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.

Clinical Office Visit Summary

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

MU2 170.314(e)(2) Clinical Summary

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**

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

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

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

    a. Contains exactly one [1..1] *Results Section* (templateId: `2.16.840.1.113883.10.20.22.2.3.1`)
6. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Vital Signs Section* (templateId: `2.16.840.1.113883.10.20.22.2.4.1`)
7. **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`)
8. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Procedures Section* (templateId: `2.16.840.1.113883.10.20.22.2.7.1`)
9. **SHALL** contain 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`)
10. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Medications Administered Section* (templateId: `2.16.840.1.113883.10.20.22.2.38`)
11. 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`)
12. 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`)
13. 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`)
14. 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`)
15. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Consol Instructions Section* (templateId: `2.16.840.1.113883.10.20.22.2.45`)

16. **SHALL** contain exactly one [1..1] `component`

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

17. **SHALL** satisfy: responsibleParty

18. **SHALL** have one of Reason for Visit (2.16.840.1.113883.10.20.22.2.12) or Chief Complaint (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or Chief Complaint and Reason for Visit (2.16.840.1.113883.10.20.22.2.13)

19. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

20. **SHALL** satisfy: Date of Visit

21. **SHALL** satisfy: Visit Location

22. **SHALL** satisfy: Future Scheduled Appointments and Referrals to Other Providers

23. **SHALL** satisfy: instructionsEntry

24. **SHALL** satisfy: medicationsAdministeredEntry

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

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

3. **SHALL** contain exactly one [1..1] `realmCode/@code`=`"US"` (CONF:16791)

4. **SHALL** contain exactly one [1..1] `typeId` (CONF:5361)

5. **SHALL** contain exactly one [1..1] `id` (CONF:5363)

6. **SHALL** contain exactly one [1..1] `code` (CONF:5253)

7. **SHALL** contain exactly one [1..1] `title` (CONF:5254)

8. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:5256)

    • *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

9. **SHALL** contain exactly one [1..1] `confidentialityCode`, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* `2.16.840.1.113883.1.11.16926` **STATIC** (CONF:5259)

10. **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *Language* `2.16.840.1.113883.1.11.11526` **DYNAMIC** (CONF:5372)

11. **MAY** contain zero or one [0..1] `setId` (CONF:5261)

12. **MAY** contain zero or one [0..1] `versionNumber` (CONF:5264)

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

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

14. **SHALL** contain at least one [1..*] `author` (CONF:5444)

    a. Such authors **SHALL** contain exactly one [1..1] `time` (CONF:5445)

    b. Such authors **SHALL** contain exactly one [1..1] `assignedAuthor` (CONF:5448)

        a. This assignedAuthor **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5452)

        b. This assignedAuthor **SHOULD** contain zero or one [0..1] `code` (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16788)

        c. This assignedAuthor **SHALL** contain exactly one [1..1] `id` (CONF:5449)

        d. This assignedAuthor **SHALL** contain at least one [1..*] `telecom` with data type *TEL* (CONF:5428)

        e. This assignedAuthor **SHOULD** contain zero or one [0..1] `assignedAuthoringDevice`

            a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] `manufacturerModelName` (CONF:16784)

            b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] `softwareName` (CONF:16785)

      f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

          a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)

      g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

      h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

   c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

15. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:5441)

   a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

      a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

      b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9944)

      c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

      d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

      e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

          a. This assignedPerson **SHALL** contain at least one [1..*] **name**

      f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

16. **SHALL** contain exactly one [1..1] **custodian** (iv., CONF:5519)

   a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:5520)

      a. This assignedCustodian **SHALL** contain zero or one [0..1] **representedCustodianOrganization** (CONF:5521)

          a. This representedCustodianOrganization **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5559)

          b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)

          c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)

          d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with data type *TEL* (CONF:5525)

          e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

17. **MAY** contain zero or more [0..*] **informationRecipient** (CONF:5565)

   a. Such informationRecipients **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:5566)

      a. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:5568)

          a. This informationRecipient **SHALL** contain at least one [1..*] **name** (CONF:5470)

      b. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:5577)

          a. This receivedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5578)

18. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:5579)

   a. This legalAuthenticator **SHALL** contain exactly one [1..1] **time** (CONF:5580)

   b. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5583, CONF:5584)

   c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

      a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

    b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC**

    c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

    d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

    e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

        a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

    f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

19.MAY contain zero or more [0..*] **authenticator** (CONF:5607)

    a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)

    b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5610)

    c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16826)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

        f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

20.MAY contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9947)

        c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

        d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

        a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

            a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

21.MAY contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] **time** (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/ @typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

22. **MAY** contain zero or more [0..*] `inFulfillmentOf` (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] `order` (CONF:9953)

        a. This order **SHALL** contain at least one [1..*] `id` (CONF:9954)

23. **MAY** contain zero or more [0..*] `authorization` (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] `consent` (CONF:16793)

        a. This consent **MAY** contain zero or one [0..1] `code` (CONF:16795)

        The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

        b. This consent **MAY** contain zero or more [0..*] `id` (CONF:16794)

        c. This consent **SHALL** contain exactly one [1..1] `statusCode` (CONF:16797)**/@code**="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

        a. This patientRole **SHALL** conform to *Consol Patient Role*

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

            a. This patient **SHALL** conform to *Consol Patient*

            b. This patient **SHALL** contain exactly one [1..1] `ethnicGroupCode`, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

            c. This patient **SHALL** contain exactly one [1..1] `raceCode`, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

                a. This languageCommunication **SHALL** conform to *Consol Language Communication*

                b. This languageCommunication **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

25. **SHALL** contain at least one [1..*] `documentationOf`

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] `serviceEvent` (CONF:14836)

        a. This serviceEvent **SHALL** conform to *Consol Service Event*

        b. This serviceEvent **SHALL** contain at least one [1..*] `performer`

            a. Such performers **SHALL** conform to *Consol Performer1*

            b. Such performers **SHALL** contain exactly one [1..1] `assignedEntity`

                a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

                b. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson`, where its type is CDA Person

                    a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] `encompassingEncounter` (CONF:9956)

        a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

        b. This encompassingEncounter **SHALL** contain at least one [1..*] `encounterParticipant`, where its type is CDA Encounter Participant

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

27. **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`)

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

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

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

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

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

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

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

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

32. **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`)

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

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

34. **SHALL** contain 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`)

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

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

36. 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`)

37. 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`)

38. 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`)

39. 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`)

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

    a. Contains exactly one [1..1] *Consol Instructions Section* (templateId: `2.16.840.1.113883.10.20.22.2.45`)

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

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

42. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

43. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

44. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

45. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

46. id **SHALL** be a globally unique identifier for the document (CONF:9991)

47. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

48. If setId is present versionNumber **SHALL** be present (CONF:6380)

49. If versionNumber is present setId **SHALL** be present (CONF:6387)

50. **SHALL** satisfy: responsibleParty

51. **SHALL** have one of Reason for Visit (2.16.840.1.113883.10.20.22.2.12) or Chief Complaint (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or Chief Complaint and Reason for Visit (2.16.840.1.113883.10.20.22.2.13)

52. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

53. **SHALL** satisfy: Date of Visit

54. **SHALL** satisfy: Visit Location

55. **SHALL** satisfy: Future Scheduled Appointments and Referrals to Other Providers

56. **SHALL** satisfy: instructionsEntry

57. **SHALL** satisfy: medicationsAdministeredEntry

Clinical Office Visit Summary 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="835599148"/>
  <code code="1639195646"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="61aeaeb4-9d26-4a66-bfc3-807e712f2d98"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <component>
    <structuredBody>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
```

```
        <section/>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <id root="MDHT" extension="1108813697"/>
          <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
laboratory data"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <organizer moodCode="EVN">
              <typeId root="2.16.840.1.113883.1.3"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
              <id root="MDHT" extension="733101201"/>
              <code code="181587775"/>
              <statusCode code="completed"/>
              <effectiveTime>
                <low value="2012"/>
                <high value="2012"/>
              </effectiveTime>
              <component>
                <observation classCode="OBS" moodCode="EVN">
                  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
                  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
                </observation>
              </component>
            </organizer>
          </entry>
        </section>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <id root="MDHT" extension="729812640"/>
          <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Treatment plan"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <act/>
          </entry>
          <entry>
            <encounter/>
          </entry>
          <entry>
            <observation/>
          </entry>
        </section>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
```

```xml
            <id root="MDHT" extension="1319401564"/>
            <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of procedures"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <procedure classCode="PROC">
                <typeId root="2.16.840.1.113883.1.3"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
                <id root="MDHT" extension="1710321247"/>
                <code code="1430987554"/>
                <effectiveTime>
                  <low value="2012"/>
                  <high value="2012"/>
                </effectiveTime>
                <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
                <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
              </procedure>
            </entry>
          </section>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section>
            <typeId root="2.16.840.1.113883.1.3"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
            <id root="MDHT" extension="335524027"/>
            <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
            <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>
           <typeId root="2.16.840.1.113883.1.3"/>
           <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
           <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
           <id root="MDHT" extension="827530785"/>
           <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Social history"/>
           <title>TEXT FOR TITLE</title>
           <entry>
             <observation classCode="OBS" moodCode="EVN">
               <typeId root="2.16.840.1.113883.1.3"/>
               <templateId root="2.16.840.1.113883.10.22.4.78"/>
               <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
               <id root="MDHT" extension="1083714572"/>
               <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
 codeSystemName="HL7ActCode" displayName="Assertion"/>
               <statusCode code="completed"/>
               <effectiveTime>
                 <low value="2012"/>
                 <high value="2012"/>
               </effectiveTime>
             </observation>
           </entry>
         </section>
       </component>
     </structuredBody>
   </component>
 </ClinicalDocument>
```

General Header Constraints

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

Known Subclasses: *Summary Of Care Record*, *Clinical Office Visit Summary*, *View Download Transmit Summary*

INLINE

1. **SHALL** conform to *Consol General Header Constraints* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
2. **SHALL** contain at least one [1..*] **recordTarget**

    a. Such recordTargets **SHALL** conform to *Consol Record Target*
    b. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole**

        a. This patientRole **SHALL** conform to *Consol Patient Role*
        b. This patientRole **SHALL** contain exactly one [1..1] **patient**

            a. This patient **SHALL** conform to *Consol Patient*
            b. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**
            c. This patient **SHALL** contain exactly one [1..1] **raceCode**, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**
            d. This patient **SHALL** contain exactly one [1..1] **languageCommunication**

                a. This languageCommunication **SHALL** conform to *Consol Language Communication*
                b. This languageCommunication **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

3. **SHALL** contain at least one [1..*] **documentationOf**

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

     b. Such documentationOfs **SHALL** contain exactly one [1..1] `serviceEvent` (CONF:14836)

        a. This serviceEvent **SHALL** conform to *Consol Service Event*

        b. This serviceEvent **SHALL** contain at least one [1..*] `performer`

           a. Such performers **SHALL** conform to *Consol Performer1*

           b. Such performers **SHALL** contain exactly one [1..1] `assignedEntity`

               a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

               b. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson`, where its type is CDA Person

                   a. Contains exactly one [1..1] CDA Person

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

     a. This componentOf **SHALL** conform to *Consol Component Of*

     b. This componentOf **SHALL** contain exactly one [1..1] `encompassingEncounter` (CONF:9956)

        a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

        b. This encompassingEncounter **SHALL** contain at least one [1..*] `encounterParticipant`, where its type is CDA Encounter Participant

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

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

2. **SHALL** contain exactly one [1..1] `realmCode/@code`="US" (CONF:16791)

3. **SHALL** contain exactly one [1..1] `typeId` (CONF:5361)

4. **SHALL** contain exactly one [1..1] `id` (CONF:5363)

5. **SHALL** contain exactly one [1..1] `code` (CONF:5253)

6. **SHALL** contain exactly one [1..1] `title` (CONF:5254)

7. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:5256)

- *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

8. **SHALL** contain exactly one [1..1] `confidentialityCode`, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* 2.16.840.1.113883.1.11.16926 **STATIC** (CONF:5259)

9. **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *Language* 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372)

10. **MAY** contain zero or one [0..1] `setId` (CONF:5261)

11. **MAY** contain zero or one [0..1] `versionNumber` (CONF:5264)

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

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

13. **SHALL** contain at least one [1..*] `author` (CONF:5444)

     a. Such authors **SHALL** contain exactly one [1..1] `time` (CONF:5445)

     b. Such authors **SHALL** contain exactly one [1..1] `assignedAuthor` (CONF:5448)

        a. This assignedAuthor **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5452)

        b. This assignedAuthor **SHOULD** contain zero or one [0..1] `code` (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

        c. This assignedAuthor **SHALL** contain exactly one [1..1] `id` (CONF:5449)

        d. This assignedAuthor **SHALL** contain at least one [1..*] `telecom` with data type *TEL* (CONF:5428)

    e. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice**

        a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)

        b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)

    f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

        a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)

    g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

    h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

  c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

14. MAY contain zero or one [0..1] **dataEnterer** (CONF:5441)

  a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

    a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

    b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9944)

    c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

    d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

    e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

        a. This assignedPerson **SHALL** contain at least one [1..*] **name**

    f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

15. SHALL contain exactly one [1..1] **custodian** (iv., CONF:5519)

  a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:5520)

    a. This assignedCustodian **SHALL** contain zero or one [0..1] **representedCustodianOrganization** (CONF:5521)

        a. This representedCustodianOrganization **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5559)

        b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)

        c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)

        d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with data type *TEL* (CONF:5525)

        e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

16. MAY contain zero or more [0..*] **informationRecipient** (CONF:5565)

  a. Such informationRecipients **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:5566)

    a. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:5568)

        a. This informationRecipient **SHALL** contain at least one [1..*] **name** (CONF:5470)

    b. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:5577)

        a. This receivedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5578)

17. SHOULD contain zero or one [0..1] **legalAuthenticator** (CONF:5579)

  a. This legalAuthenticator **SHALL** contain exactly one [1..1] **time** (CONF:5580)

  b. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5583, CONF:5584)

    c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC**

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

        f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

18. **MAY** contain zero or more [0..*] **authenticator** (CONF:5607)

    a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)

    b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5610)

    c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16826)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

        f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

19. **MAY** contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9947)

        c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

        d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

        a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

            a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

20. **MAY** contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] `time` (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

21. **MAY** contain zero or more [0..*] `inFulfillmentOf` (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] `order` (CONF:9953)

        a. This order **SHALL** contain at least one [1..*] `id` (CONF:9954)

22. **MAY** contain zero or more [0..*] `authorization` (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] `consent` (CONF:16793)

        a. This consent **MAY** contain zero or one [0..1] `code` (CONF:16795)

        The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

        b. This consent **MAY** contain zero or more [0..*] `id` (CONF:16794)

        c. This consent **SHALL** contain exactly one [1..1] `statusCode` (CONF:16797)/`@code`="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

        a. This patientRole **SHALL** conform to *Consol Patient Role*

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

            a. This patient **SHALL** conform to *Consol Patient*

            b. This patient **SHALL** contain exactly one [1..1] `ethnicGroupCode`, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

            c. This patient **SHALL** contain exactly one [1..1] `raceCode`, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

                a. This languageCommunication **SHALL** conform to *Consol Language Communication*

                b. This languageCommunication **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

24. **SHALL** contain at least one [1..*] `documentationOf`

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] `serviceEvent` (CONF:14836)

        a. This serviceEvent **SHALL** conform to *Consol Service Event*

        b. This serviceEvent **SHALL** contain at least one [1..*] `performer`

            a. Such performers **SHALL** conform to *Consol Performer1*

            b. Such performers **SHALL** contain exactly one [1..1] `assignedEntity`

                a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

                b. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson`, where its type is CDA Person

                    a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] `encompassingEncounter` (CONF:9956)

      a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

      b. This encompassingEncounter **SHALL** contain at least one [1..*] `encounterParticipant`, where its type is CDA Encounter Participant

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

26. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

27. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

28. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

29. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

30. id **SHALL** be a globally unique identifier for the document (CONF:9991)

31. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

32. If setId is present versionNumber **SHALL** be present (CONF:6380)

33. If versionNumber is present setId **SHALL** be present (CONF:6387)

General Header Constraints 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="326985419"/>
  <code code="1097446634"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="1cae1750-dc3d-4e65-b562-82956f8bbac3"/>
  <versionNumber value="1"/>
  <recordTarget>
    <patientRole>
      <id root="MDHT" extension="1353024433"/>
      <addr/>
      <telecom/>
      <patient>
        <raceCode codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race
 and Ethnicity - CDC"/>
        <ethnicGroupCode codeSystem="2.16.840.1.113883.6.238"
 codeSystemName="Race and Ethnicity - CDC"/>
      </patient>
    </patientRole>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <documentationOf>
    <serviceEvent>
```

```
        <effectiveTime>
          <low value="2012"/>
          <high value="2012"/>
        </effectiveTime>
        <performer/>
      </serviceEvent>
    </documentationOf>
    <componentOf>
      <encompassingEncounter>
        <id root="MDHT" extension="142760695"/>
        <effectiveTime>
          <low value="2012"/>
          <high value="2012"/>
        </effectiveTime>
        <encounterParticipant/>
      </encompassingEncounter>
    </componentOf>
    <component/>
  </ClinicalDocument>
```

Summary Of Care Record

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

Known Subclasses: *Transition Of Care Ambulatory Summary*, *Transition Of Care Inpatient Summary*

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

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

   a. Contains exactly one [1..1] *Results Section* (templateId: `2.16.840.1.113883.10.20.22.2.3.1`)
7. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Consol Vital Signs Section* (templateId: `2.16.840.1.113883.10.20.22.2.4.1`)
8. **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`)
9. **SHALL** contain exactly one [1..1] **component**

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

10. **SHALL** contain 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`)

11. 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`)

12. 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`)

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

    • *Captured in Encounters section if using CCD*

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

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

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

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

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

16. 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`)

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

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

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

    a. Contains exactly one [1..1] *Consol Functional Status Section* (templateId: `2.16.840.1.113883.10.20.22.2.14`)

19. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

20. **SHALL** have one of CognitiveStatusProblemObservation or CognitiveStatusResultObservation or CognitiveStatusResultOrganizer

21. **SHALL** have one of FunctionalStatusProblemObservation or FunctionalStatusResultObservation or FunctionalStatusResultOrganizer

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

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

3. **SHALL** contain exactly one [1..1] **realmCode/@code**=`"US"` (CONF:16791)

4. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361)

5. **SHALL** contain exactly one [1..1] **id** (CONF:5363)

6. **SHALL** contain exactly one [1..1] **code** (CONF:5253)

7. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256)

    • *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

9. **SHALL** contain exactly one [1..1] **confidentialityCode**, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* `2.16.840.1.113883.1.11.16926` **STATIC** (CONF:5259)

10. **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *Language* `2.16.840.1.113883.1.11.11526` **DYNAMIC** (CONF:5372)

11. **MAY** contain zero or one [0..1] **setId** (CONF:5261)

12. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264)

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

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

14. **SHALL** contain at least one [1..*] **author** (CONF:5444)

   a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)

   b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)

      a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5452)

      b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16788)

      c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:5449)

      d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5428)

      e. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice**

         a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)

         b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)

      f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

         a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)

      g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

      h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

   c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

15. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:5441)

   a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

      a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

      b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101` NUCC Health Care Provider Taxonomy) (CONF:9944)

      c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

      d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

      e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

         a. This assignedPerson **SHALL** contain at least one [1..*] **name**

      f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

16. **SHALL** contain exactly one [1..1] **custodian** (iv., CONF:5519)

   a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:5520)

      a. This assignedCustodian **SHALL** contain zero or one [0..1] **representedCustodianOrganization** (CONF:5521)

    a. This representedCustodianOrganization **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5559)

    b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)

    c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)

    d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with data type *TEL* (CONF:5525)

    e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

17. MAY contain zero or more [0..*] **informationRecipient** (CONF:5565)

    a. Such informationRecipients **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:5566)

        a. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:5568)

            a. This informationRecipient **SHALL** contain at least one [1..*] **name** (CONF:5470)

        b. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:5577)

            a. This receivedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5578)

18. SHOULD contain zero or one [0..1] **legalAuthenticator** (CONF:5579)

    a. This legalAuthenticator **SHALL** contain exactly one [1..1] **time** (CONF:5580)

    b. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5583, CONF:5584)

    c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC**

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

        f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

19. MAY contain zero or more [0..*] **authenticator** (CONF:5607)

    a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)

    b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5610)

    c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

        f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

20. MAY contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9947)

        c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

        d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

        a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

            a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

21. **MAY** contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] **time** (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

22. **MAY** contain zero or more [0..*] **inFulfillmentOf** (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] **order** (CONF:9953)

        a. This order **SHALL** contain at least one [1..*] **id** (CONF:9954)

23. **MAY** contain zero or more [0..*] **authorization** (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] **consent** (CONF:16793)

        a. This consent **MAY** contain zero or one [0..1] **code** (CONF:16795)

        The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

        b. This consent **MAY** contain zero or more [0..*] **id** (CONF:16794)

        c. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797)**/@code**="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

        a. This patientRole **SHALL** conform to *Consol Patient Role*

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

            a. This patient **SHALL** conform to *Consol Patient*

            b. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

            c. This patient **SHALL** contain exactly one [1..1] **raceCode**, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

          a. This languageCommunication **SHALL** conform to *Consol Language Communication*

          b. This languageCommunication **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

25. **SHALL** contain at least one [1..*] `documentationOf`

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] `serviceEvent` (CONF:14836)

      a. This serviceEvent **SHALL** conform to *Consol Service Event*

      b. This serviceEvent **SHALL** contain at least one [1..*] `performer`

          a. Such performers **SHALL** conform to *Consol Performer1*

          b. Such performers **SHALL** contain exactly one [1..1] `assignedEntity`

              a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

              b. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson`, where its type is CDA Person

                  a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] `encompassingEncounter` (CONF:9956)

      a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

      b. This encompassingEncounter **SHALL** contain at least one [1..*] `encounterParticipant`, where its type is CDA Encounter Participant

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

27. **SHALL** contain exactly one [1..1] `component`

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

    • *MU2 Requirement for 'Smoking status'*

28. **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'*

29. **SHALL** contain exactly one [1..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'*

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

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

31. **SHALL** contain exactly one [1..1] `component`

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

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

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

33. **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`)

34. **SHALL** contain exactly one [1..1] `component`

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

35. **SHALL** contain 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`)

36. 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`)

37. 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`)

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

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

    • *Captured in Encounters section if using CCD*

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

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

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

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

41. 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`)

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

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

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

    a. Contains exactly one [1..1] *Consol Functional Status Section* (templateId: `2.16.840.1.113883.10.20.22.2.14`)

44. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

45. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

46. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

47. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

48. id **SHALL** be a globally unique identifier for the document (CONF:9991)

49. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

50. If setId is present versionNumber **SHALL** be present (CONF:6380)

51. If versionNumber is present setId **SHALL** be present (CONF:6387)

52. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

53. **SHALL** have one of CognitiveStatusProblemObservation or CognitiveStatusResultObservation or CognitiveStatusResultOrganizer

54. **SHALL** have one of FunctionalStatusProblemObservation or FunctionalStatusResultObservation or FunctionalStatusResultOrganizer

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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="1649616592"/>
  <code code="346806162"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="031265ef-8258-4348-8f1e-c15f08652681"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <component>
    <structuredBody>
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        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.22"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
          <id root="MDHT" extension="1232782374"/>
          <code code="46240-8" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Encounters"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <encounter classCode="ENC" moodCode="EVN">
              <typeId root="2.16.840.1.113883.1.3"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
              <id root="MDHT" extension="2026330638"/>
              <code codeSystem="2.16.840.1.113883.6.12"
 codeSystemName="CPT-4"/>
              <effectiveTime>
                <low value="2012"/>
                <high value="2012"/>
              </effectiveTime>
            </encounter>
          </entry>
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      <component>
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          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <id root="MDHT" extension="283849168"/>
          <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Treatment plan"/>
```

```
        <title>TEXT FOR TITLE</title>
        <entry>
          <act/>
        </entry>
        <entry>
          <encounter/>
        </entry>
        <entry>
          <observation/>
        </entry>
      </section>
    </component>
    <component>
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        <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
        <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
        <id root="MDHT" extension="1422218001"/>
        <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
        <title>TEXT FOR TITLE</title>
        <entry>
          <procedure/>
        </entry>
        <entry>
          <substanceAdministration classCode="SBADM"/>
        </entry>
        <entry>
          <supply classCode="SPLY"/>
        </entry>
        <entry>
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        </entry>
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    <component>
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        <id root="MDHT" extension="684501339"/>
        <code code="51848-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Assessments"/>
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    <component>
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```

```
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      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
          <id root="MDHT" extension="1830716070"/>
          <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Social history"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <observation classCode="OBS" moodCode="EVN">
              <typeId root="2.16.840.1.113883.1.3"/>
              <templateId root="2.16.840.1.113883.10.22.4.78"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
              <id root="MDHT" extension="573607690"/>
              <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Assertion"/>
              <statusCode code="completed"/>
              <effectiveTime>
                <low value="2012"/>
                <high value="2012"/>
              </effectiveTime>
            </observation>
          </entry>
        </section>
      </component>
      <component>
        <section>
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          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <id root="MDHT" extension="1894209836"/>
          <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
laboratory data"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <organizer moodCode="EVN">
              <typeId root="2.16.840.1.113883.1.3"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
              <id root="MDHT" extension="1218449282"/>
              <code code="543851040"/>
              <statusCode code="completed"/>
              <effectiveTime>
                <low value="2012"/>
                <high value="2012"/>
              </effectiveTime>
              <component>
                <observation classCode="OBS" moodCode="EVN">
                  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
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                </observation>
              </component>
            </organizer>
          </entry>
        </section>
```

```
        </component>
        <component>
          <section/>
        </component>
        <component>
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            <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
            <id root="MDHT" extension="928891077"/>
            <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC" displayName="History of procedures"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <procedure classCode="PROC">
                <typeId root="2.16.840.1.113883.1.3"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
                <id root="MDHT" extension="103556391"/>
                <code code="1537766415"/>
                <effectiveTime>
                  <low value="2012"/>
                  <high value="2012"/>
                </effectiveTime>
                <priorityCode codeSystem="2.16.840.1.113883.5.7"
  codeSystemName="ActPriority"/>
                <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
  codeSystemName="SNOMEDCT"/>
              </procedure>
            </entry>
          </section>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
      </structuredBody>
    </component>
 </ClinicalDocument>
```

Transition Of Care Ambulatory Summary

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

MU2 170.314(b)(2) Transition of Care/Referral Summary - For Ambulatory Care
MU2 170.314(b)(7) Export Summary - For Ambulatory Care

1. **SHALL** conform to *Summary Of Care Record* template (templateId:
   `2.16.840.1.113883.10.20.22.1.1`)
2. **SHALL** contain exactly one [1..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`)
3. **SHALL** satisfy: responsibleParty
4. **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 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)

1. **SHALL** conform to *Consol General Header Constraints* template (templateId: 2.16.840.1.113883.10.20.22.1.1)
2. **SHALL** conform to *General Header Constraints* template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** conform to *Summary Of Care Record* template (templateId: 2.16.840.1.113883.10.20.22.1.1)
4. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
5. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361)
6. **SHALL** contain exactly one [1..1] **id** (CONF:5363)
7. **SHALL** contain exactly one [1..1] **code** (CONF:5253)
8. **SHALL** contain exactly one [1..1] **title** (CONF:5254)
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256)

   - *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

10. **SHALL** contain exactly one [1..1] **confidentialityCode**, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* 2.16.840.1.113883.1.11.16926 **STATIC** (CONF:5259)
11. **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *Language* 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372)
12. **MAY** contain zero or one [0..1] **setId** (CONF:5261)
13. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264)
14. Contains exactly one [1..1] **component**, where its type is *Component2*

   a. Contains exactly one [1..1] *Component2*
15. **SHALL** contain at least one [1..*] **author** (CONF:5444)

   a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)
   b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)

      a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5452)
      b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)
      c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:5449)
      d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5428)
      e. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice**

         a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)
         b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)
      f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

         a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)
      g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)
      h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)
   c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

16. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:5441)

    a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9944)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

17. **SHALL** contain exactly one [1..1] **custodian** (iv., CONF:5519)

    a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:5520)

        a. This assignedCustodian **SHALL** contain zero or one [0..1] **representedCustodianOrganization** (CONF:5521)

            a. This representedCustodianOrganization **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5559)

            b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)

            c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)

            d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with data type *TEL* (CONF:5525)

            e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

18. **MAY** contain zero or more [0..*] **informationRecipient** (CONF:5565)

    a. Such informationRecipients **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:5566)

        a. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:5568)

            a. This informationRecipient **SHALL** contain at least one [1..*] **name** (CONF:5470)

        b. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:5577)

            a. This receivedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5578)

19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:5579)

    a. This legalAuthenticator **SHALL** contain exactly one [1..1] **time** (CONF:5580)

    b. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5583, CONF:5584)

    c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC**

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

        f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

20. **MAY** contain zero or more [0..*] **authenticator** (CONF:5607)

   a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)
   b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5610)
   c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

      a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)
      b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826)
      c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)
      d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)
      e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

         a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)
      f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

21. **MAY** contain zero or one [0..1] **informant** (CONF:8001)

   a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

      a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)
      b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)
      c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)
      d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

         a. This assignedPerson **SHALL** contain at least one [1..*] **name**
      e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

   b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

      a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)
      b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

         a. This relatedPerson **SHALL** contain at least one [1..*] **name**
   c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. **MAY** contain zero or more [0..*] **participant** (CONF:10003)

   a. Such participants **MAY** contain zero or one [0..1] **time** (CONF:10004)
   b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.
   c. Such participants Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

23. **MAY** contain zero or more [0..*] **inFulfillmentOf** (CONF:9952)

   a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] **order** (CONF:9953)

      a. This order **SHALL** contain at least one [1..*] **id** (CONF:9954)

24. **MAY** contain zero or more [0..*] **authorization** (CONF:16792)

   a. Such authorizations **SHALL** contain exactly one [1..1] **consent** (CONF:16793)

    a. This consent **MAY** contain zero or one [0..1] **code** (CONF:16795)

    The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

    b. This consent **MAY** contain zero or more [0..*] **id** (CONF:16794)

    c. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797)**/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

        a. This patientRole **SHALL** conform to *Consol Patient Role*

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

            a. This patient **SHALL** conform to *Consol Patient*

            b. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

            c. This patient **SHALL** contain exactly one [1..1] **raceCode**, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

                a. This languageCommunication **SHALL** conform to *Consol Language Communication*

                b. This languageCommunication **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

26. **SHALL** contain at least one [1..*] **documentationOf**

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:14836)

        a. This serviceEvent **SHALL** conform to *Consol Service Event*

        b. This serviceEvent **SHALL** contain at least one [1..*] **performer**

            a. Such performers **SHALL** conform to *Consol Performer1*

            b. Such performers **SHALL** contain exactly one [1..1] **assignedEntity**

                a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

                b. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson**, where its type is CDA Person

                    a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:9956)

        a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

        b. This encompassingEncounter **SHALL** contain at least one [1..*] **encounterParticipant**, where its type is CDA Encounter Participant

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

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

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

    • *MU2 Requirement for 'Smoking status'*

29. **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'*

30. SHALL contain exactly one [1..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'*

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

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

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

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

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

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

34. 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)

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

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

36. SHALL contain 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)

37. 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)

38. 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)

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

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

    • *Captured in Encounters section if using CCD*

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

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

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

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

42. 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)

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

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

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

    a. Contains exactly one [1..1] *Consol Functional Status Section* (templateId: 2.16.840.1.113883.10.20.22.2.14)

45. SHALL contain exactly one [1..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)

46. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

47. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

48. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

49. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

50. id **SHALL** be a globally unique identifier for the document (CONF:9991)

51. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

52. If setId is present versionNumber **SHALL** be present (CONF:6380)

53. If versionNumber is present setId **SHALL** be present (CONF:6387)

54. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

55. **SHALL** have one of CognitiveStatusProblemObservation or CognitiveStatusResultObservation or CognitiveStatusResultOrganizer

56. **SHALL** have one of FunctionalStatusProblemObservation or FunctionalStatusResultObservation or FunctionalStatusResultOrganizer

57. **SHALL** satisfy: responsibleParty

58. **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 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)

Transition Of Care Ambulatory Summary 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="1592600758"/>
  <code code="823761260"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="8b1b310a-c1c6-4144-a431-394d2a47515f"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <component>
    <structuredBody>
      <component>
        <section/>
```

```
        </component>
      </structuredBody>
    </component>
  </ClinicalDocument>
```

Transition Of Care Inpatient Summary

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

MU2 170.314(b)(2) Transition of Care/Referral Summary - For Inpatient Care
MU2 170.314(b)(7) Export Summary - For Inpatient Care

1. **SHALL** conform to *Summary Of Care Record* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
2. **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`)
3. **SHALL** contain exactly one [1..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`)
4. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Hospital Admission Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.43`)
5. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Hospital Discharge Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.24`)
6. Contains zero or one [0..1] **component**

   a. Contains exactly one [1..1] *Consol Hospital Admission Medications Section Entries Optional* (templateId: `2.16.840.1.113883.10.20.22.2.44`)
7. **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)
8. **SHALL** satisfy: hospitalAdmissionDiagnosisEntry
9. **SHALL** satisfy: hospitalDischargeDiagnosesEntry
10. **SHALL** satisfy: postoperativeDiagnosisEntry
11. **SHALL** satisfy: postprocedureDiagnosisEntry

1. **SHALL** conform to *Consol General Header Constraints* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
2. **SHALL** conform to *General Header Constraints* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
3. **SHALL** conform to *Summary Of Care Record* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
4. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)
5. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361)
6. **SHALL** contain exactly one [1..1] **id** (CONF:5363)
7. **SHALL** contain exactly one [1..1] **code** (CONF:5253)
8. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256)

   - *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

10. **SHALL** contain exactly one [1..1] **confidentialityCode**, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* `2.16.840.1.113883.1.11.16926` **STATIC** (CONF:5259)

11. **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *Language* `2.16.840.1.113883.1.11.11526` **DYNAMIC** (CONF:5372)

12. **MAY** contain zero or one [0..1] **setId** (CONF:5261)

13. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264)

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

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

15. **SHALL** contain at least one [1..*] **author** (CONF:5444)

    a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)

    b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)

       a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5452)

       b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16788)

       c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:5449)

       d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5428)

       e. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice**

          a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)

          b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)

       f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

          a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)

       g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

       h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

    c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

16. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:5441)

    a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

       a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

       b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101` NUCC Health Care Provider Taxonomy) (CONF:9944)

       c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

       d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

       e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

          a. This assignedPerson **SHALL** contain at least one [1..*] **name**

       f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

17. **SHALL** contain exactly one [1..1] `custodian` (iv., CONF:5519)

   a. This custodian **SHALL** contain exactly one [1..1] `assignedCustodian` (CONF:5520)

      a. This assignedCustodian **SHALL** contain zero or one [0..1] `representedCustodianOrganization` (CONF:5521)

         a. This representedCustodianOrganization **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5559)
         b. This representedCustodianOrganization **SHALL** contain at least one [1..*] `id` (CONF:5522)
         c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] `name` (CONF:5524)
         d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] `telecom` with data type *TEL* (CONF:5525)
         e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

18. **MAY** contain zero or more [0..*] `informationRecipient` (CONF:5565)

   a. Such informationRecipients **SHALL** contain exactly one [1..1] `intendedRecipient` (CONF:5566)

      a. This intendedRecipient **MAY** contain zero or one [0..1] `informationRecipient` (CONF:5568)

         a. This informationRecipient **SHALL** contain at least one [1..*] `name` (CONF:5470)
      b. This intendedRecipient **MAY** contain zero or one [0..1] `receivedOrganization` (CONF:5577)

         a. This receivedOrganization **SHALL** contain exactly one [1..1] `name` (CONF:5578)

19. **SHOULD** contain zero or one [0..1] `legalAuthenticator` (CONF:5579)

   a. This legalAuthenticator **SHALL** contain exactly one [1..1] `time` (CONF:5580)
   b. This legalAuthenticator **SHALL** contain exactly one [1..1] `signatureCode/@code`="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5583, CONF:5584)
   c. This legalAuthenticator Contains zero or one [0..1] `assignedEntity`

      a. This assignedEntity **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5589)
      b. This assignedEntity **MAY** contain zero or one [0..1] `code` (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC**
      c. This assignedEntity **SHALL** contain at least one [1..*] `id` (CONF:5586)
      d. This assignedEntity **SHALL** contain at least one [1..*] `telecom` with data type *TEL* (CONF:5595)
      e. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson` (CONF:5597)

         a. This assignedPerson **SHALL** contain at least one [1..*] `name` (CONF:5598)
      f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

20. **MAY** contain zero or more [0..*] `authenticator` (CONF:5607)

   a. Such authenticators **SHALL** contain exactly one [1..1] `time` (CONF:5608)
   b. Such authenticators **SHALL** contain exactly one [1..1] `signatureCode/@code`="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5610)
   c. Such authenticators **SHALL** contain exactly one [1..1] `assignedEntity` (CONF:5612)

      a. This assignedEntity **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5616)
      b. This assignedEntity **MAY** contain zero or one [0..1] `code` (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826)
      c. This assignedEntity **SHALL** contain at least one [1..*] `id` (CONF:5613)
      d. This assignedEntity **SHALL** contain at least one [1..*] `telecom` with data type *TEL* (CONF:5622)
      e. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson` (CONF:5624)

      a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

      f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

21. **MAY** contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

      a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

      b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9947)

      c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

      d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

        a. This assignedPerson **SHALL** contain at least one [1..*] **name**

      e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

      a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

      b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

        a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. **MAY** contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] **time** (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/ @typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

23. **MAY** contain zero or more [0..*] **inFulfillmentOf** (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] **order** (CONF:9953)

      a. This order **SHALL** contain at least one [1..*] **id** (CONF:9954)

24. **MAY** contain zero or more [0..*] **authorization** (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] **consent** (CONF:16793)

      a. This consent **MAY** contain zero or one [0..1] **code** (CONF:16795)

      The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

      b. This consent **MAY** contain zero or more [0..*] **id** (CONF:16794)

      c. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797)/**@code**="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

      a. This patientRole **SHALL** conform to *Consol Patient Role*

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

        a. This patient **SHALL** conform to *Consol Patient*

      b. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

      c. This patient **SHALL** contain exactly one [1..1] **raceCode**, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

            a. This languageCommunication **SHALL** conform to *Consol Language Communication*

            b. This languageCommunication **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

26. **SHALL** contain at least one [1..*] **documentationOf**

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:14836)

      a. This serviceEvent **SHALL** conform to *Consol Service Event*

      b. This serviceEvent **SHALL** contain at least one [1..*] **performer**

            a. Such performers **SHALL** conform to *Consol Performer1*

            b. Such performers **SHALL** contain exactly one [1..1] **assignedEntity**

                  a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

                  b. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson**, where its type is CDA Person

                        a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:9956)

      a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

      b. This encompassingEncounter **SHALL** contain at least one [1..*] **encounterParticipant**, where its type is CDA Encounter Participant

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

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

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

    • *MU2 Requirement for 'Smoking status'*

29. **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'*

30. **SHALL** contain exactly one [1..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'*

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

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

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

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

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

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

34. **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`)

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

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

36. **SHALL** contain 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`)

37. 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`)

38. 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`)

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

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

   • *Captured in Encounters section if using CCD*

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

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

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

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

42. 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`)

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

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

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

   a. Contains exactly one [1..1] *Consol Functional Status Section* (templateId: `2.16.840.1.113883.10.20.22.2.14`)

45. **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`)

46. **SHALL** contain exactly one [1..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`)

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

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

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

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

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

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

50. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

51. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

52. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

53. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

54. id **SHALL** be a globally unique identifier for the document (CONF:9991)

55. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

56. If setId is present versionNumber **SHALL** be present (CONF:6380)

57. If versionNumber is present setId **SHALL** be present (CONF:6387)

58. **SHALL** have one of Plan of Care (2.16.840.1.113883.10.20.22.2.10) or Assessment and Plan (2.16.840.1.113883.10.20.22.2.9) or Interventions (2.16.840.1.113883.10.20.21.2.3)

59. **SHALL** have one of CognitiveStatusProblemObservation or CognitiveStatusResultObservation or CognitiveStatusResultOrganizer

60. **SHALL** have one of FunctionalStatusProblemObservation or FunctionalStatusResultObservation or FunctionalStatusResultOrganizer

61. **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)

62. **SHALL** satisfy: hospitalAdmissionDiagnosisEntry

63. **SHALL** satisfy: hospitalDischargeDiagnosesEntry

64. **SHALL** satisfy: postoperativeDiagnosisEntry

65. **SHALL** satisfy: postprocedureDiagnosisEntry

Transition Of Care Inpatient Summary 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="18545039"/>
  <code code="1046230770"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="efba6e6c-9242-4e70-9f4f-b787c57476b3"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
```

```
    </author>
    <custodian/>
    <component>
      <structuredBody>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
        <component>
          <section/>
        </component>
      </structuredBody>
    </component>
  </ClinicalDocument>
```

VDT Ambulatory Summary

VDT Ambulatory Summary example

VDT Inpatient Summary

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

MU2 170.314 (e)(1) Inpatient Summary

1. **SHALL** conform to *View Download Transmit Summary* template (templateId: `2.16.840.1.113883.10.20.22.1.1`)
2. **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`)
3. **SHALL** contain exactly one [1..1] **component**

   a. Contains exactly one [1..1] *Consol Hospital Admission Diagnosis Section* (templateId: `2.16.840.1.113883.10.20.22.2.43`)
4. 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`)
5. 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`)
6. 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`)
7. **SHALL** contain exactly one [1..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)

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

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

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

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

10. **SHALL** satisfy: Admission and Discharge Dates

11. **SHALL** satisfy: Admission and Discharge Location

12. **SHALL** have one of Reason for Visit (2.16.840.1.113883.10.20.22.2.12) or Chief Complaint (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or Chief Complaint and Reason for Visit (2.16.840.1.113883.10.20.22.2.13)

13. **SHALL** satisfy: hospitalAdmissionDiagnosisEntry

14. **SHALL** satisfy: PreoperativeDiagnosisEntry

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

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

3. **SHALL** conform to *View Download Transmit Summary* template (templateId: 2.16.840.1.113883.10.20.22.1.1)

4. **SHALL** contain exactly one [1..1] **realmCode/@code**="US" (CONF:16791)

5. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361)

6. **SHALL** contain exactly one [1..1] **id** (CONF:5363)

7. **SHALL** contain exactly one [1..1] **code** (CONF:5253)

8. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256)

    • *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

10. **SHALL** contain exactly one [1..1] **confidentialityCode**, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* 2.16.840.1.113883.1.11.16926 **STATIC** (CONF:5259)

11. **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *Language* 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5372)

12. **MAY** contain zero or one [0..1] **setId** (CONF:5261)

13. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264)

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

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

15. **SHALL** contain at least one [1..*] **author** (CONF:5444)

    a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)

    b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)

        a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5452)

        b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)

        c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:5449)

        d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5428)

     e. This assignedAuthor **SHOULD** contain zero or one [0..1] `assignedAuthoringDevice`

        a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] `manufacturerModelName` (CONF:16784)

        b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] `softwareName` (CONF:16785)

     f. This assignedAuthor **SHOULD** contain zero or one [0..1] `assignedPerson`

        a. This assignedPerson **SHALL** contain at least one [1..*] `name` (CONF:16789)

     g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

     h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

   c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

16. **MAY** contain zero or one [0..1] `dataEnterer` (CONF:5441)

   a. This dataEnterer **SHALL** contain exactly one [1..1] `assignedEntity` (CONF:5442)

     a. This assignedEntity **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5460)

     b. This assignedEntity **MAY** contain zero or one [0..1] `code`, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9944)

     c. This assignedEntity **SHALL** contain at least one [1..*] `id` (CONF:5443)

     d. This assignedEntity **SHALL** contain at least one [1..*] `telecom` with data type *TEL* (CONF:5466)

     e. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson` (CONF:5469)

        a. This assignedPerson **SHALL** contain at least one [1..*] `name`

     f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

17. **SHALL** contain exactly one [1..1] `custodian` (iv., CONF:5519)

   a. This custodian **SHALL** contain exactly one [1..1] `assignedCustodian` (CONF:5520)

     a. This assignedCustodian **SHALL** contain zero or one [0..1] `representedCustodianOrganization` (CONF:5521)

        a. This representedCustodianOrganization **SHALL** contain at least one [1..*] `addr` with data type *US Realm Address* (CONF:5559)

        b. This representedCustodianOrganization **SHALL** contain at least one [1..*] `id` (CONF:5522)

        c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] `name` (CONF:5524)

        d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] `telecom` with data type *TEL* (CONF:5525)

        e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

18. **MAY** contain zero or more [0..*] `informationRecipient` (CONF:5565)

   a. Such informationRecipients **SHALL** contain exactly one [1..1] `intendedRecipient` (CONF:5566)

     a. This intendedRecipient **MAY** contain zero or one [0..1] `informationRecipient` (CONF:5568)

        a. This informationRecipient **SHALL** contain at least one [1..*] `name` (CONF:5470)

     b. This intendedRecipient **MAY** contain zero or one [0..1] `receivedOrganization` (CONF:5577)

        a. This receivedOrganization **SHALL** contain exactly one [1..1] `name` (CONF:5578)

19. **SHOULD** contain zero or one [0..1] `legalAuthenticator` (CONF:5579)

   a. This legalAuthenticator **SHALL** contain exactly one [1..1] `time` (CONF:5580)

   b. This legalAuthenticator **SHALL** contain exactly one [1..1] `signatureCode/@code`="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5583, CONF:5584)

    c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC**

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

        f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

20. **MAY** contain zero or more [0..*] **authenticator** (CONF:5607)

    a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)

    b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5610)

    c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC – HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16826)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

        f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

21. **MAY** contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9947)

        c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

        d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

        a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

            a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

22. **MAY** contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] `time` (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

23. **MAY** contain zero or more [0..*] `inFulfillmentOf` (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] `order` (CONF:9953)

        a. This order **SHALL** contain at least one [1..*] `id` (CONF:9954)

24. **MAY** contain zero or more [0..*] `authorization` (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] `consent` (CONF:16793)

        a. This consent **MAY** contain zero or one [0..1] `code` (CONF:16795)

        The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

        b. This consent **MAY** contain zero or more [0..*] `id` (CONF:16794)

        c. This consent **SHALL** contain exactly one [1..1] `statusCode` (CONF:16797)/**@code**="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

        a. This patientRole **SHALL** conform to *Consol Patient Role*

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

            a. This patient **SHALL** conform to *Consol Patient*

            b. This patient **SHALL** contain exactly one [1..1] `ethnicGroupCode`, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

            c. This patient **SHALL** contain exactly one [1..1] `raceCode`, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

                a. This languageCommunication **SHALL** conform to *Consol Language Communication*

                b. This languageCommunication **SHALL** contain exactly one [1..1] `languageCode`, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

26. **SHALL** contain at least one [1..*] `documentationOf`

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] `serviceEvent` (CONF:14836)

        a. This serviceEvent **SHALL** conform to *Consol Service Event*

        b. This serviceEvent **SHALL** contain at least one [1..*] `performer`

            a. Such performers **SHALL** conform to *Consol Performer1*

            b. Such performers **SHALL** contain exactly one [1..1] `assignedEntity`

                a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

                b. This assignedEntity **SHALL** contain exactly one [1..1] `assignedPerson`, where its type is CDA Person

                    a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] `encompassingEncounter` (CONF:9956)

    a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

    b. This encompassingEncounter **SHALL** contain at least one [1..*] `encounterParticipant`, where its type is CDA Encounter Participant

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

28. **SHALL** contain exactly one [1..1] `component`

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

29. **SHALL** contain exactly one [1..1] `component`

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

30. **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`)

31. **SHALL** contain exactly one [1..1] `component`

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

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

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

33. **SHALL** contain exactly one [1..1] `component`

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

34. 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`)

35. **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`)

36. **SHALL** contain exactly one [1..1] `component`

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

37. **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`)

38. **SHALL** contain exactly one [1..1] `component`

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

39. 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`)

40. 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`)

41. 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`)

42. **SHALL** contain exactly one [1..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`)

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

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

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

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

45. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

46. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

47. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

48. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

49. id **SHALL** be a globally unique identifier for the document (CONF:9991)

50. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

51. If setId is present versionNumber **SHALL** be present (CONF:6380)

52. If versionNumber is present setId **SHALL** be present (CONF:6387)

53. **SHALL** have one of Assessment and Plan section or Plan of Care section

54. **SHALL** satisfy: Admission and Discharge Dates

55. **SHALL** satisfy: Admission and Discharge Location

56. **SHALL** have one of Reason for Visit (2.16.840.1.113883.10.20.22.2.12) or Chief Complaint (1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1) or Chief Complaint and Reason for Visit (2.16.840.1.113883.10.20.22.2.13)

57. **SHALL** satisfy: hospitalAdmissionDiagnosisEntry

58. **SHALL** satisfy: PreoperativeDiagnosisEntry

VDT Inpatient Summary 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="32251275"/>
  <code code="641679350"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="3ee28a30-dc57-4e84-a8d2-8213ef24b45d"/>
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
```

```
 <component>
   <structuredBody>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
   </structuredBody>
 </component>
</ClinicalDocument>
```

View Download Transmit Summary

[ClinicalDocument: templateId `2.16.840.1.113883.10.20.22.1.1`]

Known Subclasses: *VDT Inpatient Summary*, *VDT Ambulatory Summary*

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**

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

    a. Contains exactly one [1..1] *Consol Medications Section* (templateId: `2.16.840.1.113883.10.20.22.2.1.1`)
4. **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`)
5. **SHALL** contain exactly one [1..1] **component**

    a. Contains exactly one [1..1] *Procedures Section* (templateId: `2.16.840.1.113883.10.20.22.2.7.1`)
6. **SHALL** contain exactly one [1..1] **component**

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

    a. Contains exactly one [1..1] *Results Section* (templateId: `2.16.840.1.113883.10.20.22.2.3.1`)
8. 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`)

9. **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`)

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

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

11. **SHALL** have one of Assessment and Plan section or Plan of Care section

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

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

3. **SHALL** contain exactly one [1..1] **realmCode/@code**=`"US"` (CONF:16791)

4. **SHALL** contain exactly one [1..1] **typeId** (CONF:5361)

5. **SHALL** contain exactly one [1..1] **id** (CONF:5363)

6. **SHALL** contain exactly one [1..1] **code** (CONF:5253)

7. **SHALL** contain exactly one [1..1] **title** (CONF:5254)

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5256)

    • *Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. The time when the transform occurred is not currently represented in CDA (CONF:9995)*

9. **SHALL** contain exactly one [1..1] **confidentialityCode**, where the @code **SHALL** be selected from ValueSet *HL7 BasicConfidentialityKind* `2.16.840.1.113883.1.11.16926` **STATIC** (CONF:5259)

10. **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *Language* `2.16.840.1.113883.1.11.11526` **DYNAMIC** (CONF:5372)

11. **MAY** contain zero or one [0..1] **setId** (CONF:5261)

12. **MAY** contain zero or one [0..1] **versionNumber** (CONF:5264)

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

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

14. **SHALL** contain at least one [1..*] **author** (CONF:5444)

    a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)

    b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)

        a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5452)

        b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC** (CONF:16788)

        c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:5449)

        d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5428)

        e. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice**

            a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)

            b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)

        f. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson**

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)

        g. This assignedAuthor This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)

     h. This assignedAuthor The id **SHALL** contain exactly one root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16786)

  c. Such authors This time **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:5446)

15. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:5441)

  a. This dataEnterer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5442)

    a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5460)

    b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: `2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy`) (CONF:9944)

    c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5443)

    d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5466)

    e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5469)

      a. This assignedPerson **SHALL** contain at least one [1..*] **name**

    f. This assignedEntity id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16821)

16. **SHALL** contain exactly one [1..1] **custodian** (iv., CONF:5519)

  a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:5520)

    a. This assignedCustodian **SHALL** contain zero or one [0..1] **representedCustodianOrganization** (CONF:5521)

      a. This representedCustodianOrganization **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5559)

      b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)

      c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)

      d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with data type *TEL* (CONF:5525)

      e. This representedCustodianOrganization The id **SHOULD** include zero or one [0..1] @root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

17. **MAY** contain zero or more [0..*] **informationRecipient** (CONF:5565)

  a. Such informationRecipients **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:5566)

    a. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:5568)

      a. This informationRecipient **SHALL** contain at least one [1..*] **name** (CONF:5470)

    b. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:5577)

      a. This receivedOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5578)

18. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:5579)

  a. This legalAuthenticator **SHALL** contain exactly one [1..1] **time** (CONF:5580)

  b. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: `2.16.840.1.113883.5.89 Participationsignature`) (CONF:5583, CONF:5584)

  c. This legalAuthenticator Contains zero or one [0..1] **assignedEntity**

    a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5589)

    b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:17000), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* `2.16.840.1.114222.4.11.1066` **DYNAMIC**

    c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5586)

    d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5595)

    e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5597)

        a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5598)

    f. This assignedEntity The id **MAY** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:16823)

19. MAY contain zero or more [0..*] **authenticator** (CONF:5607)

    a. Such authenticators **SHALL** contain exactly one [1..1] **time** (CONF:5608)

    b. Such authenticators **SHALL** contain exactly one [1..1] **signatureCode/@code**="S" (CodeSystem: 2.16.840.1.113883.5.89 Participationsignature) (CONF:5610)

    c. Such authenticators **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:5612)

        a. This assignedEntity **SHALL** contain at least one [1..*] **addr** with data type *US Realm Address* (CONF:5616)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:16825), where the @code **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16826)

        c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:5613)

        d. This assignedEntity **SHALL** contain at least one [1..*] **telecom** with data type *TEL* (CONF:5622)

        e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:5624)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:5625)

        f. This assignedEntity The id **SHOULD** include zero or one [0..1] root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

20. MAY contain zero or one [0..1] **informant** (CONF:8001)

    a. This informant **MAY** contain zero or one [0..1] **assignedEntity**

        a. This assignedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This assignedEntity **MAY** contain zero or one [0..1] **code**, where the @code **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.101 NUCC Health Care Provider Taxonomy) (CONF:9947)

        c. This assignedEntity **SHOULD** contain zero or more [0..*] **id** (a., CONF:9945)

        d. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:8221)

            a. This assignedPerson **SHALL** contain at least one [1..*] **name**

        e. This assignedEntity The id **SHOULD** include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996)

    b. This informant **MAY** contain zero or one [0..1] **relatedEntity**

        a. This relatedEntity **SHOULD** contain zero or more [0..*] **addr** with data type *US Realm Address* (CONF:8220)

        b. This relatedEntity **SHALL** contain zero or one [0..1] **relatedPerson** (CONF:8221)

            a. This relatedPerson **SHALL** contain at least one [1..*] **name**

    c. This informant **SHALL** satisfy: contain exactly one [1..1] assignedEntity OR exactly one [1..1] relatedEntity (CONF:8002)

21. MAY contain zero or more [0..*] **participant** (CONF:10003)

    a. Such participants **MAY** contain zero or one [0..1] **time** (CONF:10004)

    b. Such participants Such participants, if present, **SHALL** have an associatedPerson or scopingOrganization element under participant/associatedEntity.

    c. Such participants Unless otherwise specified by the document specific header constraints, when participant/@typeCode is IND, associatedEntity/@classCode **SHALL** be selected from ValueSet INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 STATIC 2011-09-30.

22. MAY contain zero or more [0..*] **inFulfillmentOf** (CONF:9952)

    a. Such inFulfillmentOfs **SHALL** contain exactly one [1..1] **order** (CONF:9953)

     a. This order **SHALL** contain at least one [1..*] **id** (CONF:9954)

23. **MAY** contain zero or more [0..*] **authorization** (CONF:16792)

    a. Such authorizations **SHALL** contain exactly one [1..1] **consent** (CONF:16793)

       a. This consent **MAY** contain zero or one [0..1] **code** (CONF:16795)

       The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code (CONF:16796).

       b. This consent **MAY** contain zero or more [0..*] **id** (CONF:16794)

       c. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:16797)**/@code**="completed" *Completed* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:16798)

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

    a. Such recordTargets **SHALL** conform to *Consol Record Target*

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

       a. This patientRole **SHALL** conform to *Consol Patient Role*

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

          a. This patient **SHALL** conform to *Consol Patient*

          b. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, where the @code **SHALL** be selected from ValueSet *Ethnicity Category ValueSet* **STATIC**

          c. This patient **SHALL** contain exactly one [1..1] **raceCode**, where the @code **SHALL** be selected from ValueSet *Race Category ValueSet* **STATIC**

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

             a. This languageCommunication **SHALL** conform to *Consol Language Communication*

             b. This languageCommunication **SHALL** contain exactly one [1..1] **languageCode**, where the @code **SHALL** be selected from ValueSet *LanguageCode* **STATIC** (CONF:5407)

25. **SHALL** contain at least one [1..*] **documentationOf**

    a. Such documentationOfs **SHALL** conform to *Consol Documentation Of*

    b. Such documentationOfs **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:14836)

       a. This serviceEvent **SHALL** conform to *Consol Service Event*

       b. This serviceEvent **SHALL** contain at least one [1..*] **performer**

          a. Such performers **SHALL** conform to *Consol Performer1*

          b. Such performers **SHALL** contain exactly one [1..1] **assignedEntity**

             a. This assignedEntity **SHALL** conform to *Consol Assigned Entity*

             b. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson**, where its type is CDA Person

                a. Contains exactly one [1..1] CDA Person

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

    a. This componentOf **SHALL** conform to *Consol Component Of*

    b. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:9956)

       a. This encompassingEncounter **SHALL** conform to *Consol Encompassing Encounter*

       b. This encompassingEncounter **SHALL** contain at least one [1..*] **encounterParticipant**, where its type is CDA Encounter Participant

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

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

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

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

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

29. **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)

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

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

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

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

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

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

33. 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)

34. **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)

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

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

36. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

37. **SHALL** satisfy: The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement. This data type uses the same rules as US Realm Date and Time (DTM.US.FIELDED), but is used with the effectiveTime element.

38. typeId **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:5250)

39. typeId **SHALL** contain exactly one [1..1] @extension="POCD_HD000040" (CONF:5251)

40. id **SHALL** be a globally unique identifier for the document (CONF:9991)

41. code **SHALL** specify the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). (CONF:9992)

42. If setId is present versionNumber **SHALL** be present (CONF:6380)

43. If versionNumber is present setId **SHALL** be present (CONF:6387)

44. **SHALL** have one of Assessment and Plan section or Plan of Care section

View Download Transmit Summary 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">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="MDHT" extension="1861400259"/>
  <code code="249357559"/>
  <title>TEXT FOR TITLE</title>
  <effectiveTime/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25"
 codeSystemName="ConfidentialityCode"/>
  <setId root="MDHT" extension="a576d162-3eaf-4ed8-814b-c930155b0952"/>
```

```
  <versionNumber value="1"/>
  <recordTarget>
    <typeId root="2.16.840.1.113883.1.3"/>
    <patientRole/>
  </recordTarget>
  <author>
    <typeId root="2.16.840.1.113883.1.3"/>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
  <component>
    <structuredBody>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
          <id root="MDHT" extension="641951450"/>
          <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of procedures"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <procedure classCode="PROC">
              <typeId root="2.16.840.1.113883.1.3"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
              <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
              <id root="MDHT" extension="471075322"/>
              <code code="517246542"/>
              <effectiveTime>
                <low value="2012"/>
                <high value="2012"/>
              </effectiveTime>
              <priorityCode codeSystem="2.16.840.1.113883.5.7"
codeSystemName="ActPriority"/>
              <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT"/>
            </procedure>
          </entry>
        </section>
      </component>
      <component>
        <section/>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
          <id root="MDHT" extension="1994695830"/>
          <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
laboratory data"/>
```

```
            <title>TEXT FOR TITLE</title>
            <entry>
              <organizer moodCode="EVN">
                <typeId root="2.16.840.1.113883.1.3"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
                <id root="MDHT" extension="1449792507"/>
                <code code="2134893188"/>
                <statusCode code="completed"/>
                <effectiveTime>
                  <low value="2012"/>
                  <high value="2012"/>
                </effectiveTime>
                <component>
                  <observation classCode="OBS" moodCode="EVN">
                    <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
                    <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
                  </observation>
                </component>
              </organizer>
            </entry>
          </section>
      </component>
      <component>
        <section>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
          <id root="MDHT" extension="163424050"/>
          <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
          <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>
          <typeId root="2.16.840.1.113883.1.3"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
          <id root="MDHT" extension="1048946570"/>
          <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Treatment plan"/>
          <title>TEXT FOR TITLE</title>
          <entry>
            <act/>
          </entry>
          <entry>
            <encounter/>
          </entry>
          <entry>
            <observation/>
          </entry>
```

```
            </section>
        </component>
        <component>
          <section>
            <typeId root="2.16.840.1.113883.1.3"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
            <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
            <id root="MDHT" extension="1431573632"/>
            <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Social history"/>
            <title>TEXT FOR TITLE</title>
            <entry>
              <observation classCode="OBS" moodCode="EVN">
                <typeId root="2.16.840.1.113883.1.3"/>
                <templateId root="2.16.840.1.113883.10.22.4.78"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
                <id root="MDHT" extension="342935104"/>
                <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
 codeSystemName="HL7ActCode" displayName="Assertion"/>
                <statusCode code="completed"/>
                <effectiveTime>
                  <low value="2012"/>
                  <high value="2012"/>
                </effectiveTime>
              </observation>
            </entry>
          </section>
        </component>
      </structuredBody>
    </component>
</ClinicalDocument>
```

Chapter

3

SECTION TEMPLATES

Topics:

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: `2.16.840.1.113883.10.20.22.4.42`)
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** (CONF:15353)**/@code**=`"51847-2"` *ASSESSMENT AND PLAN* (CodeSystem: `2.16.840.1.113883.6.1 LOINC`) (CONF:15354)
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: `2.16.840.1.113883.10.20.22.4.42`)
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
<?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">
  <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.9"/>
  <id root="MDHT" extension="2028020212"/>
```

```
  <code code="51847-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="ASSESSMENT AND PLAN"/>
  <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** (CONF:14757)**/@code**=`"51848-0"` *Assessments* (CodeSystem:
   `2.16.840.1.113883.6.1` LOINC) (CONF:14758)
3. **SHALL** contain exactly one [1..1] **title** (CONF:16774)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7713)
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 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">
  <templateId root="2.16.840.1.113883.10.20.22.2.8"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.8"/>
  <id root="MDHT" extension="675402504"/>
  <code code="51848-0" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Assessments"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <observation/>
  </entry>
</section>
```

Encounters Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.22.1`]

1. **SHALL** conform to *Consol Encounters Section* template (templateId: `2.16.840.1.113883.10.20.22.2.22.1`)
2. **SHALL** contain at least one [1..*] **entry** (CONF:8709, CONF:8803)

    a. Contains exactly one [1..1] *Encounter Activities* (templateId: `2.16.840.1.113883.10.20.22.4.49`)

1. **SHALL** conform to *Consol Encounters Section Entries Optional* template (templateId: `2.16.840.1.113883.10.20.22.2.22`)
2. **SHALL** conform to *Consol Encounters Section* template (templateId: `2.16.840.1.113883.10.20.22.2.22.1`)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15466)**/@code**=`"46240-8"` *Encounters* (CodeSystem: `2.16.840.1.113883.6.1` LOINC) (CONF:15467)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8707)
5. **SHALL** contain exactly one [1..1] **text** (CONF:8708)
6. **SHALL** contain at least one [1..*] **entry** (CONF:8709, CONF:8803)

    a. Contains exactly one [1..1] *Encounter Activities* (templateId: `2.16.840.1.113883.10.20.22.4.49`)

Encounters 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">
  <templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.22"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.22.1"/>
  <id root="MDHT" extension="1106907984"/>
  <code code="46240-8" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Encounters"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <encounter classCode="ENC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
      <id root="MDHT" extension="1511123668"/>
      <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2012"/>
        <high value="2012"/>
      </effectiveTime>
    </encounter>
  </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 more [0..*] **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 more [0..*] **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. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.22.4.44`)
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** (CONF:14749)**/@code**="`18776-5`" *Treatment plan* (CodeSystem: `2.16.840.1.113883.6.1 LOINC`) (CONF:14750)
3. **SHALL** contain exactly one [1..1] **title** (CONF:16986)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7725)
5. **MAY** contain zero or more [0..*] **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`)
6. **MAY** contain zero or more [0..*] **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`)
7. **MAY** contain zero or more [0..*] **entry** (CONF:8808, CONF:8807)

   a. Contains exactly one [1..1] *Plan Of Care Activity Observation* (templateId: `2.16.840.1.113883.10.20.22.4.44`)
8. **MAY** contain zero or more [0..*] **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`)
9. **MAY** contain zero or more [0..*] **entry** (CONF:8811, CONF:8812)

   a. Contains exactly one [1..1] *Plan Of Care Activity Substance Administration* (templateId: `2.16.840.1.113883.10.20.22.4.42`)
10. **MAY** contain zero or more [0..*] **entry** (CONF:8813, CONF:14756)

   a. Contains exactly one [1..1] *Plan Of Care Activity Supply* (templateId: `2.16.840.1.113883.10.20.22.4.43`)
11. **MAY** contain zero or more [0..*] **entry** (CONF:14695, CONF:16751)

   a. Contains exactly one [1..1] *Instructions* (templateId: `2.16.840.1.113883.10.20.22.4.20`)
12. Contains zero or more [0..*] **entry**

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

   a. Contains exactly one [1..1] *Consol Plan Of Care Activity Encounter* (templateId: `2.16.840.1.113883.10.20.22.4.40`)
14. **SHALL** contain at least one [1..*] **entry**

a. Contains exactly one [1..1] *Consol Plan Of Care Activity Observation* (templateId: 2.16.840.1.113883.10.20.22.4.44)

15. **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">
  <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.10"/>
  <id root="MDHT" extension="672397649"/>
  <code code="18776-5" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Treatment plan"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <act/>
  </entry>
  <entry>
    <encounter/>
  </entry>
  <entry>
    <observation/>
  </entry>
</section>
```

Procedures Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.7.1]

1. **SHALL** conform to *Consol Procedures Section* template (templateId: 2.16.840.1.113883.10.20.22.2.7.1)
2. **MAY** contain zero or more [0..*] **entry** (CONF:7895, CONF:7896)

   a. Contains exactly one [1..1] *Procedure Activity Procedure* (templateId: 2.16.840.1.113883.10.20.22.4.14)

1. **SHALL** conform to *Consol Procedures Section Entries Optional* template (templateId: 2.16.840.1.113883.10.20.22.2.7)
2. **SHALL** conform to *Consol Procedures Section* template (templateId: 2.16.840.1.113883.10.20.22.2.7.1)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15425)**/@code**="47519-4" *History of procedures* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:15426)
4. **SHALL** contain exactly one [1..1] **title** (CONF:7893)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7894)
6. **MAY** contain zero or more [0..*] **entry** (CONF:6278, CONF:15510)

   a. Contains exactly one [1..1] *Procedure Activity Observation* (templateId: 2.16.840.1.113883.10.20.22.4.13)
7. **MAY** contain zero or more [0..*] **entry** (CONF:8533, CONF:15511)

   a. Contains exactly one [1..1] *Procedure Activity Act* (templateId: 2.16.840.1.113883.10.20.22.4.12)
8. **MAY** contain zero or more [0..*] **entry** (CONF:8017, CONF:8018)

    a. Contains exactly one [1..1] *Procedure Activity Observation* (templateId: 2.16.840.1.113883.10.20.22.4.13)

9. **MAY** contain zero or more [0..*] **entry** (CONF:8019, CONF:8020)

    a. Contains exactly one [1..1] *Procedure Activity Act* (templateId: 2.16.840.1.113883.10.20.22.4.12)

10. **MAY** contain zero or more [0..*] **entry** (CONF:7895, CONF:7896)

    a. Contains exactly one [1..1] *Procedure Activity Procedure* (templateId: 2.16.840.1.113883.10.20.22.4.14)

11. There **SHALL** be at least one procedure, observation or act entry conformant to Procedure Activity Procedure template, Procedure Activity Observation template or Procedure Activity Act template in the Procedure Section. (CONF:8021)

Procedures 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">
  <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
  <id root="MDHT" extension="2080635332"/>
  <code code="47519-4" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="History of procedures"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <procedure classCode="PROC">
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <id root="MDHT" extension="1763646566"/>
      <code code="1321713053"/>
      <text>Text Value</text>
      <effectiveTime>
        <low value="2012"/>
        <high value="2012"/>
      </effectiveTime>
      <priorityCode codeSystem="2.16.840.1.113883.5.7"
 codeSystemName="ActPriority"/>
      <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
 codeSystemName="SNOMEDCT"/>
    </procedure>
  </entry>
</section>
```

Results Section

[Section: templateId 2.16.840.1.113883.10.20.22.2.3.1]

1. **SHALL** conform to *Consol Results Section* template (templateId: 2.16.840.1.113883.10.20.22.2.3.1)

2. **SHALL** contain at least one [1..*] **entry** (CONF:7112, CONF:7113)

    a. Contains exactly one [1..1] *Result Organizer* (templateId: 2.16.840.1.113883.10.20.22.4.1)

1. **SHALL** conform to *Consol Results Section Entries Optional* template (templateId: 2.16.840.1.113883.10.20.22.2.3)

2. **SHALL** conform to *Consol Results Section* template (templateId:
   `2.16.840.1.113883.10.20.22.2.3.1`)
3. **SHALL** contain exactly one [1..1] **code** (CONF:15433)**/@code**=`"30954-2"` *Relevant diagnostic tests and/or laboratory data* (CodeSystem: `2.16.840.1.113883.6.1 LOINC`) (CONF:15434)
4. **SHALL** contain exactly one [1..1] **title** (CONF:8892)
5. **SHALL** contain exactly one [1..1] **text** (CONF:7111)
6. **SHALL** contain at least one [1..*] **entry** (CONF:7112, CONF:7113)

   a. Contains exactly one [1..1] *Result Organizer* (templateId: `2.16.840.1.113883.10.20.22.4.1`)

Results 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">
  <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.3"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.3.1"/>
  <id root="MDHT" extension="2134747120"/>
  <code code="30954-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Relevant diagnostic tests and/or
 laboratory data"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <organizer moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <id root="MDHT" extension="1099634379"/>
      <code code="2009959523"/>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2012"/>
        <high value="2012"/>
      </effectiveTime>
      <component>
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
          <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
          <id root="MDHT" extension="130637717"/>
          <code code="2025716044"/>
          <text>Text Value</text>
          <effectiveTime>
            <low value="2012"/>
            <high value="2012"/>
          </effectiveTime>
        </observation>
      </component>
    </organizer>
  </entry>
</section>
```

Social History Section

[Section: templateId `2.16.840.1.113883.10.20.22.2.17`]

INLINE

1. **SHALL** conform to *Consol Social History Section* template (templateId: 2.16.840.1.113883.10.20.22.2.17)
2. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Smoking Status Observation* (templateId: 2.16.840.1.113883.10.22.4.78)

1. **SHALL** conform to *Consol Social History Section* template (templateId: 2.16.840.1.113883.10.20.22.2.17)
2. **SHALL** contain exactly one [1..1] **code** (CONF:14819)**/@code**="29762-2" *Social history* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:14820)
3. **SHALL** contain exactly one [1..1] **title** (CONF:7938)
4. **SHALL** contain exactly one [1..1] **text** (CONF:7939)
5. **MAY** contain zero or more [0..*] **entry** (CONF:7953, CONF:7954)

   a. Contains exactly one [1..1] *Social History Observation* (templateId: 2.16.840.1.113883.10.20.22.4.38)
6. **MAY** contain zero or more [0..*] **entry** (CONF:9132, CONF:9133)

   a. Contains exactly one [1..1] *Pregnancy Observation* (templateId: 2.16.840.1.113883.10.20.15.3.8)
7. **SHOULD** contain zero or more [0..*] **entry** (CONF:14823, CONF:14824)

   a. Contains exactly one [1..1] *Smoking Status Observation* (templateId: 2.16.840.1.113883.10.20.22.4.78)
8. **SHALL** contain at least one [1..*] **entry**

   a. Contains exactly one [1..1] *Smoking Status Observation* (templateId: 2.16.840.1.113883.10.22.4.78)

Social History 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">
  <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
  <id root="MDHT" extension="1908002886"/>
  <code code="29762-2" codeSystem="2.16.840.1.113883.6.1"
 codeSystemName="LOINC" displayName="Social history"/>
  <title>TEXT FOR TITLE</title>
  <text/>
  <entry>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.22.4.78"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
      <id root="MDHT" extension="1764850580"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
 codeSystemName="HL7ActCode" displayName="Assertion"/>
      <text>Text Value</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2012"/>
        <high value="2012"/>
      </effectiveTime>
    </observation>
  </entry>
</section>
```

Chapter

4

CLINICAL STATEMENT TEMPLATES

Topics:

- *Encounter Activities*
- *Procedure Activity Procedure*
- *Result Observation*
- *Result Organizer*
- *Smoking Status Observation*

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.

Encounter Activities

[Encounter: templateId `2.16.840.1.113883.10.20.22.4.49`]

1. **SHALL** conform to *Consol Encounter Activities* template (templateId: `2.16.840.1.113883.10.20.22.4.49`)
2. Contains zero or one [0..1] **code**
3. The value for 'code' for encounter activities **SHOULD** be selected from ICD-10(codeSystem 2.16.840.1.113883.6.3) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96)

1. **SHALL** conform to *Consol Encounter Activities* template (templateId: `2.16.840.1.113883.10.20.22.4.49`)
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: `2.16.840.1.113883.5.6` HL7ActClass) (CONF:8710)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: `2.16.840.1.113883.5.1001` HL7ActMood) (CONF:8711)
4. **SHALL** contain at least one [1..*] **id** (CONF:8713)
5. Contains zero or one [0..1] **code**
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:8715)
7. **MAY** contain zero or more [0..*] **participant** (CONF:8738, CONF:14903)

   a. Contains exactly one [1..1] *Service Delivery Location* (templateId: `2.16.840.1.113883.10.20.22.4.32`)
8. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:8722, CONF:8723, CONF:14899)

   a. Contains **@typeCode="**RSON" *RSON*
   b. Contains exactly one [1..1] *Indication* (templateId: `2.16.840.1.113883.10.20.22.4.19`)
9. **MAY** contain zero or more [0..*] **performer** (CONF:8725)

   a. Such performers **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:8726)

      a. This assignedEntity **MAY** contain zero or one [0..1] **code** (CONF:8727)
10. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:15492, CONF:15973)

    a. Contains exactly one [1..1] *Encounter Diagnosis* (templateId: `2.16.840.1.113883.10.20.22.4.80`)
11. code, if present, **SHOULD** contain zero or one [0..1] originalText (CONF:8719)
12. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15970)
13. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15971)
14. reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:15972)
15. **MAY** contain zero or one [0..1] sdtc:dischargeDispositionCode, which **SHALL** be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status DYNAMIC or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition. The prefix sdtc: **SHALL** be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the dischargeDispositionCode element (CONF:9929) (CONF:9929)
16. EncounterActivities with target entry Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) STATIC (CONF:8740)
17. The value for 'code' for encounter activities **SHOULD** be selected from ICD-10(codeSystem 2.16.840.1.113883.6.3) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96)

Encounter Activities example

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<encounter xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
 classCode="ENC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
  <id root="MDHT" extension="2107440793"/>
  <code codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT-4"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
</encounter>
```

Procedure Activity Procedure

[Procedure: templateId `2.16.840.1.113883.10.20.22.4.14`]

1. **SHALL** conform to *Consol Procedure Activity Procedure* template (templateId: `2.16.840.1.113883.10.20.22.4.14`)
2. **SHALL** contain exactly one [1..1] **code** (CONF:7656)
3. 'code' **SHOULD** be selected from SNOMED CT (codeSystem 2.16.840.1.113883.6.96) or CPT-4 (CodeSystem 2.16.840.1.113883.6.12)

1. **SHALL** conform to *Consol Procedure Activity Procedure* template (templateId: `2.16.840.1.113883.10.20.22.4.14`)
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: `2.16.840.1.113883.5.6` HL7ActClass) (CONF:7652)
3. **SHALL** contain exactly one [1..1] **@moodCode**, where the @code **SHALL** be selected from ValueSet *MoodCodeEvnInt* `2.16.840.1.113883.11.20.9.18` **STATIC** 2011-04-03 (CONF:7653)
4. **SHALL** contain at least one [1..*] **id** (CONF:7655)
5. **SHALL** contain exactly one [1..1] **code** (CONF:7656)
6. **SHALL** contain exactly one [1..1] **statusCode**, where the @code **SHALL** be selected from ValueSet *ProcedureActStatusCode* `2.16.840.1.113883.11.20.9.22` **DYNAMIC** (CONF:7661)
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:7662)
8. **MAY** contain zero or one [0..1] **priorityCode**, where the @code **SHALL** be selected from ValueSet *ActPriority* `2.16.840.1.113883.1.11.16866` **STATIC** (CONF:7668)
9. **MAY** contain zero or one [0..1] **methodCode** (CONF:7670)
10. **SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:7683), where the @code **SHALL** be selected from ValueSet *Body Site Value Set* `2.16.840.1.113883.3.88.12.3221.8.9` **STATIC** 2 (CONF:16082)
11. **MAY** contain zero or more [0..*] **specimen** (CONF:7697)

    This specimen is for representing specimens obtained from a procedure.

    a. Such specimens **SHALL** contain exactly one [1..1] specimenRole (CONF:7704)
    b. Such specimens specimenRole **SHOULD** contain zero or more [0..*] id (CONF:7716)
    c. Such specimens To indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id **SHOULD** be set to equal an Organizer/specimen/ specimenRole/id. (CONF:7717)
12. **MAY** contain zero or more [0..*] **participant** (CONF:7765, CONF:7752, CONF:15912)

    a. Contains exactly one [1..1] *Service Delivery Location* (templateId: `2.16.840.1.113883.10.20.22.4.32`)
13. **SHOULD** contain zero or more [0..*] **performer** (CONF:7718)

    a. Such performers **SHALL** contain exactly one [1..1] assignedEntity (CONF:7720)

    b. Such performers assignedEntity **SHALL** contain at least one [1..*] id (CONF:7722)

    c. Such performers assignedEntity **SHALL** contain exactly one [1..1] addr (CONF:7731)

    d. Such performers assignedEntity **SHALL** contain exactly one [1..1] telecom (CONF:7732)

    e. Such performers assignedEntity **SHOULD** contain zero or one [0..1] representedOrganization (CONF:7733)

    f. Such performers representedOrganization, if present, **SHOULD** contain zero or more [0..*] id (CONF:7734)

    g. Such performers representedOrganization, if present, **MAY** contain zero or more [0..*] name (CONF:7735)

    h. Such performers representedOrganization, if present, **SHALL** contain exactly one [1..1] addr (CONF:7736)

    i. Such performers representedOrganization, if present, **SHALL** contain exactly one [1..1] telecom (CONF:7737)

14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:7886, CONF:7887, CONF:15915)

    a. Contains **@typeCode="**COMP" *COMP*

    b. Contains exactly one [1..1] *Medication Activity* (templateId: 2.16.840.1.113883.10.20.22.4.16)

15. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:7775, CONF:7776, CONF:15913)

    a. Contains **@typeCode="**SUBJ" *SUBJ*

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

16. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:7779, CONF:7780, CONF:15914)

    a. Contains **@typeCode="**RSON" *RSON*

    b. Contains exactly one [1..1] *Indication* (templateId: 2.16.840.1.113883.10.20.22.4.19)

17. **MAY** contain zero or more [0..*] **participant** (CONF:7751, CONF:7752, CONF:15911)

    a. Contains exactly one [1..1] *Product Instance* (templateId: 2.16.840.1.113883.10.20.22.4.37)

18. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:7768)

    a. Such entryRelationships **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:8009)

    b. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:7769)

    c. Such entryRelationships **SHALL** contain exactly one [1..1] **encounter** (CONF:7770)

        a. This encounter **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7771)

        b. This encounter **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7772)

        c. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:7773)

        d. This encounter **MAY** satisfy: Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter. (CONF:16843)

19. code in a procedure activity **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12), ICD9 Procedures (codeSystem 2.16.840.1.113883.6.104), ICD10 Procedure Coding System (codeSystem 2.16.840.1.113883.6.4) (CONF:7657)

20. code **SHOULD** contain zero or one [0..1] originalText (CONF:7658)

21. originalText, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15908)

22. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15909)

23. reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:15910)

24. methodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:7890)

25. entryRelationship with target entry encounter **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:8009)

26. participant with target entry Product Instance **SHALL** contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) STATIC (CONF:7752)

27. participant with target entry Service Delivery Location **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) STATIC (CONF:7766)

28. entryRelationship with target entry Instructions **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:7777)

29. 'code' **SHOULD** be selected from SNOMED CT (codeSystem 2.16.840.1.113883.6.96) or CPT-4 (CodeSystem 2.16.840.1.113883.6.12)

Procedure Activity Procedure example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<procedure xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
 classCode="PROC">
  <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
  <id root="MDHT" extension="1016505782"/>
  <code code="1368997271"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
  <priorityCode codeSystem="2.16.840.1.113883.5.7"
 codeSystemName="ActPriority"/>
  <methodCode code="1702505955"/>
  <targetSiteCode codeSystem="2.16.840.1.113883.6.96"
 codeSystemName="SNOMEDCT"/>
</procedure>
```

Result Observation

[Observation: templateId `2.16.840.1.113883.10.20.22.4.2`]

1. **SHALL** conform to *Consol Result Observation* template (templateId: `2.16.840.1.113883.10.20.22.4.2`)
2. **SHALL** contain exactly one [1..1] **code** (CONF:7133)
3. The value for 'code' in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1)

1. **SHALL** conform to *Consol Result Observation* template (templateId: `2.16.840.1.113883.10.20.22.4.2`)
2. **SHALL** contain exactly one [1..1] **@classCode**=`"OBS"` *Observation* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:7130)
3. **SHALL** contain exactly one [1..1] **@moodCode**=`"EVN"` *Event* (CodeSystem: `2.16.840.1.113883.5.1001 HL7ActMood`) (CONF:7131)
4. **SHALL** contain at least one [1..*] **id** (CONF:7137)
5. **SHALL** contain exactly one [1..1] **code** (CONF:7133)
6. **SHOULD** contain zero or one [0..1] **text** (CONF:7138)
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7134), where the @code **SHALL** be selected from ValueSet *Result Status* `2.16.840.1.113883.11.20.9.39` **STATIC** 2012-04-27 (CONF:14849)
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:7140, CONF:7141)

   • *Represents clinically effective time of the measurement, which may be when the measurement was performed (e.g., a BP measurement), or may be when sample was taken (and measured some time afterwards) CONF:16838*

9. **SHALL** contain exactly one [1..1] **value** (CONF:7143)
10. **SHOULD** contain zero or more [0..*] **interpretationCode** (CONF:7147)
11. **MAY** contain zero or one [0..1] **methodCode** (CONF:7148)
12. **MAY** contain zero or one [0..1] **targetSiteCode** with data type CE (CONF:7153)
13. text, if present, **SHOULD** contain zero or one [0..1] reference (CONF:15924)

14. reference, if present, **SHOULD** contain zero or one [0..1] @value (CONF:15925)

15. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:15926)

16. The value for 'code' in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96) Laboratory results **SHOULD** be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or other constrained terminology named by the US Department of Health and Human Services Office of National Coordinator or other federal agency. Local and/or regional codes for laboratory results are allowed. The Local and/or regional codes **SHOULD** be sent in the translation element. (CONF:7166)

17. **SHOULD** contain zero or more [0..*] referenceRange. Such referenceRanges, if present, **SHALL** contain exactly one [1..1] observationRange. This observationRange **SHALL NOT** contain [0..0] code (CONF:7152)

18. **MAY** contain zero or one [0..1] author (CONF:7149)

19. The value for 'code' in a result observation **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1)

Result Observation example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
 classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <id root="MDHT" extension="535232899"/>
  <code code="390375436"/>
  <text>Text Value</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
  <interpretationCode code="1171812914"/>
  <methodCode code="1872193308"/>
  <targetSiteCode code="2108748224"/>
</observation>
```

Result Organizer

[Organizer: templateId 2.16.840.1.113883.10.20.22.4.1]

1. **SHALL** conform to *Consol Result Organizer* template (templateId: 2.16.840.1.113883.10.20.22.4.1)
2. **SHALL** contain at least one [1..*] **component** (CONF:7124, CONF:14850)

   a. Contains exactly one [1..1] *Result Observation* (templateId: 2.16.840.1.113883.10.20.22.4.2)

1. **SHALL** conform to *Consol Result Organizer* template (templateId: 2.16.840.1.113883.10.20.22.4.1)
2. **SHALL** contain exactly one [1..1] **@classCode** (CONF:7121)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:7122)
4. **SHALL** contain at least one [1..*] **id** (CONF:7127)
5. **SHALL** contain exactly one [1..1] **code** (CONF:7128)
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:7123), where the @code **SHALL** be selected from ValueSet *Result Status* 2.16.840.1.113883.11.20.9.39 **STATIC** 2012-04-27 (CONF:14848)
7. **SHALL** contain at least one [1..*] **component** (CONF:7124, CONF:14850)

   a. Contains exactly one [1..1] *Result Observation* (templateId: 2.16.840.1.113883.10.20.22.4.2)

8. The value for 'code' in a result organizer **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) or SNOMED CT (codeSystem 2.16.840.1.113883.6.96) and **MAY** be selected from CPT-4 (codeSystem 2.16.840.1.113883.6.12). Laboratory results **SHOULD** be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or other constrained terminology named by the US Department of Health and Human Services Office of National Coordinator or other federal agency. Local and/or regional codes for laboratory results **SHOULD** also be allowed. (CONF:7164)

9. **SHOULD** contain zero or one [0..1] @classCode="CLUSTER" Cluster (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) OR **SHOULD** contain zero or one [0..1] @classCode="BATTERY" Battery (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:7165)

Result Organizer example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<organizer xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
 moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
  <id root="MDHT" extension="1717354769"/>
  <code code="1141813944"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <id root="MDHT" extension="1751512311"/>
      <code code="1250876759"/>
      <statusCode code="completed"/>
      <effectiveTime>
        <low value="2012"/>
        <high value="2012"/>
      </effectiveTime>
    </observation>
  </component>
</organizer>
```

Smoking Status Observation

[Observation: templateId `2.16.840.1.113883.10.22.4.78`]

1. **SHALL** conform to *Consol Tobacco Use* template (templateId: `2.16.840.1.113883.10.20.22.4.85`)
2. **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *Smoking Status* **STATIC**

1. **SHALL** conform to *Consol Tobacco Use* template (templateId: `2.16.840.1.113883.10.20.22.4.85`)
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: `2.16.840.1.113883.5.6 HL7ActClass`) (CONF:16558)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: `2.16.840.1.113883.5.1001 HL7ActMood`) (CONF:16559)
4. **SHALL** contain exactly one [1..1] **code** (CONF:16560)/**@code**="ASSERTION" *Assertion* (CodeSystem: `2.16.840.1.113883.5.4 HL7ActCode`)
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:16561)/**@code**="completed" *Completed* (CodeSystem: `2.16.840.1.113883.5.14 ActStatus`)

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:16564)
7. **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *Smoking Status* **STATIC**
8. effectiveTime **SHALL** contain exactly one [1..1] low (CONF:16565)

Smoking Status Observation example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<observation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
 classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.22.4.78"/>
  <templateId root="2.16.840.1.113883.10.20.22.4.85"/>
  <id root="MDHT" extension="2105519780"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
 codeSystemName="HL7ActCode" displayName="Assertion"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="2012"/>
    <high value="2012"/>
  </effectiveTime>
  <value xsi:type="CD" code="225601685"/>
</observation>
```

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:

- *Ethnicity Category ValueSet*
- *Language Code*
- *Race Category ValueSet*
- *Smoking Status*

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

Ethnicity Category ValueSet

Value Set	Ethnicity Category ValueSet - (OID not specified)
Code System	Race and Ethnicity - CDC - 2.16.840.1.113883.6.238

Code	Code System	Print Name
2135-2	Race and Ethnicity - CDC	Hispanic or Latino
2186-5	Race and Ethnicity - CDC	Not Hispanic or Latino

Language Code

Value Set	LanguageCode - (OID not specified)
Code System	LOINC - 2.16.840.1.113883.6.1

Code	Code System	Print Name
aar	LOINC	Afar
abk	LOINC	Abkhazian
afr	LOINC	Afrikaans
aka	LOINC	Akan
sqi	LOINC	Albanian
amh	LOINC	Amharic
ara	LOINC	Arabic
arg	LOINC	Aragonese
hye	LOINC	Armenian
asm	LOINC	Assamese
ava	LOINC	Avaric
ave	LOINC	Avestan
aym	LOINC	Aymara
aze	LOINC	Azerbaijani
bak	LOINC	Bashkir
bam	LOINC	Bambara
eus	LOINC	Basque
bel	LOINC	Belarusian
ben	LOINC	Bengali
bih	LOINC	Bihari languages
bis	LOINC	Bislama
bod	LOINC	Tibetan
bos	LOINC	Bosnian

Code	Code System	Print Name
bre	LOINC	Breton
bul	LOINC	Bulgarian
mya	LOINC	Burmese
cat	LOINC	Catalan; Valencian
ces	LOINC	Czech
cha	LOINC	Chamorro
che	LOINC	Chechen
zho	LOINC	Chinese
chu	LOINC	Church Slavic; Old Slavonic; Church Slavonic; Old Bulgarian; Old Church Slavonic
chv	LOINC	Chuvash
cor	LOINC	Cornish
cos	LOINC	Corsican
cre	LOINC	Cree
cym	LOINC	Welsh
dan	LOINC	Danish
deu	LOINC	German
div	LOINC	Divehi; Dhivehi; Maldivian
nld	LOINC	Dutch; Flemish
dzo	LOINC	Dzongkha
ell	LOINC	Greek, Modern (1453-)
eng	LOINC	English
epo	LOINC	Esperanto
est	LOINC	Estonian
ewe	LOINC	Ewe
fao	LOINC	Faroese
fas	LOINC	Persian
fij	LOINC	Fijian
fin	LOINC	Finnish
fra	LOINC	French
fry	LOINC	Western Frisian
ful	LOINC	Fulah
kat	LOINC	Georgian
ger	LOINC	German
gla	LOINC	Gaelic; Scottish Gaelic
gle	LOINC	Irish

Code	Code System	Print Name
glg	LOINC	Galician
glv	LOINC	Manx
grn	LOINC	Guarani
guj	LOINC	Gujarati
hat	LOINC	Haitian; Haitian Creole
hau	LOINC	Hausa
heb	LOINC	Hebrew
her	LOINC	Herero
hin	LOINC	Hindi
hmo	LOINC	Hiri Motu
hrv	LOINC	Croatian
hun	LOINC	Hungarian
ibo	LOINC	Igbo
isl	LOINC	Icelandic
ido	LOINC	Ido
iii	LOINC	Sichuan Yi; Nuosu
iku	LOINC	Inuktitut
ile	LOINC	Interlingue; Occidental
ina	LOINC	Interlingua (International Auxiliary Language Association)
ind	LOINC	Indonesian
ipk	LOINC	Inupiaq
ita	LOINC	Italian
jav	LOINC	Javanese
jpn	LOINC	Japanese
kal	LOINC	Kalaallisut; Greenlandic
kan	LOINC	Kannada
kas	LOINC	Kashmiri
kau	LOINC	Kanuri
kaz	LOINC	Kazakh
khm	LOINC	Central Khmer
kik	LOINC	Kikuyu; Gikuyu
kin	LOINC	Kinyarwanda
kir	LOINC	Kirghiz; Kyrgyz
kom	LOINC	Komi
kon	LOINC	Kongo

Code	Code System	Print Name
kor	LOINC	Korean
kua	LOINC	Kuanyama; Kwanyama
kur	LOINC	Kurdish
lao	LOINC	Lao
lat	LOINC	Latin
lav	LOINC	Latvian
lim	LOINC	Limburgan; Limburger; Limburgish
lin	LOINC	Lingala
lit	LOINC	Lithuanian
ltz	LOINC	Luxembourgish; Letzeburgesch
lub	LOINC	Luba-Katanga
lug	LOINC	Ganda
mkd	LOINC	Macedonian
mah	LOINC	Marshallese
mal	LOINC	Malayalam
mri	LOINC	Maori
mar	LOINC	Marathi
msa	LOINC	Malay
mlg	LOINC	Malagasy
mlt	LOINC	Maltese
mon	LOINC	Mongolian
nau	LOINC	Nauru
nav	LOINC	Navajo; Navaho
nbl	LOINC	Ndebele, South; South Ndebele
nde	LOINC	Ndebele, North; North Ndebele
ndo	LOINC	Ndonga
nep	LOINC	Nepali
nno	LOINC	Norwegian Nynorsk; Nynorsk, Norwegian
nob	LOINC	Bokmål, Norwegian; Norwegian Bokmål
nor	LOINC	Norwegian
nya	LOINC	Chichewa; Chewa; Nyanja
oci	LOINC	Occitan (post 1500)
oji	LOINC	Ojibwa
ori	LOINC	Oriya
orm	LOINC	Oromo
oss	LOINC	Ossetian; Ossetic

Code	Code System	Print Name
pan	LOINC	Panjabi; Punjabi
pli	LOINC	Pali
pol	LOINC	Polish
por	LOINC	Portuguese
pus	LOINC	Pushto; Pashto
que	LOINC	Quechua
roh	LOINC	Romansh
ron	LOINC	Romanian; Moldavian; Moldovan
run	LOINC	Rundi
rus	LOINC	Russian
sag	LOINC	Sango
san	LOINC	Sanskrit
sin	LOINC	Sinhala; Sinhalese
slk	LOINC	Slovak
slv	LOINC	Slovenian
sme	LOINC	Northern Sami
smo	LOINC	Samoan
sna	LOINC	Shona
snd	LOINC	Sindhi
som	LOINC	Somali
sot	LOINC	Sotho, Southern
spa	LOINC	Spanish; Castilian
srd	LOINC	Sardinian
srp	LOINC	Serbian
ssw	LOINC	Swati
sun	LOINC	Sundanese
swa	LOINC	Swahili
swe	LOINC	Swedish
tah	LOINC	Tahitian
tam	LOINC	Tamil
tat	LOINC	Tatar
tel	LOINC	Telugu
tgk	LOINC	Tajik
tgl	LOINC	Tagalog
tha	LOINC	Thai
tir	LOINC	Tigrinya

Code	Code System	Print Name
ton	LOINC	Tonga (Tonga Islands)
tsn	LOINC	Tswana
tso	LOINC	Tsonga
tuk	LOINC	Turkmen
tur	LOINC	Turkish
twi	LOINC	Twi
uig	LOINC	Uighur; Uyghur
ukr	LOINC	Ukrainian
urd	LOINC	Urdu
uzb	LOINC	Uzbek
ven	LOINC	Venda
vie	LOINC	Vietnamese
vol	LOINC	Volapük
wln	LOINC	Walloon
wol	LOINC	Wolof
xho	LOINC	Xhosa
yid	LOINC	Yiddish
yor	LOINC	Yoruba
zha	LOINC	Zhuang; Chuang
zul	LOINC	Zulu

Race Category ValueSet

Value Set	Race Category ValueSet - (OID not specified)
Code System	Race and Ethnicity - CDC - 2.16.840.1.113883.6.238

Code	Code System	Print Name
1002-5	Race and Ethnicity - CDC	American Indian or Alaska Native
2028-9	Race and Ethnicity - CDC	Asian
2076-8	Race and Ethnicity - CDC	Native Hawaiian or Other Pacific Islander
2106-3	Race and Ethnicity - CDC	White
2054-5	Race and Ethnicity - CDC	Black or African American

Smoking Status

Value Set	Smoking Status - (OID not specified)
Code System	SNOMEDCT - 2.16.840.1.113883.6.96

Code	Code System	Print Name
449868002	SNOMEDCT	Current every day smoker
428041000124106	SNOMEDCT	Current some day smoker
8517006	SNOMEDCT	Former smoker
266919005	SNOMEDCT	Never smoker (Never Smoked)
77176002	SNOMEDCT	Smoker, current status unknown
266927001	SNOMEDCT	Unknown if ever smoked
428071000124103	SNOMEDCT	Heavy tobacco smoker
428061000124105	SNOMEDCT	Light tobacco smoker

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- 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.
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- 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*