Implementation Guide for CDA Release 2
Health Story - Progress Note
(U.S. Realm)

DRAFT: FOR DEVELOPMENT USE ONLY
Example produced from UML via MDHT tools
(Consolidated Developer Documentation)

Contents

Acknowledgments

This Draft Standard for Trial Use (DSTU) was produced and developed through the efforts of the Health Story Project. The project was initiated by the Association for Healthcare Documentation Integrity (AHDI), Medical Transcription Industry Association (MTIA), American Health Information Management Association (AHIMA), and M*Modal and is being managed by Alschuler Associates, LLC and Optimal Accords, LLC. Promoter members include A-Life Medical, Emdat, Fujitsu, GE Healthcare IT, InfraWare, MedQuist, Nuance, Osmosyz, Spheris, 3M, and Webmedx. Without their support and participation, this DSTU would not have been possible.

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Revision History

Rev	Date	By Whom	Changes	Notes
Ballot 1.0	13 August 2010	B. Marquard, S. Hardy	Initial ballot draft	

Chapter 1

INTRODUCTION

Topics:

Overview

This document describes constraints on the Clinical Document Architecture (CDA) header and body elements for a Progress Note.

A Progress Note documents a patient's clinical status during a hospitalization or outpatient visit.

Taber's [1] medical dictionary defines a Progress Note as "An ongoing record of a patient's illness and treatment. Physicians, nurses, consultants, and therapists record their notes concerning the progress or lack of progress made by the patient between the time of the previous note and the most recent note."

Mosby's [2] medical dictionary defines a Progress Note as "Notes made by a nurse, physician, social worker, physical therapist, and other health care professionals that describe the patient's condition and the treatment given or planned."

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.

Approach

In the development of this specification, we reviewed existing draft and final specifications or implementation guides for similar artifacts in the U.S.:

- Clinical LOINC® document and section codes
- HL7 Clinical Document Architecture, Release 2 Normative Web Edition, 2005
- CDA Release 2 – CCD: Continuity of Care Document (CCD)
- 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: Procedure Note
- Non-CDA sample documents supplied by participating providers and vendors

In addition, M*Modal provided statistical analysis of approximately 25,000 sample Progress Notes. The HL7 Structured Documents Work Group reviewed the design. While current divergent industry practices cannot be perfectly reflected in any consensus model, we designed this specification to increase consistency with minimal disruption to current practice and workflow.

Organization of This Guide

The requirements as laid out in the body of this document are subject to change per the policy on implementation guides (see section 13.02" Draft Standard for Trial Use Documents" within the HL7 Governance and Operations Manual, *http://www.hl7.org/documentcenter/public/membership/HL7_Governance_and_Operations_Manual.pdf*).

Templates

Templates are organized by document (see Document Templates), by section (see Section Templates), and by clinical statements (see Clinical Statement Templates). Within a section, templates are arranged hierarchically, where a more specific template is nested under the more generic template that it conforms to. See Templates by Containment for a

[1] Taber's Cyclopedic Medical Dictionary, 21st Edition, F.A. Davis Company. http://www.tabers.com
[2] Mosby's Medical Dictionary, 8th edition. © 2009, Elsevier.

listing of the higher level templates by containment; the appendix Templates Used in This Guide includes a table of all of the templates Organized Hierarchically.

Vocabulary and Value Sets

Vocabularies recommended in this guide are from standard vocabularies. When SNOMED codes are used, rules defined in Using SNOMED CT in HL7 Version 3 are adhered to. In many cases, these vocabularies are further constrained into value sets for use within this guide. Value set names and OIDs are summarized in the table Summary of Value Sets. Each named value set in this summary table is stored in a template database that will be maintained by CHCA.

Use of Templates

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

Originator Responsibilities

An originator can apply a `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 `templateId`s are required for conformance.

Recipient Responsibilities

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 `templateId`s).

Conventions Used in This Guide

Conformance Requirements

Conformance statements are grouped and identified by the name of the template, along with the templateId and the context of the template (e.g., ClinicalDocument, section, observation), which specifies the element under constraint. If a template is a specialization of another template, its first constraint indicates the more general template. In all cases where a more specific template conforms to a more general template, asserting the more specific template also implies conformance to the more general template. An example is shown below.

Template name

`[<type of template>: templateId <XXXX.XX.XXX.XXX>]`

Description of the template will be here .....

1. Conforms to <The template name> Template (templateId: XXXX<XX>XXX>YYY).
2. **SHALL** contain [1..1] @classCode = <AAA> <code display name> (CodeSystem: 123.456.789 <XXX> Class) **STATIC** (CONF:<number>).
3. .....

Figure 1: Template name and "conforms to" appearance

The conformance verb keyword at the start of a constraint (**SHALL** , **SHOULD** , **MAY**, etc.) indicates business conformance, whereas the cardinality indicator (0..1, 1..1, 1..*, etc.) specifies the allowable occurrences within an

instance. Thus, " **MAY** contain 0..1" and " **SHOULD** contain 0..1" both allow for a document to omit the particular component, but the latter is a stronger recommendation that the component be included if it is known.

The following cardinality indicators may be interpreted as follows:

0..1 as zero to one present
1..1 as one and only one present
2..2 as two must be present
1..* as one or more present
0..* as zero to many present

Value set bindings adhere to HL7 Vocabulary Working Group best practices, and include both a conformance verb (**SHALL** , **SHOULD** , **MAY,** etc.) and an indication of **DYNAMIC** vs. **STATIC** binding. The use of **SHALL** requires that the component be valued with a member from the cited value set; however, in every case any HL7 "null" value such as other (OTH) or unknown (UNK) may be used.

Each constraint is uniquely identified (e.g., "CONF:605") by an identifier placed at or near the end of the constraint. These identifiers are not sequential as they are based on the order of creation of the constraint.

1. **SHALL** contain [1..1] component/structuredBody (CONF:4082).
    a. This component/structuredBody **SHOULD** contain [0..1] component (CONF:4130) such that it
        a. **SHALL** contain [1..1] Reporting Parameters section (templateId:2.16.840.1.113883.10.20.17.2.1) (CONF:4131).
    b. This component/structuredBody **SHALL** contain [1..1] component (CONF:4132) such that it
        a. **SHALL** contain [1..1] Patient data section - NCR (templateId:2.16.840.1.113883.10.20.17.2.5) (CONF:4133).

Figure 2: Template-based conformance statements example

CCD templates are included within this implementation guide for ease of reference. CCD templates contained within this implementation guide are formatted WITHOUT typical **KEYWORD** and **XML** element styles. A WIKI site is available if you would like to make a comment to be considered for the next release of CCD: *http://wiki.hl7.org/index.php?title=CCD_Suggested_Enhancements* The user name and password are: wiki/wikiwiki. You will need to create an account to edit the page and add your suggestion.

1. The value for "Observation / @moodCode" in a problem observation SHALL be "EVN" 2.16.840.1.113883.5.1001 ActMood STATIC. (CONF: 814).
2. A problem observation SHALL include exactly one Observation / statusCode. (CONF: 815).
3. The value for "Observation / statusCode" in a problem observation SHALL be "completed" 2.16.840.1.113883.5.14 ActStatus STATIC. (CONF: 816).
4. 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). (CONF: 817).

Figure 3: CCD conformance statements example

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

XML Examples

XML samples appear in various figures in this document in a fixed-width font. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (…) as shown in the example below.

```
<ClinicalDocument xmlns='urn:h17-org:v3'>
```

```
  ...
</ClinicalDocument>
```

Figure 4: ClinicalDocument example

XPath expressions are used in the narrative and conformance requirements to identify elements because they are familiar to many XML implementers.

Scope

TODO: scope of this implementation guide.

Chapter 2

DOCUMENT TEMPLATES

Topics:

This section contains the document level constraints for CDA documents that are compliant with this implementation guide.

General Header Constraints

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.3`]

This section describes constraints that apply to the H and P Note and to other types of CDA documents defined for general exchange. The template defined here should be reused wherever these general header constraints are applied.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Clinical Document*
4. [CDT] **CONF-HP-21: SHALL** contain [1..1] `code`
5. [CDT] **SHALL** contain [1..1] `confidentialityCode`
6. [CDT] **CONF-HP-23: SHALL** contain [1..1] `effectiveTime`
7. [CDT] **SHALL** contain [1..1] `id`
8. [CDT] **CONF-HP-24: SHALL** contain [1..1] `languageCode`
9. [CDT] **SHALL** contain [1..1] `realmCode/@code` = "US"
10. [CDT] **CONF-HP-22: SHALL** contain [1..1] `title`
11. [CDT] **SHALL** contain [1..1] `typeId`
12. [CDT] **CONF-HP-16: SHALL** satisfy: The extension attribute of the typeId element SHALL be POCD_HD000040.
13. [CDT] **CONF-HP-17: SHALL** satisfy: The ClinicalDocument/id element SHALL be present. The ClinicalDocument/id/@root attribute SHALL be a syntactically correct UUID or OID.
14. [CDT] **CONF-HP-18: SHALL** satisfy: UUIDs SHALL be represented in the form XXXXXXXX-XXXX-XXXX-XXXXXXXXXXXXXXXX, where each X is a character from the set [A-Fa-f0-9].
15. [CDT] **CONF-HP-19: SHALL** satisfy: OIDs SHALL be represented in dotted decimal notation, where each decimal number is either 0, or starts with a nonzero digit. More formally, an OID SHALL be in the form ([0-2])(.([1-9][0-9]*|0))+.
16. [CDT] **CONF-HP-20: SHALL** satisfy: OIDs SHALL be no more than 64 characters in length.
17. [CDT] **CONF-HP-25: SHALL** satisfy: languageCode SHALL be in the form nn, or nn-CC.
18. [CDT] **CONF-HP-26: SHALL** satisfy: The nn portion of languageCode SHALL be a legal ISO-639-1 language code in lowercase.
19. [CDT] **CONF-HP-27: SHALL** satisfy: The CC portion languageCode, if present, SHALL be an ISO-3166 country code in uppercase.
20. [CDT] **CONF-HP-28: SHALL** satisfy: Both setId and versionNumber SHALL be present or both SHALL be absent.
21. [CDT] **CONF-HP-29: SHALL** satisfy: The @extension and/or @root of setId and id SHALL be different when both are present.
22. [CDT] **CONF-HP-30: SHALL** satisfy: A copyTime element SHALL NOT be present.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <realmCode code="US"/>
  <templateId root="2.16.840.1.113883.10.20.3" assigningAuthorityName="CDT
 General Header Constraints"/>
  <id root="79c88e0f-ae5b-4b6e-9a91-68368b94627d"/>
  <code/>
  <title/>
  <effectiveTime/>
  <confidentialityCode/>
  <languageCode/>
</ClinicalDocument>
```

Figure 5: General Header Constraints example

Progress Note

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.21.1`]

A Progress Note documents a patient's clinical status during a hospitalization or outpatient visit.

Taber's medical dictionary defines a Progress Note as "An ongoing record of a patient's illness and treatment. Physicians, nurses, consultants, and therapists record their notes concerning the progress or lack of progress made by the patient between the time of the previous note and the most recent note."

Mosby's medical dictionary defines a Progress Note as "Notes made by a nurse, physician, social worker, physical therapist, and other health care professionals that describe the patient's condition and the treatment given or planned."

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Clinical Document*
4. Conforms to *General Header Constraints* template (templateId: `2.16.840.1.113883.10.20.3`)
5. [CDT] **CONF-PRGN-3: SHALL** contain [1..1] `code`, which **SHALL** be selected from ValueSet 2.16.840.1.113883.11.20.8.1 *ProgressNoteDocumentTypeCode* DYNAMIC
6. [CDT] **SHALL** contain [1..1] `confidentialityCode`
7. [CDT] **CONF-HP-23: SHALL** contain [1..1] `effectiveTime`
8. [CDT] **SHALL** contain [1..1] `id`
9. [CDT] **CONF-HP-24: SHALL** contain [1..1] `languageCode`
10. [CDT] **SHALL** contain [1..1] `realmCode/@code` = "US"
11. [CDT] **CONF-HP-22: SHALL** contain [1..1] `title`
12. [CDT] **SHALL** contain [1..1] `typeId`
13. [CDT] Contains [0..1] `component`, such that it
    a. contains *Assessment And Plan Section Proc Note* (templateId: `2.16.840.1.113883.10.20.18.2.14`)
14. [CDT] Contains [0..1] `component`, such that it
    a. contains *Assessment Section Proc Note* (templateId: `2.16.840.1.113883.10.20.18.2.13`)
15. [CDT] Contains [0..1] `component`, such that it
    a. contains *CCD Plan Of Care Section* (templateId: `2.16.840.1.113883.10.20.1.10`)
16. [CDT] **CONF-PRGN-21: MAY** contain [0..1] `component`, such that it
    a. contains *CCD Alerts Section* (templateId: `2.16.840.1.113883.10.20.1.2`)
17. [CDT] **CONF-PRGN-22: MAY** contain [0..1] `component`, such that it
    a. contains *Chief Complaint Section Proc Note* (templateId: `2.16.840.1.113883.10.20.18.2.16`)
18. [CDT] **CONF-PRGN-23: MAY** contain [0..1] `component`, such that it
    a. contains *CCD Medications Section* (templateId: `2.16.840.1.113883.10.20.1.8`)
19. [CDT] **CONF-PRGN-24: MAY** contain [0..1] `component`, such that it
    a. contains *Objective Section* (templateId: `2.16.840.1.113883.10.20.21.2.1`)
20. [CDT] **CONF-PRGN-26: MAY** contain [0..1] `component`, such that it
    a. contains *Physical Examination Section* (templateId: `2.16.840.1.113883.10.20.2.10`)
21. [CDT] **CONF-PRGN-27: MAY** contain [0..1] `component`, such that it
    a. contains *CCD Problem Section* (templateId: `2.16.840.1.113883.10.20.1.11`)
22. [CDT] **CONF-PRGN-28: MAY** contain [0..1] `component`, such that it
    a. contains *CCD Results Section* (templateId: `2.16.840.1.113883.10.20.1.14`)
23. [CDT] **CONF-PRGN-29: MAY** contain [0..1] `component`, such that it
    a. contains *Vital Signs Section* (templateId: `2.16.840.1.113883.10.20.2.4`)
24. [CDT] **CONF-PRGN-30: MAY** contain [0..1] `component`, such that it
    a. contains *Review Of Systems Section IHE* (templateId: `1.3.6.1.4.1.19376.1.5.3.1.3.18`)
25. [CDT] **CONF-PRGN-31: MAY** contain [0..1] `component`, such that it
    a. contains *Subjective Section* (templateId: `2.16.840.1.113883.10.20.21.2.2`)

26. [CDT] **CONF-HP-16: SHALL** satisfy: The extension attribute of the typeId element SHALL be POCD_HD000040.
27. [CDT] **CONF-HP-17: SHALL** satisfy: The ClinicalDocument/id element SHALL be present. The ClinicalDocument/id/@root attribute SHALL be a syntactically correct UUID or OID.
28. [CDT] **CONF-HP-18: SHALL** satisfy: UUIDs SHALL be represented in the form XXXXXXXX-XXXX-XXXX-XXXXXXXXXXXXXXXX, where each X is a character from the set [A-Fa-f0-9].
29. [CDT] **CONF-HP-19: SHALL** satisfy: OIDs SHALL be represented in dotted decimal notation, where each decimal number is either 0, or starts with a nonzero digit. More formally, an OID SHALL be in the form ([0-2])(.([1-9][0-9]*|0))+.
30. [CDT] **CONF-HP-20: SHALL** satisfy: OIDs SHALL be no more than 64 characters in length.
31. [CDT] **CONF-HP-25: SHALL** satisfy: languageCode SHALL be in the form nn, or nn-CC.
32. [CDT] **CONF-HP-26: SHALL** satisfy: The nn portion of languageCode SHALL be a legal ISO-639-1 language code in lowercase.
33. [CDT] **CONF-HP-27: SHALL** satisfy: The CC portion languageCode, if present, SHALL be an ISO-3166 country code in uppercase.
34. [CDT] **CONF-HP-28: SHALL** satisfy: Both setId and versionNumber SHALL be present or both SHALL be absent.
35. [CDT] **CONF-HP-29: SHALL** satisfy: The @extension and/or @root of setId and id SHALL be different when both are present.
36. [CDT] **CONF-HP-30: SHALL** satisfy: A copyTime element SHALL NOT be present.
37. [CDT] **CONF-PN-45: SHALL** satisfy: Either combined Assessment + Plan section is included, or separate Assessment section and Plan section included, but not both combined and separate sections.
38. [CDT] **CONF-PN-44: SHALL** satisfy: When Assessment section or Plan section is included, then both sections SHALL be included.
39. [CDT] **CONF-PRGN-4: SHOULD** satisfy: Contains a serviceEvent element.
40. [CDT] **CONF-PRGN-5: SHALL** satisfy: The documentationOf/serviceEvent/code SHALL be 371532007 Progress Report 2.16.840.1.113883.6.96 SNOMED CT STATIC.
41. [CDT] **CONF-PRGN-6: SHOULD** satisfy: The serviceEvent/effectiveTime element SHOULD be present with effectiveTime/low element and SHALL include effectiveTime/high element if a width element is not present. The serviceEvent/effectiveTime element SHALLL be accurate to the day, and MAY be accurate to the second.
42. [CDT] **CONF-PRGN-7: SHALL** satisfy: Contains componentOf element.
43. [CDT] **CONF-PRGN-8: SHALL** satisfy: The encompassingEncounter has an 'id' element.
44. [CDT] **CONF-PRGN-9: SHALL** satisfy: The encompassingEncounter has an effectiveTime element.
45. [CDT] **CONF-PRGN-10: SHALL** satisfy: The encompassingEncounter has an effectiveTime/low element.
46. [CDT] **CONF-PRGN-11: SHOULD** satisfy: The encompassingEncounter element has an encompassingEncounter/location/healthCareFacility/id element.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <realmCode code="US"/>
  <templateId root="2.16.840.1.113883.10.20.3" assigningAuthorityName="CDT
 General Header Constraints"/>
  <templateId root="2.16.840.1.113883.10.20.21.1" assigningAuthorityName="CDT
 Progress Note"/>
  <id root="563317d3-8acc-446d-8f0a-fc86c617441a"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <title/>
  <effectiveTime/>
  <confidentialityCode/>
  <languageCode/>
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.18.2.14"
 assigningAuthorityName="CDT Assessment And Plan Section Proc Note"/>
          <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
          <title>ASSESSMENT AND PLAN</title>
```

```
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.18.2.13"
assigningAuthorityName="CDT Assessment Section Proc Note"/>
        <code code="51848-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="ASSESSMENT"/>
        <title>ASSESSMENT</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.1.10"
assigningAuthorityName="CCD Plan Of Care Section"/>
        <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Treatment plan"/>
        <title>Treatment plan</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.1.2"
assigningAuthorityName="CCD Alerts Section"/>
        <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Allergies, adverse reactions, alerts"/>
        <title>Allergies, adverse reactions, alerts</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.18.2.16"
assigningAuthorityName="CDT Chief Complaint Section Proc Note"/>
        <code code="10154-3" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="CHIEF COMPLAINT"/>
        <title>CHIEF COMPLAINT</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.1.8"
assigningAuthorityName="CCD Medications Section"/>
        <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of medication use"/>
        <title>History of medication use</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.21.2.1"
assigningAuthorityName="CDT Objective Section"/>
        <code code="OBJEC-X" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="OBJECTIVE DATA"/>
        <title>OBJECTIVE DATA</title>
      </section>
    </component>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.10.20.2.10"
assigningAuthorityName="CDT Physical Examination Section"/>
        <code code="29545-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="PHYSICAL FINDINGS"/>
        <title>PHYSICAL FINDINGS</title>
      </section>
```

```
      </component>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.11"
 assigningAuthorityName="CCD Problem Section"/>
          <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Problem list"/>
          <title>Problem list</title>
        </section>
      </component>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.14"
 assigningAuthorityName="CCD Results Section"/>
          <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
 laboratory data"/>
          <title>Relevant diagnostic tests and/or laboratory data</title>
        </section>
      </component>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.2.4"
 assigningAuthorityName="CDT Vital Signs Section"/>
          <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="VITAL SIGNS"/>
          <title>VITAL SIGNS</title>
        </section>
      </component>
      <component>
        <section>
          <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"
 assigningAuthorityName="IHE Review Of Systems Section"/>
          <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
          <title>REVIEW OF SYSTEMS</title>
        </section>
      </component>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.21.2.2"
 assigningAuthorityName="CDT Subjective Section"/>
          <code code="SUBJ-X" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="SUBJECTIVE DATA"/>
          <title>SUBJECTIVE DATA</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 6: Progress Note example

Chapter 3

SECTION TEMPLATES

Topics:

Alerts Section

[Section: templateId `2.16.840.1.113883.10.20.1.2`]

This section is used to list and describe any allergies, adverse reactions, and alerts that are pertinent to the patient's current or past medical history. At a minimum, currently active and any relevant historical allergies and adverse reactions should be listed.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CCD] **SHALL** contain [1..1] `code/@code` = "48765-2" *Allergies, adverse reactions, alerts* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CCD] **SHALL** contain [1..1] `title`
6. [CCD] **SHALL** contain [1..1] `text`
7. [CCD] **SHOULD** contain [1..*] `entry`, such that it
   a. contains *Problem Act* (templateId: `2.16.840.1.113883.10.20.1.27`)
8. [CCD] **SHOULD** satisfy: Contains a case-insensitive language-insensitive string containing "alert" and/or "allergies and adverse reactions".
9. [CCD] **SHALL** satisfy: The absence of known allergies, adverse reactions or alerts SHALL be explicitly asserted.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.2"
 assigningAuthorityName="CCD Alerts Section"/>
          <code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Allergies, adverse reactions, alerts"/>
          <title>Allergies, adverse reactions, alerts</title>
          <entry>
            <act classCode="ACT" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.27"
 assigningAuthorityName="CCD Problem Act"/>
              <id root="9bca352f-d352-4bce-8388-0a2c5f009830"/>
              <code nullFlavor="NA"/>
              <effectiveTime>
                <low value="1972"/>
                <high value="2008"/>
              </effectiveTime>
            </act>
          </entry>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 7: Alerts Section example

Assessment And Plan Section Proc Note

[Section: templateId `2.16.840.1.113883.10.20.18.2.14`]

The Assessment section (also called impression or diagnoses) represents the clinician's conclusions and working assumptions that will guide treatment of the patient. The assessment formulates a specific plan or set of recommendations. The assessment may be a list of specific disease entities or a narrative block.

The Plan section contains data that defines 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 care of the patient should be listed unless constrained due to privacy issues. The plan may also contain information about ongoing care of the patient and information regarding goals and clinical reminders. Clinical reminders are placed here to provide prompts for disease prevention and management, patient safety, and health-care quality improvements, including widely accepted performance measures. The plan may also indicate that patient education was given or will be provided.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-PN-46: SHALL** contain [1..1] `code/@code` = "51847-2" *ASSESSMENT AND PLAN* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.18.2.14"
 assigningAuthorityName="CDT Assessment And Plan Section Proc Note"/>
          <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
          <title>ASSESSMENT AND PLAN</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 8: Assessment And Plan Section Proc Note example

Assessment Section Proc Note

[Section: templateId `2.16.840.1.113883.10.20.18.2.13`]

The Assessment section (also called impression or diagnoses) represents the clinician's conclusions and working assumptions that will guide treatment of the patient. The assessment formulates a specific plan or set of recommendations. The assessment may be a list of specific disease entities or a narrative block.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-PN-45: SHALL** contain [1..1] `code/@code` = "51848-0" *ASSESSMENT* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
```

```
          <templateId root="2.16.840.1.113883.10.20.18.2.13"
 assigningAuthorityName="CDT Assessment Section Proc Note"/>
          <code code="51848-0" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="ASSESSMENT"/>
          <title>ASSESSMENT</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 9: Assessment Section Proc Note example

Chief Complaint Section Proc Note

[Section: templateId `2.16.840.1.113883.10.20.18.2.16`]

The Chief Complaint section records the patient's chief complaint (the patient's own description). The Chief Complaint section may be a subsection of the Medical History section.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-PN-108: SHALL** contain [1..1] `code/@code` = "10154-3" *CHIEF COMPLAINT* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CDT] **CONF-PN-109: MAY** satisfy: If the Chief Complaint section is NOT present, there MAY be a statement in the Medical History section providing the patient's chief compliant.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.18.2.16"
 assigningAuthorityName="CDT Chief Complaint Section Proc Note"/>
          <code code="10154-3" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="CHIEF COMPLAINT"/>
          <title>CHIEF COMPLAINT</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 10: Chief Complaint Section Proc Note example

Medications Section

[Section: templateId `2.16.840.1.113883.10.20.1.8`]

The Medications section defines a patient's current medications and pertinent medication history. At a minimum, the currently active medications should be listed, with an entire medication history as an option, particularly when the summary document is used for comprehensive data export. The section may also include a patient's prescription history, and enables the determination of the source of a medication list (e.g. from a pharmacy system vs. from the patient).

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*

4. [CCD] **SHALL** contain [1..1] `code/@code` = "10160-0" *History of medication use* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CCD] **SHALL** contain [1..1] `title`

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.8"
 assigningAuthorityName="CCD Medications Section"/>
          <code code="10160-0" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="History of medication use"/>
          <title>History of medication use</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 11: Medications Section example

Objective Section

[Section: templateId `2.16.840.1.113883.10.20.21.2.1`]

The Objective section contains directly observed and/or quantifiable data about the patient. It includes important and relevant positive and negative test results, and physical findings.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-PRGN-25: SHALL** contain [1..1] `code/@code` = "OBJEC-X" *OBJECTIVE DATA* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CDT] **CONF-PRGN-15: SHALL** contain [1..1] `text`
6. [CDT] **CONF-PRGN-14: SHALL** contain [1..1] `title`
7. [CDT] **CONF-PRGN-15: SHOULD** satisfy: Contains clinical statements.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.21.2.1"
 assigningAuthorityName="CDT Objective Section"/>
          <code code="OBJEC-X" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="OBJECTIVE DATA"/>
          <title>OBJECTIVE DATA</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 12: Objective Section example

Physical Examination Section

[Section: templateId `2.16.840.1.113883.10.20.2.10`]

The Physical Examination section includes direct observations made by the clinician. The examination may include the use of simple instruments and may also describe simple maneuvers performed directly on the patient's body. This section only includes observations made by the examining clinician using inspection, palpation, auscultation, and percussion; it does not include laboratory or imaging findings. The exam may be limited to pertinent body systems based on the patient's chief complaint or it may include a comprehensive examination. The examination may be reported as a collection of random clinical statements or it may be reported categorically. Categorical report formats may be divided into multiple subsections, including Vital Signs, General Status, and any of the subsections listed in Appendix D: List of Additional Physical Examination Subsections. Note that Vital Signs can be a top-level section or subsection of Physical Exam.

The physical findings included in this section describe direct observations made by the clinician divided by organ or body system and may be included under appropriate subsections to Physical Exam. Systems are typically listed cephalic to caudal (i.e., starting with the head) and may include all body systems or only those pertinent to the chief complaint. The head, eyes, ears, nose, throat, mouth, and teeth may be described separately or combined into a single subsection labeled "HEENT." Other subsections may include Skin, Neck, Lymph Nodes, Thorax (Chest) and Lungs, Cardiovascular, Breasts, Abdomen, Pelvic, Genitourinary, Musculoskeletal, Extremities including Peripheral Vascular, and Neurologic. A detailed Mental Status Examination may be included when pertinent.

The Physical Examination section may contain multiple nested subsections: Vital Signs, General Status, and those listed in Appendix D: List of Additional Physical Examination Subsections.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-HP-85: SHALL** contain [1..1] `code/@code` = "29545-1" *PHYSICAL FINDINGS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.2.10"
 assigningAuthorityName="CDT Physical Examination Section"/>
          <code code="29545-1" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="PHYSICAL FINDINGS"/>
          <title>PHYSICAL FINDINGS</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 13: Physical Examination Section example

Plan Of Care Section

[Section: templateId `2.16.840.1.113883.10.20.1.10`]

The plan of care section contains 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.

The plan of care section also contains information regarding goals and clinical reminders. Clinical reminders are placed here for purposes of providing prompts that may be used for disease prevention, disease management, patient safety, and healthcare quality improvements, including widely accepted performance measures.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CCD] **SHALL** contain [1..1] `code/@code` = "18776-5" *Treatment plan* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CCD] **SHALL** contain [1..1] `title`
6. [CCD] **SHALL** contain [1..1] `text`
7. [CCD] **MAY** contain [0..1] `entry`, such that it
   a. contains *Plan Of Care Activity Act* (templateId: `2.16.840.1.113883.10.20.1.25`)
8. [CCD] **MAY** contain [0..1] `entry`, such that it
   a. contains *Plan Of Care Activity Encounter* (templateId: `2.16.840.1.113883.10.20.1.25`)
9. [CCD] **MAY** contain [0..1] `entry`, such that it
   a. contains *Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.1.25`)
10. [CCD] **MAY** contain [0..1] `entry`, such that it
    a. contains *Plan Of Care Activity Procedure* (templateId: `2.16.840.1.113883.10.20.1.25`)
11. [CCD] **MAY** contain [0..1] `entry`, such that it
    a. contains *Plan Of Care Activity Substance Administration* (templateId: `2.16.840.1.113883.10.20.1.25`)
12. [CCD] **MAY** contain [0..1] `entry`, such that it
    a. contains *Plan Of Care Activity Supply* (templateId: `2.16.840.1.113883.10.20.1.25`)
13. [CCD] **SHALL** contain [1..1] `planOfCareActivity`, such that it
    a. contains *Plan Of Care Activity*

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.10"
 assigningAuthorityName="CCD Plan Of Care Section"/>
          <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Treatment plan"/>
          <title>Treatment plan</title>
          <entry>
            <act classCode="ACT" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.25"/>
              <id root="5bfad99d-13b3-4bbf-8b02-03115c412096"/>
            </act>
          </entry>
          <entry>
            <encounter>
              <templateId root="2.16.840.1.113883.10.20.1.25"/>
              <id root="11baada5-2f3e-4ae9-bead-f23e3cd26dcf"/>
            </encounter>
          </entry>
          <entry>
            <observation classCode="OBS" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.25"/>
              <id root="b00cdd4d-95b8-406e-8d45-57e065e6370a"/>
            </observation>
          </entry>
          <entry>
            <procedure>
              <templateId root="2.16.840.1.113883.10.20.1.25"/>
```

```
            <id root="8096f3ca-7657-4429-a8dc-44c74e194464"/>
          </procedure>
        </entry>
        <entry>
          <substanceAdministration classCode="SBADM">
            <templateId root="2.16.840.1.113883.10.20.1.25"/>
            <id root="dc745844-13ea-413e-8d98-c34e734b6857"/>
          </substanceAdministration>
        </entry>
        <entry>
          <supply classCode="SPLY">
            <templateId root="2.16.840.1.113883.10.20.1.25"/>
            <id root="da606831-646d-41a3-b21c-2c87352a5fbd"/>
          </supply>
        </entry>
      </section>
    </component>
  </structuredBody>
 </component>
</ClinicalDocument>
```

Figure 14: Plan Of Care Section example

Problem Section

[Section: templateId `2.16.840.1.113883.10.20.1.11`]

This section lists and describes all relevant clinical problems at the time the summary is generated. At a minimum, all pertinent current and historical problems should be listed. CDA R2 represents problems as Observations.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CCD] **SHALL** contain [1..1] `code/@code` = "11450-4" *Problem list* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CCD] **SHALL** contain [1..1] `title`
6. [CCD] **SHOULD** contain [1..*] `entry`, such that it
   a. contains *Problem Act* (templateId: `2.16.840.1.113883.10.20.1.27`)
7. [CCD] **SHALL** contain [1..1] `text`
8. [CCD] **SHOULD** satisfy: Contains a case-insensitive language-insensitive string containing 'problems'.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.11"
 assigningAuthorityName="CCD Problem Section"/>
          <code code="11450-4" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Problem list"/>
          <title>Problem list</title>
          <entry>
            <act classCode="ACT" moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.27"
 assigningAuthorityName="CCD Problem Act"/>
              <id root="8ff6a4fd-3635-4204-ae5f-613ac14a5279"/>
              <code nullFlavor="NA"/>
              <effectiveTime>
                <low value="1972"/>
```

```
                <high value="2008"/>
              </effectiveTime>
            </act>
          </entry>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 15: Problem Section example

Results Section

[Section: templateId `2.16.840.1.113883.10.20.1.14`]

This section contains 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, cardiac echo, nuclear medicine, pathology, and procedure observations. The section may contain all results for the period of time being summarized, but should include notable results such as abnormal values or relevant trends.

Lab 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, submitted to the lab.

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

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 where a gastroenterologist reports the size of a polyp observed during a colonoscopy.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CCD] **SHALL** contain [1..1] `code/@code` = "30954-2" *Relevant diagnostic tests and/or laboratory data* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CCD] **SHALL** contain [1..1] `title`
6. [CCD] **SHOULD** contain [1..*] `entry`, such that it
   a. contains *Result Organizer* (templateId: `2.16.840.1.113883.10.20.1.32`)
7. [CCD] **SHALL** contain [1..1] `text`
8. [CCD] **SHOULD** satisfy: Contains a case-insensitive language-insensitive string containing 'results'.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.1.14"
 assigningAuthorityName="CCD Results Section"/>
          <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
 laboratory data"/>
          <title>Relevant diagnostic tests and/or laboratory data</title>
          <entry>
            <organizer moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.32"
 assigningAuthorityName="CCD Result Organizer"/>
```

```
              <id root="4971821a-64d9-4450-bcb9-e240ab2d6c8f"/>
              <code/>
              <statusCode/>
            </organizer>
          </entry>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 16: Results Section example

Review Of Systems Section IHE

[Section: templateId `1.3.6.1.4.1.19376.1.5.3.1.3.18`]

The review of systems is a relevant collection of symptoms and function 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 was specifically asked if they had experienced or were currently experiencing, but had denied experiencing.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **SHALL** contain [1..1] `code/@code` = "10187-3" *REVIEW OF SYSTEMS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="1.3.6.1.4.1.19376.1.5.3.1.3.18"
 assigningAuthorityName="IHE Review Of Systems Section"/>
          <code code="10187-3" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="REVIEW OF SYSTEMS"/>
          <title>REVIEW OF SYSTEMS</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 17: Review Of Systems Section IHE example

Subjective Section

[Section: templateId `2.16.840.1.113883.10.20.21.2.2`]

This section describes in a narrative format the patient's current condition and/or interval changes as reported by the patient or by the patient's guardian or caregiver.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-PRGN-32: SHALL** contain [1..1] `code/@code` = "SUBJ-X" *SUBJECTIVE DATA* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CDT] **CONF-PRGN-15: SHALL** contain [1..1] `text`

6. [CDT] **CONF-PRGN-14: SHALL** contain [1..1] `title`
7. [CDT] **CONF-PRGN-15: SHOULD** satisfy: Contains clinical statements.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.21.2.2"
 assigningAuthorityName="CDT Subjective Section"/>
          <code code="SUBJ-X" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="SUBJECTIVE DATA"/>
          <title>SUBJECTIVE DATA</title>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 18: Subjective Section example

Vital Signs Section

[Section: templateId `2.16.840.1.113883.10.20.2.4`]

The Vital Signs section contains measured vital signs at the time of the examination. 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 Physical Exam.

1. Conforms to *RIM Infrastructure Root*
2. Conforms to *RIM Act*
3. Conforms to *CDA Section*
4. [CDT] **CONF-HP-87: SHALL** contain [1..1] `code/@code` = "8716-3" *VITAL SIGNS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC STATIC 2.26)
5. [CDT] **SHALL** contain [1..1] `text`
6. [CDT] **CONF-HP-87: SHOULD** contain [0..1] `entry`, such that it
   a. contains *CCD Vital Signs Organizer* (templateId: `2.16.840.1.113883.10.20.1.35`)
7. [CDT] **CONF-HP-87: SHOULD** satisfy: Contains clinical statements.

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <component>
    <structuredBody>
      <component>
        <section>
          <templateId root="2.16.840.1.113883.10.20.2.4"
 assigningAuthorityName="CDT Vital Signs Section"/>
          <code code="8716-3" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="VITAL SIGNS"/>
          <title>VITAL SIGNS</title>
          <entry>
            <organizer moodCode="EVN">
              <templateId root="2.16.840.1.113883.10.20.1.32"
 assigningAuthorityName="CCD Result Organizer"/>
              <templateId root="2.16.840.1.113883.10.20.1.35"
 assigningAuthorityName="CCD Vital Signs Organizer"/>
              <id root="236c6c0d-6fa3-4489-b959-24c43895273c"/>
```

```
              <code/>
              <statusCode/>
            </organizer>
          </entry>
        </section>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Figure 19: Vital Signs Section example

Chapter 4

CLINICAL STATEMENT TEMPLATES

This section of the Implementation Guide details the clinical statement entries referenced in the document section templates. The clinical statement entry templates are arranged alphabetically.

Chapter 5

OTHER CLASSES

This section of the Implementation Guide describes other classes that are not CDA Clinical Documents, Sections, or Clinical Statements.

Chapter 6

VALUE SETS

Topics:

The following tables summarize the value sets used in this Implementation Guide.

Progress Note Document Type Code

[OID `2.16.840.1.113883.11.20.8.1` from code system: LOINC]

OID: 2.16.840.1.113883.11.20.8.1

Name: Progress Note Document Type Code

Code System: 2.16.840.1.113883.6.1

Code System Name: LOINC

This value set includes the preferred code and pre-coordinated LOINC codes that have the scale DOC (document) and a 'component' referring to "subsequent evaluation notes". Although these pre-coordinated LOINC codes are available for use, we recommend the preferred code (11506-3 Progress Note). When these pre-coordinated codes are used, any coded values describing the author or performer of the service act or the practice setting must be consistent with the LOINC document type. Note: "Subsequent evaluation note" is equivalent to Progress Note.

REFERENCES

- HL7 Implementation Guide: CDA Release 2 – Continuity of Care Document (CCD) A CDA implementation of ASTM E2369-05 Standard Specification for Continuity of Care Record© (CCR) April 01, 2007 available through *HL7* .
- HL7 Implementation Guide for CDA Release 2 Quality Reporting Document Architecture (QRDA) Draft Standard for Trial Use March 2009. Available at: *Quality Reporting Document Architecture (QRDA)*
- HL7 Implementation Guide for CDA Release 2 CDA for Public Health Case Reports (PHCR) Informative Standard October 2009. Available through *HL7* .
- HL7 Implementation Guide for CDA Release 2: NHSN Healthcare Associated Infection (HAI) Reports, Release 2 Draft Standard for Trial Use January 2009 Available at: *NHSN Healthcare Associated Infection (HAI) Reports*
- Dolin RH, Alschuler L, Boyer S, Beebe C, Behlen FM, Biron PV, Shabo A, (Editors). HL7 Clinical Document Architecture, Release 2.0. ANSI-approved HL7 Standard; May 2005. Ann Arbor, Mich.: Health Level Seven, Inc. Available through *HL7* or if an HL7 member with the following link: *CDA Release 2 Normative Web Edition.*
- *LOINC®* : Logical Observation Identifiers Names and Codes, Regenstrief Institute.
- *SNOMED CT®* : SNOMED Clinical Terms SNOMED International Organization.
- Extensible Markup Language, *www.w3.org/XML* .
- Dolin RH, Alschuler L, Boyer S, Beebe C, Behlen FM, Biron PV, Shabo A., HL7 Clinical Document Architecture, Release 2. J Am Med Inform Assoc. 2006;13:30-39. Available at: *http://www.jamia.org/cgi/reprint/13/1/30* .
- Using SNOMED CT in HL7 Version 3; Implementation Guide, Release 1.5. Available through *HL7* or if an HL7 member with the following link: *Using SNOMED CT in HL7 Version 3*