Implementation Guide for CDA Release 2
MDHT Example Project
Optional Subtitle

Model Driven Health Tools

**PROTOTYPE: FOR DISCUSSION
AND DEMONSTRATION USE ONLY
(Consolidated Developer Documentation)**

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Acknowledgments

Revision History

Rev	Date	By Whom	Changes
New	July 2010	Dave Carlson	
First draft for posting	December 2010	Dave Carlson	Updated model content and publication format

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INTRODUCTION

Topics:

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Overview

This implementation guide is generated from UML models developed in the Open Health Tools (OHT) Model-Driven Health Tools (MDHT) project. The data specifications have been formalized into computational models expressed in UML. These models are used by automated tooling to generate this publication, plus validation tools and Java libraries for implementers.

Approach

Working with specifications generated from formal UML models provides the opportunity to work with the data from the perspective of the underlying model and electronic format and to explore many design issues thoroughly. Taking this as an initial step ensures that the data set developers and standards community can reach consensus prior to the larger commitment of time that would be required to bring the full data set into standard format.

This project supports reusability and ease of data collection through a standard data representation harmonized with work developed through Health Information Technology Expert Panel (HITEP), balloted through Health Level Seven (HL7) and/or recognized by the Health Information Technology Standards Panel (HITSP).

This implementation guide (IG) specifies a standard for electronic submission of NCRs in a Clinical Document Architecture (CDA), Release 2 format.

Scope

TODO: scope of this implementation guide.

Audience

The audience for this document includes software developers and implementers who wish to develop...

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 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 `templateIds` 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 `templateIds`).

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:hl7-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.

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 `2.16.840.1.113883.10.20.22.1.1`]

Known Subclasses: *Summary Of Care Record*

INLINE

1. **SHALL** contain at least one [1..*] `recordTarget`

    a. Such recordTargets **SHALL** contain exactly one [1..1] `patientRole`

        a. This patientRole **SHALL** contain exactly one [1..1] `patient`

            a. This patient Contains exactly one [1..1] `name`
            b. This patient Contains exactly one [1..1] `administrativeGenderCode`
            c. This patient Contains exactly one [1..1] `ethnicGroupCode`
            d. This patient Contains exactly one [1..1] `raceCode`
            e. This patient **SHALL** contain exactly one [1..1] `languageCommunication`

                a. This languageCommunication Contains exactly one [1..1] `languageCode`
            f. This patient Contains exactly one [1..1] `birthTime`

2. Contains zero or more [0..*] `documentationOf`

    a. Such documentationOfs Contains exactly one [1..1] `serviceEvent`

        a. This serviceEvent Contains at least one [1..*] `performer`

            a. Such performers Contains exactly one [1..1] `assignedEntity`, where its type is CDA Assigned Entity

                a. Contains exactly one [1..1] CDA Assigned Entity

3. Contains zero or one [0..1] `componentOf`

    a. This componentOf Contains exactly one [1..1] `encompassingEncounter`, where its type is CDA Encompassing Encounter

        a. Contains exactly one [1..1] CDA Encompassing Encounter

1. Contains exactly one [1..1] `typeId` with data type *Infrastructure Root Type Id*
2. Contains exactly one [1..1] `id` with data type II
3. Contains exactly one [1..1] `code` with data type CE
4. Contains exactly one [1..1] `effectiveTime` with data type TS
5. Contains exactly one [1..1] `confidentialityCode` with data type CE
6. Contains at least one [1..*] `author`, where its type is *Author*

    a. Contains exactly one [1..1] *Author*
7. Contains exactly one [1..1] `custodian`, where its type is *Custodian*

    a. Contains exactly one [1..1] *Custodian*
8. Contains exactly one [1..1] `component`, where its type is *Component2*

    a. Contains exactly one [1..1] *Component2*
9. **SHALL** contain at least one [1..*] `recordTarget`

    a. Such recordTargets **SHALL** contain exactly one [1..1] `patientRole`

        a. This patientRole **SHALL** contain exactly one [1..1] `patient`

            a. This patient Contains exactly one [1..1] `name`
            b. This patient Contains exactly one [1..1] `administrativeGenderCode`
            c. This patient Contains exactly one [1..1] `ethnicGroupCode`
            d. This patient Contains exactly one [1..1] `raceCode`

    e. This patient **SHALL** contain exactly one [1..1] `languageCommunication`

        a. This languageCommunication Contains exactly one [1..1] `languageCode`

    f. This patient Contains exactly one [1..1] `birthTime`

10. Contains zero or more [0..*] `documentationOf`

    a. Such documentationOfs Contains exactly one [1..1] `serviceEvent`

        a. This serviceEvent Contains at least one [1..*] `performer`

            a. Such performers Contains exactly one [1..1] `assignedEntity`, where its type is CDA Assigned Entity

                a. Contains exactly one [1..1] CDA Assigned Entity

11. Contains zero or one [0..1] `componentOf`

    a. This componentOf Contains exactly one [1..1] `encompassingEncounter`, where its type is CDA Encompassing Encounter

        a. Contains exactly one [1..1] CDA Encompassing Encounter

General Header Constraints example

```
<?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">
  <typeId root="2.16.840.1.113883.1.3"/>
  <id root="MDHT" extension="979889566"/>
  <code code="1080351470"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode code="1581377632"/>
  <recordTarget>
    <patientRole>
      <id root="MDHT" extension="989440545"/>
      <patient/>
    </patientRole>
  </recordTarget>
  <author>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <documentationOf>
    <serviceEvent>
      <performer/>
    </serviceEvent>
  </documentationOf>
  <componentOf>
    <encompassingEncounter/>
  </componentOf>
  <component/>
</ClinicalDocument>
```

Summary Of Care Record

[ClinicalDocument: templateId `2.16.840.1.113883.11.11.11.1.1`]

170.314(b)(1) (Incorporate summary of care record)

1. **SHALL** conform to *General Header Constraints* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)

2. **SHALL** contain exactly one [1..1] **component**

   - *MU2 Requirement for 'Smoking status'*

   a. Contains exactly one [1..1] *Consol Social History Section* (templateId: `2.16.840.1.113883.10.20.22.2.17`)

3. **SHALL** contain exactly one [1..1] **component**

   - *MU2 Requirement for 'Problems'*

   a. Contains exactly one [1..1] *Consol Problem Section* (templateId: `2.16.840.1.113883.10.20.22.2.5.1`)

4. Contains zero or one [0..1] **component**

   - *MU2 Requirement for : 'Medications'*

   a. Contains exactly one [1..1] *Consol Medications Section* (templateId: `2.16.840.1.113883.10.20.22.2.1.1`)

5. Contains zero or one [0..1] **component**

   - *MU2 Requirement for : 'Medications'*

   a. Contains exactly one [1..1] *Hospital Admission Medications Section Entries Optional* (templateId: `2.16.840.1.113883.10.20.22.2.44`)

6. Contains zero or one [0..1] **component**

   - *MU2 Requirement for : 'Medications'*

   a. Contains exactly one [1..1] *Consol Hospital Discharge Medications Section* (templateId: `2.16.840.1.113883.10.20.22.2.11.1`)

7. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Allergies Section* (templateId: `2.16.840.1.113883.10.20.22.2.6.1`)

8. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Allergies Section Entries Optional* (templateId: `2.16.840.1.113883.10.20.22.2.6`)

9. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Consol Results Section* (templateId: `2.16.840.1.113883.10.20.22.2.3.1`)

10. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Vital Signs Section* (templateId: `2.16.840.1.113883.10.20.22.2.4.1`)

11. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Vital Signs Section Entries Optional* (templateId: `2.16.840.1.113883.10.20.22.2.4`)

12. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Plan Of Care Section* (templateId: `2.16.840.1.113883.10.20.22.2.10`)

13. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Consol Procedures Section* (templateId: `2.16.840.1.113883.10.20.22.2.7.1`)

14. Contains exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Consol Immunizations Section* (templateId: `2.16.840.1.113883.10.20.22.2.2.1`)

15. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Medications Administered Section* (templateId: `2.16.840.1.113883.10.20.22.2.38`)

16. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Reason For Visit Section* (templateId: `2.16.840.1.113883.10.20.22.2.12`)

17. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Chief Complaint Section* (templateId: `1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1`)

18. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Chief Complaint And Reason For Visit Section* (templateId: `2.16.840.1.113883.10.20.22.2.13`)

19. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Assessment And Plan Section* (templateId: `2.16.840.1.113883.10.20.22.2.9`)

20. **SHALL** contain exactly one [1..1] **component**

   • *Instructions Section will satisfy the following MU2 elements :*
     - Clinical instructions
     - Recommended patient decision aids (if applicable to the visit)

   a. Contains exactly one [1..1] *Instructions Section*

21. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Interventions Section* (templateId: `2.16.840.1.113883.10.20.21.2.3`)

22. **SHALL** contain exactly one [1..1] **component**

   • *Inpatient Setting Only: Discharge instructions*

   • *Instructions Section will satisfy the following MU2 elements :*
     - Inpatient Setting Only: Discharge instructions

   a. Contains exactly one [1..1] *Consol Hospital Discharge Instructions Section* (templateId: `2.16.840.1.113883.10.20.22.2.41`)

23. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Assessment Section* (templateId: `2.16.840.1.113883.10.20.22.2.8`)

24. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Hospital Admission Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.43`)

25. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Hospital Discharge Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.24`)

26. Contains zero or one [0..1] **component**

   • *Captured in Encounters section if using CCD*

   a. Contains exactly one [1..1] *Consol Encounters Section* (templateId: `2.16.840.1.113883.10.20.22.2.22.1`)

27. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Postoperative Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.35`)

28. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Postprocedure Diagnosis Section* (templateId:
       `2.16.840.1.113883.10.20.22.2.36`)

29. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol History Of Past Illness Section* (templateId:
       `2.16.840.1.113883.10.20.22.2.20`)

30. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Preoperative Diagnosis Section* (templateId:
       `2.16.840.1.113883.10.20.22.2.34`)

31. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol Reason For Referral Section* (templateId:
       `1.3.6.1.4.1.19376.1.5.3.1.3.1`)

32. SHALL satisfy: cannotHaveChiefComplaintAndReasonForVisitWithChiefComplaintSectionOrReasonSection (CONF:10055)

33. SHALL have one of Assessment (2.16.840.1.113883.10.20.22.2.8) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Hospital Admission Diagnosis (2.16.840.1.113883.10.20.22.2.43) or Hospital Discharge Diagnosis (2.16.840.1.113883.10.20.22.2.24) or Postoperative Diagnosis (2.16.840.1.113883.10.20.22.2.35) or Postprocedure Diagnosis (2.16.840.1.113883.10.20.22.2.36) or Encounters (entries required: 2.16.840.1.113883.10.20.22.2.22.1) or Problem (entries required: 2.16.840.1.113883.10.20.22.2.5.1)

34. SHALL satisfy: canHaveEitherRequiredOrOptionalVitalSigns

35. SHALL satisfy: medicationListConstraint

1. SHALL conform to *General Header Constraints* template (templateId:
    `2.16.840.1.113883.10.20.22.1.1`)

2. Contains exactly one [1..1] **typeId** with data type *Infrastructure Root Type Id*

3. Contains exactly one [1..1] **id** with data type II

4. Contains exactly one [1..1] **code** with data type CE

5. Contains exactly one [1..1] **effectiveTime** with data type TS

6. Contains exactly one [1..1] **confidentialityCode** with data type CE

7. Contains at least one [1..*] **author**, where its type is *Author*

    a. Contains exactly one [1..1] *Author*

8. Contains exactly one [1..1] **custodian**, where its type is *Custodian*

    a. Contains exactly one [1..1] *Custodian*

9. Contains exactly one [1..1] **component**, where its type is *Component2*

    a. Contains exactly one [1..1] *Component2*

10. SHALL contain at least one [1..*] **recordTarget**

    a. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole**

        a. This patientRole **SHALL** contain exactly one [1..1] **patient**

           a. This patient Contains exactly one [1..1] **name**

           b. This patient Contains exactly one [1..1] **administrativeGenderCode**

           c. This patient Contains exactly one [1..1] **ethnicGroupCode**

           d. This patient Contains exactly one [1..1] **raceCode**

           e. This patient **SHALL** contain exactly one [1..1] **languageCommunication**

              a. This languageCommunication Contains exactly one [1..1] **languageCode**

           f. This patient Contains exactly one [1..1] **birthTime**

11. Contains zero or more [0..*] **documentationOf**

    a. Such documentationOfs Contains exactly one [1..1] **serviceEvent**

        a. This serviceEvent Contains at least one [1..*] **performer**

            a. Such performers Contains exactly one [1..1] **assignedEntity**, where its type is CDA Assigned Entity

                a. Contains exactly one [1..1] CDA Assigned Entity

12. Contains zero or one [0..1] **componentOf**

    a. This componentOf Contains exactly one [1..1] **encompassingEncounter**, where its type is CDA Encompassing Encounter

        a. Contains exactly one [1..1] CDA Encompassing Encounter

13. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Social History Section* (templateId: 2.16.840.1.113883.10.20.22.2.17)

    • *MU2 Requirement for 'Smoking status'*

14. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Problem Section* (templateId: 2.16.840.1.113883.10.20.22.2.5.1)

    • *MU2 Requirement for 'Problems'*

15. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol Medications Section* (templateId: 2.16.840.1.113883.10.20.22.2.1.1)

    • *MU2 Requirement for : 'Medications'*

16. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Hospital Admission Medications Section Entries Optional* (templateId: 2.16.840.1.113883.10.20.22.2.44)

    • *MU2 Requirement for : 'Medications'*

17. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol Hospital Discharge Medications Section* (templateId: 2.16.840.1.113883.10.20.22.2.11.1)

    • *MU2 Requirement for : 'Medications'*

18. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol Allergies Section* (templateId: 2.16.840.1.113883.10.20.22.2.6.1)

19. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Allergies Section Entries Optional* (templateId: 2.16.840.1.113883.10.20.22.2.6)

20. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Results Section* (templateId: 2.16.840.1.113883.10.20.22.2.3.1)

21. Contains zero or one [0..1] **component**

    a. Contains exactly one [1..1] *Consol Vital Signs Section* (templateId: 2.16.840.1.113883.10.20.22.2.4.1)

22. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Plan Of Care Section* (templateId: 2.16.840.1.113883.10.20.22.2.10)

23. **SHALL** contain exactly one [1..1] **component**

      a. Contains exactly one [1..1] *Consol Procedures Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.7.1`)

24. Contains exactly one [1..1] **component**

      a. Contains exactly one [1..1] *Consol Immunizations Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.2.1`)

25. SHALL contain exactly one [1..1] **component**

      a. Contains exactly one [1..1] *Medications Administered Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.38`)

26. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Consol Reason For Visit Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.12`)

27. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Consol Chief Complaint Section* (templateId:
         `1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1`)

28. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Consol Chief Complaint And Reason For Visit Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.13`)

29. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Assessment And Plan Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.9`)

30. SHALL contain exactly one [1..1] **component**

      a. Contains exactly one [1..1] *Instructions Section*

      • *Instructions Section will satisfy the following MU2 elements :*
        - Clinical instructions
        - Recommended patient decision aids (if applicable to the visit)

31. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Consol Interventions Section* (templateId:
         `2.16.840.1.113883.10.20.21.2.3`)

32. SHALL contain exactly one [1..1] **component**

      a. Contains exactly one [1..1] *Consol Hospital Discharge Instructions Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.41`)

      • *Inpatient Setting Only: Discharge instructions*

      • *Instructions Section will satisfy the following MU2 elements :*
        - Inpatient Setting Only: Discharge instructions

33. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Assessment Section* (templateId: `2.16.840.1.113883.10.20.22.2.8`)

34. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Hospital Admission Diagnosis Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.43`)

35. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Hospital Discharge Diagnosis Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.24`)

36. Contains zero or one [0..1] **component**

      a. Contains exactly one [1..1] *Consol Encounters Section* (templateId:
         `2.16.840.1.113883.10.20.22.2.22.1`)

- *Captured in Encounters section if using CCD*

37. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Postoperative Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.35`)

38. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Postprocedure Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.36`)

39. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol History Of Past Illness Section* (templateId: `2.16.840.1.113883.10.20.22.2.20`)

40. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Preoperative Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.34`)

41. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Reason For Referral Section* (templateId: `1.3.6.1.4.1.19376.1.5.3.1.3.1`)

42. **SHALL** satisfy: cannotHaveChiefComplaintAndReasonForVisitWithChiefComplaintSectionOrReasonSection (CONF:10055)

43. **SHALL** have one of Assessment (2.16.840.1.113883.10.20.22.2.8) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Hospital Admission Diagnosis (2.16.840.1.113883.10.20.22.2.43) or Hospital Discharge Diagnosis (2.16.840.1.113883.10.20.22.2.24) or Postoperative Diagnosis (2.16.840.1.113883.10.20.22.2.35) or Postprocedure Diagnosis (2.16.840.1.113883.10.20.22.2.36) or Encounters (entries required: 2.16.840.1.113883.10.20.22.2.22.1) or Problem (entries required: 2.16.840.1.113883.10.20.22.2.5.1)

44. **SHALL** satisfy: canHaveEitherRequiredOrOptionalVitalSigns

45. **SHALL** satisfy: medicationListConstraint

Summary Of Care Record example

```xml
<?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">
  <typeId root="2.16.840.1.113883.1.3"/>
  <id root="MDHT" extension="1896199359"/>
  <code code="700315202"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode code="1672736178"/>
  <recordTarget>
    <patientRole/>
  </recordTarget>
  <author>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <component>
    <structuredBody>
      <component>
        <section/>
      </component>
      <component>
        <section>
          <id root="MDHT" extension="1138499332"/>
          <title>TEXT FOR TITLE</title>
```

```xml
            <entry>
              <act/>
            </entry>
            <entry>
              <encounter/>
            </entry>
            <entry>
              <observation/>
            </entry>
          </section>
        </component>
        <component>
          <section>
            <id root="MDHT" extension="648372633"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <procedure/>
            </entry>
            <entry>
              <substanceAdministration classCode="SBADM"/>
            </entry>
            <entry>
              <supply classCode="SPLY"/>
            </entry>
            <entry>
              <observation/>
            </entry>
          </section>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section>
            <id root="MDHT" extension="1667315587"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <act/>
            </entry>
          </section>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section>
            <id root="MDHT" extension="911465970"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <observation/>
            </entry>
          </section>
        </component>
        <component>
          <section>
            <id root="MDHT" extension="1663489477"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <act/>
            </entry>
          </section>
        </component>
        <component>
          <section>
```

```
        <id root="MDHT" extension="1057928068"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <act/>
        </entry>
      </section>
    </component>
    <component>
      <section>
        <id root="MDHT" extension="278515232"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <observation/>
        </entry>
      </section>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section>
        <id root="MDHT" extension="320136053"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <act/>
        </entry>
      </section>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section>
        <id root="MDHT" extension="123504326"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <substanceAdministration classCode="SBADM"/>
        </entry>
      </section>
    </component>
    <component>
      <section/>
    </component>
    <component>
      <section>
        <id root="MDHT" extension="666247041"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <act/>
```

```
          </entry>
        </section>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section>
          <id root="MDHT" extension="1555468814"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <act/>
          </entry>
        </section>
      </component>
      <component>
        <section>
          <id root="MDHT" extension="912934191"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <act/>
          </entry>
        </section>
      </component>
      <component>
        <section/>
      </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

Chapter

3

SECTION TEMPLATES

Topics:

Allergies Section Entries Optional

[Section: templateId `2.16.840.1.113883.10.20.22.2.6`]

INLINE

1. **SHALL** conform to *Consol Allergies Section Entries Optional* template (templateId: `2.16.840.1.113883.10.20.22.2.6`)
2. **SHALL** contain exactly one [1..1] **entry**

   a. Contains exactly one [1..1] *Consol Allergy Problem Act* (templateId: `2.16.840.1.113883.10.20.22.4.30`)

1. **SHALL** conform to *Consol Allergies Section Entries Optional* template (templateId: `2.16.840.1.113883.10.20.22.2.6`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"48765-2"` *Allergies, adverse reactions, alerts* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:7801)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7802)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7803)
5. **SHOULD** contain zero or more [0..*] **entry** (CONF:7804, CONF:7805)

   a. Contains exactly one [1..1] *Allergy Problem Act* (templateId: `2.16.840.1.113883.10.20.22.4.30`)
6. **SHALL** contain exactly one [1..1] **entry**

   a. Contains exactly one [1..1] *Consol Allergy Problem Act* (templateId: `2.16.840.1.113883.10.20.22.4.30`)

Allergies Section Entries Optional example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="715252997"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

Assessment And Plan For Care Planning

[Section: templateId `2.16.840.1.113883.10.20.22.2.9`]

INLINE

1. **SHALL** conform to *Consol Assessment And Plan Section* template (templateId: `2.16.840.1.113883.10.20.22.2.9`)
2. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Procedure* (templateId: `2.16.840.1.113883.10.20.22.4.41`)
3. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Substance Administration* (templateId: `2.16.840.1.113883.10.20.1.25`)
4. Contains zero or one [0..1] **entry**

     a. Contains exactly one [1..1] *Consol Plan Of Care Activity Supply* (templateId: `2.16.840.1.113883.10.20.22.4.43`)

5. SHALL satisfy: oneOfPlanOfCareEntry

1. SHALL conform to *Consol Assessment And Plan Section* template (templateId: `2.16.840.1.113883.10.20.22.2.9`)

2. SHALL contain exactly one [1..1] **code/@code**=`"51847-2"` *ASSESSMENT AND PLAN* (CodeSystem: `2.16.840.1.113883.6.1 LOINC`) (CONF:7706)

3. SHALL contain exactly one [1..1] **text** (CONF:7707)

4. MAY contain zero or more [0..*] **entry** (CONF:8798)

     a. Contains exactly one [1..1] *Plan Of Care Activity Act* (templateId: `2.16.840.1.113883.10.20.22.4.39`)

5. Contains zero or one [0..1] **entry**

     a. Contains exactly one [1..1] *Consol Plan Of Care Activity Procedure* (templateId: `2.16.840.1.113883.10.20.22.4.41`)

6. Contains zero or one [0..1] **entry**

     a. Contains exactly one [1..1] *Consol Plan Of Care Activity Substance Administration* (templateId: `2.16.840.1.113883.10.20.1.25`)

7. Contains zero or one [0..1] **entry**

     a. Contains exactly one [1..1] *Consol Plan Of Care Activity Supply* (templateId: `2.16.840.1.113883.10.20.22.4.43`)

8. SHALL satisfy: oneOfPlanOfCareEntry

Assessment And Plan For Care Planning example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="67016829"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <procedure/>
  </entry>
  <entry>
    <substanceAdministration/>
  </entry>
  <entry>
    <supply/>
  </entry>
</section>
```

Assessment And Plan For Condition Or Concern

[Section: templateId `2.16.840.1.113883.10.20.22.2.9`]

INLINE

1. SHALL conform to *Consol Assessment And Plan Section* template (templateId: `2.16.840.1.113883.10.20.22.2.9`)

2. SHALL contain exactly one [1..1] **entry**

     a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: `2.16.840.1.113883.10.20.22.4.4`)

1. **SHALL** conform to *Consol Assessment And Plan Section* template (templateId:
   `2.16.840.1.113883.10.20.22.2.9`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"51847-2"` *ASSESSMENT AND PLAN* (CodeSystem:
   `2.16.840.1.113883.6.1` LOINC) (CONF:7706)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7707)
4. **MAY** contain zero or more [0..*] **entry** (CONF:8798)

   a. Contains exactly one [1..1] *Plan Of Care Activity Act* (templateId:
      `2.16.840.1.113883.10.20.22.4.39`)
5. **SHALL** contain exactly one [1..1] **entry**

   a. Contains exactly one [1..1] *Consol Problem Observation* (templateId:
      `2.16.840.1.113883.10.20.22.4.4`)

Assessment And Plan For Condition Or Concern example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="441914774"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <observation/>
  </entry>
</section>
```

Assessment And Plan Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.9`]

INLINE

1. **SHALL** conform to *Consol Assessment And Plan Section* template (templateId:
   `2.16.840.1.113883.10.20.22.2.9`)
2. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Procedure* (templateId:
      `2.16.840.1.113883.10.20.22.4.41`)
3. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Substance Administration* (templateId:
      `2.16.840.1.113883.10.20.1.25`)
4. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Supply* (templateId:
      `2.16.840.1.113883.10.20.22.4.43`)
5. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Problem Observation* (templateId:
      `2.16.840.1.113883.10.20.22.4.4`)

1. **SHALL** conform to *Consol Assessment And Plan Section* template (templateId:
   `2.16.840.1.113883.10.20.22.2.9`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"51847-2"` *ASSESSMENT AND PLAN* (CodeSystem:
   `2.16.840.1.113883.6.1` LOINC) (CONF:7706)
3. **SHALL** contain exactly one [1..1] **text** (CONF:7707)
4. **MAY** contain zero or more [0..*] **entry** (CONF:8798)

    a. Contains exactly one [1..1] *Plan Of Care Activity Act* (templateId: 2.16.840.1.113883.10.20.22.4.39)

5. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Procedure* (templateId: 2.16.840.1.113883.10.20.22.4.41)

6. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Substance Administration* (templateId: 2.16.840.1.113883.10.20.1.25)

7. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Supply* (templateId: 2.16.840.1.113883.10.20.22.4.43)

8. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: 2.16.840.1.113883.10.20.22.4.4)

Assessment And Plan Section example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="1644572787"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <procedure/>
  </entry>
  <entry>
    <substanceAdministration/>
  </entry>
  <entry>
    <supply/>
  </entry>
  <entry>
    <observation/>
  </entry>
</section>
```

Assessment Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.8]

INLINE

1. SHALL conform to *Consol Assessment Section* template (templateId: 2.16.840.1.113883.10.20.22.2.8)

2. SHALL contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: 2.16.840.1.113883.10.20.22.4.4)

1. SHALL conform to *Consol Assessment Section* template (templateId: 2.16.840.1.113883.10.20.22.2.8)

2. SHALL contain exactly one [1..1] **code/@code**="51848-0" *Assessments* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10382)

3. SHALL contain exactly one [1..1] **text** (CONF:7713)

4. **SHALL** contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: 2.16.840.1.113883.10.20.22.4.4)

Assessment Section example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="1540738771"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <observation/>
  </entry>
</section>
```

Hospital Admission Diagnosis Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.43]

INLINE

1. **SHALL** conform to *Consol Hospital Admission Diagnosis Section* template (templateId: 2.16.840.1.113883.10.20.22.2.43)
2. **SHALL** contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Hospital Admission Diagnosis* (templateId: 2.16.840.1.113883.10.20.22.4.34)

1. **SHALL** conform to *Consol Hospital Admission Diagnosis Section* template (templateId: 2.16.840.1.113883.10.20.22.2.43)
2. **SHALL** contain exactly one [1..1] **code/@code**="46241-6" *HOSPITAL ADMISSION DX* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
3. **SHALL** contain exactly one [1..1] **title** (CONF:9932)
4. **SHALL** contain exactly one [1..1] **text** (CONF:9933)
5. **SHOULD** contain zero or one [0..1] **entry** (CONF:9934, CONF:9935)

    a. Contains exactly one [1..1] *Hospital Admission Diagnosis* (templateId: 2.16.840.1.113883.10.20.22.4.34)

6. **SHALL** contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Hospital Admission Diagnosis* (templateId: 2.16.840.1.113883.10.20.22.4.34)

Hospital Admission Diagnosis Section example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="523004928"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

Hospital Admission Medications Section Entries Optional

[Section: templateId `2.16.840.1.113883.10.20.22.2.44`]

INLINE

1. **SHALL** conform to *Consol Hospital Admission Medications Section Entries Optional* template (templateId: `2.16.840.1.113883.10.20.22.2.44`)
2. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Consol Admission Medication* (templateId: `2.16.840.1.113883.10.20.22.4.36`)

1. **SHALL** conform to *Consol Hospital Admission Medications Section Entries Optional* template (templateId: `2.16.840.1.113883.10.20.22.2.44`)
2. **SHALL** contain exactly one [1..1] **code/@code**="42346-7" *MEDICATIONS ON ADMISSION* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:10099)
3. **SHALL** contain exactly one [1..1] **title** (CONF:10100)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10101)
5. **SHOULD** contain zero or more [0..*] **entry** (CONF:10102, CONF:10110)

   a. Contains exactly one [1..1] *Admission Medication* (templateId: `2.16.840.1.113883.10.20.22.4.36`)
6. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Consol Admission Medication* (templateId: `2.16.840.1.113883.10.20.22.4.36`)

Hospital Admission Medications Section Entries Optional example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="581265964"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

Hospital Discharge Diagnosis Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.24`]

INLINE

1. **SHALL** conform to *Consol Hospital Discharge Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.24`)
2. **SHALL** contain exactly one [1..1] **entry** (CONF:7984)

   a. Contains exactly one [1..1] *Consol Hospital Discharge Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.33`)

1. **SHALL** conform to *Consol Hospital Discharge Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.24`)
2. **SHALL** contain exactly one [1..1] **code/@code**="11535-2" *Hospital Discharge Diagnosis* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:7980)

3. **SHALL** contain exactly one [1..1] **title** (CONF:7981)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7982)
5. **SHOULD** contain zero or one [0..1] **entry** (CONF:7984)

    a. Contains exactly one [1..1] *Hospital Discharge Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.33`)

6. **SHALL** contain exactly one [1..1] **entry** (CONF:7984)

    a. Contains exactly one [1..1] *Consol Hospital Discharge Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.33`)

Hospital Discharge Diagnosis Section example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="1708530461"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

Instructions Section

[Section: templateId `null`]

INLINE

1. **SHALL** conform to *Consol Instructions Section* template (templateId: `2.16.840.1.113883.10.20.22.2.45`)
2. **SHALL** contain at least one [1..*] **entry**, where its type is *Consol Instructions*

    a. Contains exactly one [1..1] *Consol Instructions* (templateId: `2.16.840.1.113883.10.20.22.4.20`)

1. **SHALL** conform to *Consol Instructions Section* template (templateId: `2.16.840.1.113883.10.20.22.2.45`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"69730-0"` *Instructions* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:10113)
3. **SHALL** contain exactly one [1..1] **title** (CONF:10114)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10115)
5. **SHOULD** contain zero or more [0..*] **entry** (CONF:10116, CONF:10117)

    a. Contains exactly one [1..1] *Instructions* (templateId: `2.16.840.1.113883.10.20.22.4.20`)

6. **SHALL** contain at least one [1..*] **entry**, where its type is *Consol Instructions*

    a. Contains exactly one [1..1] *Consol Instructions* (templateId: `2.16.840.1.113883.10.20.22.4.20`)

Instructions Section example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="176502921"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
```

```
    </entry>
  </section>
```

Medications Administered Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.38`]

INLINE

1. **SHALL** conform to *Consol Medications Administered Section* template (templateId: `2.16.840.1.113883.10.20.22.2.38`)
2. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Consol Medication Activity* (templateId: `2.16.840.1.113883.10.20.22.4.16`)

1. **SHALL** conform to *Consol Medications Administered Section* template (templateId: `2.16.840.1.113883.10.20.22.2.38`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"29549-3"` *Medications Administered* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:8153)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8154)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8155)
5. **MAY** contain zero or more [0..*] **entry** (CONF:8156)

   a. Contains exactly one [1..1] *Medication Activity* (templateId: `2.16.840.1.113883.10.20.22.4.16`)
6. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Consol Medication Activity* (templateId: `2.16.840.1.113883.10.20.22.4.16`)

Medications Administered Section example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="558762069"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <substanceAdministration/>
  </entry>
</section>
```

Plan Of Care Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.10`]

INLINE

1. **SHALL** conform to *Consol Plan Of Care Section* template (templateId: `2.16.840.1.113883.10.20.22.2.10`)
2. Contains zero or one [0..1] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Act* (templateId: `2.16.840.1.113883.10.20.22.4.39`)
3. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Encounter* (templateId: `2.16.840.1.113883.10.20.22.4.40`)

4. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.1.25`)

5. SHALL contain one of Plan of Care Activity Act (2.16.840.1.113883.10.20.22.4.39) or Plan of Care Activity Encounter (2.16.840.1.113883.10.20.22.4.40) or Plan of Care Activity Observation (2.16.840.1.113883.10.20.22.4.44)

1. SHALL conform to *Consol Plan Of Care Section* template (templateId: `2.16.840.1.113883.10.20.22.2.10`)

2. SHALL contain exactly one [1..1] **code/@code**=`"18776-5"` *Treatment plan* (CodeSystem: `2.16.840.1.113883.6.1 LOINC`) (CONF:7724)

3. SHALL contain exactly one [1..1] **text** (CONF:7725)

4. MAY contain zero or one [0..1] **entry** (CONF:7726.CONF:8804)

    a. Contains exactly one [1..1] *Plan Of Care Activity Act* (templateId: `2.16.840.1.113883.10.20.22.4.39`)

5. MAY contain zero or one [0..1] **entry** (CONF:8805, CONF:8806)

    a. Contains exactly one [1..1] *Plan Of Care Activity Encounter* (templateId: `2.16.840.1.113883.10.20.22.4.40`)

6. MAY contain zero or one [0..1] **entry** (CONF:8808, CONF:8807)

    a. Contains exactly one [1..1] *Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.1.25`)

7. MAY contain zero or one [0..1] **entry** (CONF:8809, CONF:8810)

    a. Contains exactly one [1..1] *Plan Of Care Activity Procedure* (templateId: `2.16.840.1.113883.10.20.22.4.41`)

8. MAY contain zero or one [0..1] **entry** (CONF:8811, CONF:8812)

    a. Contains exactly one [1..1] *Plan Of Care Activity Substance Administration* (templateId: `2.16.840.1.113883.10.20.1.25`)

9. MAY contain zero or one [0..1] **entry** (CONF:8813, CONF:8814)

    a. Contains exactly one [1..1] *Plan Of Care Activity Supply* (templateId: `2.16.840.1.113883.10.20.22.4.43`)

10. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Act* (templateId: `2.16.840.1.113883.10.20.22.4.39`)

11. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Encounter* (templateId: `2.16.840.1.113883.10.20.22.4.40`)

12. Contains zero or one [0..1] **entry**

    a. Contains exactly one [1..1] *Consol Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.1.25`)

13. SHALL contain one of Plan of Care Activity Act (2.16.840.1.113883.10.20.22.4.39) or Plan of Care Activity Encounter (2.16.840.1.113883.10.20.22.4.40) or Plan of Care Activity Observation (2.16.840.1.113883.10.20.22.4.44)

Plan Of Care Section example

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

```
   <id root="MDHT" extension="977119538"/>
   <title>TEXT FOR TITLE</title>
   <text/>
   <entry>
     <act/>
   </entry>
   <entry>
     <encounter/>
   </entry>
   <entry>
     <observation/>
   </entry>
 </section>
```

Postoperative Diagnosis Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.35`]

INLINE

1. **SHALL** conform to *Consol Postoperative Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.35`)
2. **SHALL** contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: `2.16.840.1.113883.10.20.22.4.4`)

1. **SHALL** conform to *Consol Postoperative Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.35`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"10218-6"` *Postoperative Diagnosis* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:8102)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8103)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8104)
5. **SHALL** contain exactly one [1..1] **entry**

    a. Contains exactly one [1..1] *Consol Problem Observation* (templateId: `2.16.840.1.113883.10.20.22.4.4`)

Postoperative Diagnosis Section example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="1823618878"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <observation/>
  </entry>
</section>
```

Postprocedure Diagnosis Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.36`]

INLINE

1. **SHALL** conform to *Consol Postprocedure Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.36`)
2. **SHALL** contain exactly one [1..1] **entry** (CONF:8762, CONF:8764)

   a. Contains exactly one [1..1] *Consol Postprocedure Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.51`)

1. **SHALL** conform to *Consol Postprocedure Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.36`)
2. **SHALL** contain zero or one [0..1] **code/@code**=`"59769-0"` *Postprocedure Diagnosis* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:8169)
3. **SHALL** contain zero or one [0..1] **title** (CONF:8170)
4. **SHALL** contain zero or one [0..1] **text** (CONF:8171)
5. **SHOULD** contain zero or one [0..1] **entry** (CONF:8762, CONF:8764)

   a. Contains exactly one [1..1] *Postprocedure Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.51`)

6. **SHALL** contain exactly one [1..1] **entry** (CONF:8762, CONF:8764)

   a. Contains exactly one [1..1] *Consol Postprocedure Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.51`)

Postprocedure Diagnosis Section example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="830252253"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

Preoperative Diagnosis Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.34`]

INLINE

1. **SHALL** conform to *Consol Preoperative Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.34`)
2. **SHALL** contain exactly one [1..1] **entry** (CONF:10096, CONF:10097)

   a. Contains exactly one [1..1] *Consol Preoperative Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.65`)

1. **SHALL** conform to *Consol Preoperative Diagnosis Section* template (templateId: `2.16.840.1.113883.10.20.22.2.34`)
2. **SHALL** contain exactly one [1..1] **code/@code**=`"10219-4"` *Preoperative Diagnosis* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:8098)
3. **SHALL** contain exactly one [1..1] **title** (CONF:8099)
4. **SHALL** contain exactly one [1..1] **text** (CONF:8100)
5. **SHOULD** contain zero or one [0..1] **entry** (CONF:10096, CONF:10097)

   a. Contains exactly one [1..1] *Preoperative Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.65`)

6. **SHALL** contain exactly one [1..1] **entry** (CONF:10096, CONF:10097)

    a. Contains exactly one [1..1] *Consol Preoperative Diagnosis* (templateId: 2.16.840.1.113883.10.20.22.4.65)

Preoperative Diagnosis Section example

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
  <id root="MDHT" extension="2084553916"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
</section>
```

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

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

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*