORY OF PRESENT ILLNESS

Hospital Course (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.5)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.5	
General Description	The hospital course section shall contain a narrative description of the sequence of events from admission to discharge in a hospital facility.	
LOINC Code	**Opt**	**Description**
8648-8	R	HOSPITAL COURSE

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Hospital Discharge Diagnosis (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.7)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.7	
General Description	The discharge diagnosis section shall contain a narrative description of the conditions that need to be monitored after discharge from the hospital and those that were resolved during the hospital course. It shall include entries for patient conditions as described in the Entry Content Module.	
LOINC Code	**Opt**	**Description**
11535-2	R	HOSPITAL DISCHARGE DX
Entries	**Opt**	**Description**
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	R	Problem Concern Entry

Hospital Discharge Medications Section (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.22)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.22	
General Description	The hospital discharge medications section shall contain a narrative description of the medications requested (ordered) to be administered to the patient after discharge from the hospital. It shall include entries for medication requests as described in the Entry Content Module.	
LOINC Code	**Opt**	**Description**
10183-2	R	HOSPITAL DISCHARGE MEDICATIONS
Entries	**Opt**	**Description**
1.3.6.1.4.1.19376.1.5.3.1.4.7	R	Medications

Hospital Discharge Physical Exam Section (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.26)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.26	
General Description	The hospital discharge physical exam section shall contain a narrative description of the patient's physical findings at discharge from a hospital facility.	
LOINC Code	**Opt**	**Description**
10184-0	R	HOSPITAL DISCHARGE PHYSICAL

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Review of Systems (Template ID: 1.3.6.1.4.1.19376.1.5.3.1.3.18)

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.18	
General Description	The review of systems section shall contain a narrative description of the responses the patient gave to a set of routine questions on the functions of each anatomic body system.	
LOINC Code	**Opt**	**Description**
10187-3	R	REVIEW OF SYSTEMS

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APPENDIX F — HITSP C48 CONFORMANCE

This appendix lists requirements for conformance to HITSP C48, release v2.5, that are over and above those defined in the body of this guide.

Additional Header Requirements

A Discharge Summary header conforming to C48 must include the requirements in this guide and in addition the following header templates.

Table 7: Header Templates Required for HITSP C48 Conformance

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.48.2	HITSP Discharge Summary	HITSP C48 20090708 V2.5
1.3.6.1.4.1.19376.1.5.3.1.1.2	IHE Medical Summary Specification	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.1.4	IHE Discharge Summary Specification	PCC Technical Framework V5.0

Additional Required Sections

A Discharge Summary body conforming to HITSP C48 must include the requirements in this guide. HITSP C48 requires three additional body sections and modules not required by this guide. This section lists those sections and their content requirements.

Active Problems

HITSP C48 conformance requires inclusion of the HITSP Problem List section and Condition module, and the IHE Active Problems section and Problem Concern entry.

Table 8: HITSP C48 Conformance – Active Problems Section

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.103	HITSP Problem List Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.7	HITSP Condition Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.6	IHE Active Problems Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	IHE Problem Concern Entry	PCC Technical Framework V5.0

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Hospital Admission Diagnosis

HITSP C48 conformance requires the HITSP Hospital Admission Diagnosis section and Condition module, and the IHE Hospital Admission Diagnosis section and Problem Concern entry.

Table 9: HITSP C48 Conformance – Hospital Admission Diagnosis Section

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.110	HITSP Hospital Admission Diagnosis Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.7	HITSP Condition Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.3	IHE Hospital Admission Diagnosis Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	IHE Problem Concern Entry	PCC Technical Framework V5.0

Resolved Problems

HITSP C48 conformance requires the HITSP History of Past Illness section template and Condition module, the IHE History of Past Illness section template and Problem Concern entry, and the HL7 History and Physical Past Medical History section.

Table 10: HITSP C48 Conformance – Resolved Problems Section

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.104	HITSP History of Past Ilness Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.7	HITSP Condition Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.8	IHE History of Past Ilness Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	IHE Problem Concern Entry	PCC Technical Framework V5.0
2.16.840.1.113883.10.20.2.9	HL7 History and Physical (H&P) Past Medical History Section	HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes Release 1

Additional Content Requirements for Sections Defined in This Guide

A Discharge Summary body conforming to C48 must include the requirements in this guide. In addition, C48 has requirements for some of the sections defined in this guide that go beyond the requirements for conformance to this guide. This section lists those sections and their C48-required content requirements.

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Allergies/Other Sensitivities

HITSP C48 conformance requires the HITSP Allergy/Drug Sensitivity section and Allergy and Drug Sensitivity module, and the IHE Allergies section template and Intolerance Concern entry.

Table 11: HITSP C48 Conformance – Allergies

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.102	HITSP Allergies and Other Adverse Reactions Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.6	HITSP Allergy and Drug Sensitivity Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.13	IHE Allergies and Other Adverse Reactions Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.5.3	IHE Allergy and Intolerance Concern Entry	PCC Technical Framework V5.0

Discharge Diagnosis

HITSP C48 conformance requires the HITSP Discharge Diagnosis section and Condition module, and IHE Discharge Diagnosis section and Problem Concern entry.

Table 12: HITSP C48 Conformance – Discharge Diagnosis

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.111	HITSP Discharge Diagnosis Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.7	HITSP Condition Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.7	IHE Discharge Diagnosis Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	IHE Problem Concern Entry	PCC Technical Framework V5.0

Discharge Medications

HITSP C48 conformance requires the HITSP Hospital Discharge Medications section and Medication module, and the IHE Medications Administered section and Medications entry.

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Table 13: HITSP C48 Conformance – Discharge Medications

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.114	HITSP Hospital Discharge Medications Section	HITSP C83 20090708 V1.1
2.16.840.1.113883.3.88.11.83.8	HITSP Medication Module	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.21	IHE Hospital Discharge Medications Section	PCC Technical Framework V5.0
1.3.6.1.4.1.19376.1.5.3.1.4.7	IHE Medications Entry	PCC Technical Framework V5.0

Hospital Course

HITSP C48 conformance requires the HITSP Hospital Course section and the IHE Hospital Course section.

Table 14: HITSP C48 Conformance – Hospital Course

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.121	HITSP Hospital Course Section	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.5	IHE Hospital Course Section	PCC Technical Framework V5.0

Plan of Care

HITSP C48 conformance requires the HITSP Plan of Care section, IHE Care Plan section, and the HL7 History and Physical (H&P) Assessment and Plan section.

Table 15: HITSP C48 Conformance – Plan of Care

TemplateId	Description	Specification Reference
2.16.840.1.113883.3.88.11.83.124	HITSP Plan of Care Section	HITSP C83 20090708 V1.1
1.3.6.1.4.1.19376.1.5.3.1.3.31	IHE Care Plan Section	PCC Technical Framework V5.0
2.16.840.1.113883.10.20.2.7	HL7 History and Physical (H&P) Assessment and Plan Section	HL7 Implementation Guide for CDA Release 2: History and Physical (H&P) Notes Release 1

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