

HL7 Draft Standard for Trial Use

Implementation Guide for CDA Release 2: Vital Records Death Report, Release 1



HL7 DSTU Ballot

**Sponsored By:
Public Health and Emergency Response Work Group**

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Chapter 1

INTRODUCTION

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- [Conventions Used in This Guide](#)
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Overview

This US Realm implementation guide (IG) specifies a standard for transmitting death related information from a clinical setting to a vital statistics registry

Approach

The document focuses on the use case describing the communication of that portion of the death record collected by clinicians to appropriate local, state, and territorial vital statistics agencies using the HL7 Clinical Document Architecture. The goal of the implementation guide is to provide safe, reliable delivery of relevant clinical information to vital records. The use case supported by this implementation guide does not cover the data that is reported by funeral directors.

This use case is not intended to cover reporting to national public health agencies (NCHS).

The following assumption is a precondition for the use of this implementation guide: The data requirements for clinician supplied death information for items to be completed by the medical certifier according to the Edit Specifications for the U.S. Standard Certificate of Death. The jurisdiction may have additional data requirements and edit specifications that will be addressed at the jurisdictional level.

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), and balloted through Health Level Seven (HL7).

Scope

This specification covers the provision of death reporting data to the applicable jurisdictional vital reporting agency within the United States. This is a US realm specification.

Audience

This guide is designed for use by analysts and developers who require guidance on how best to use the HL7 Clinical Document Architecture for providing death related information. Users of this guide must be familiar with the Clinical Document Architecture, and with the HL7 Version 3 models that it relies on. This guide is not intended to be a tutorial on that subject.

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. 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.

The Implementation Guide provides definition for the vocabulary items that are needed as content for those elements using coded data types. The use of coded types, and the precise expression of the valid content of code sets is essential to enable efficient processing of subject data report content, and to allow the proper use of the contained data. Within this guide, the vocabulary section documents the various act code values used to define structural elements - to identify particular acts or observations. It also defines the several value sets needed to constrain the semantic content of coded items. In principle, all the vocabulary needed to support subject data reporting would draw on a common set of concepts. This has been done wherever possible, and the Public Health Information Network (PHIN) Vocabulary Access and Distribution System (VADS) is used as the repository and source for the commonly agreed upon vocabulary items.

In a number of cases, the NCVS edit specifications for data collection allow the entry of "UNKNOWN" to represent the case in which desired information is not available. This concept is captured, within this implementation guide, through use of the nullFlavor - UNK". The reader should note that the value sets for this implementation guide include concepts from the HL7 NullFlavor code system as well as from other code systems, e.g., SNOMED CT. If an instance needs to contain a value such as UNK - from the NullFlavor code systems, that value is passed within the nullFlavor attribute of the coded element as opposed to within the code attribute.

Throughout this Implementation Guide, the bindings between coded attributes and the cited value sets are dynamic. It is expected that implementations will use the most recent version of the value sets as published within PHIN VADS.

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

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. The reader should note that, currently, the examples are based on fixed strings placed within the appropriate location of the XML document. Future releases of this guide are expected to contain a more realistic example.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
...
</ClinicalDocument>
```

Figure 3: ClinicalDocument example

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

HL7 Modeling Conventions

Participations, Roles and Entities

Recording information about the person or organization that participates in an act is an important feature of the CDA structure. To cite the most salient examples, the CDA document header has information about the document author, its custodian, and the associated person - the "record target". Some of the other observations or acts within the Implementation Guide, also include participations such as "location". According to the HL7 Reference Information Model, this information is captured in a specific way. For example, a "Person", playing the role of "Assigned Entity", participates in the document as its "Author". In each case, the relevant information is spread across three implementation guide elements: there is a participation, a role, and an entity. In some cases, the names are very similar, so that it looks as if information is being repeated.

Multiplicity within Act Relationships and Participations

A key task for the implementation guide is to convey information about which items are optional and which are required. You can see this information next to the elements within the document by viewing the statements of multiplicity, e.g., 0..1, and by reviewing the conditional expressions, SHALL, SHOULD, MAY. While reviewing the document it is important to keep in mind that much information is captured as an observation. In the typical case, there will be an observation that is associated, as an entry, with the document body. In each case, there is an act relationship class that associates the observation with the document body. The relevant multiplicity is captured within the document body section, and shows whether the observation is required or not, and whether it repeats. However, within each observation, the multiplicity indicates that, if the observation is present, it must have a value for code, for value, for class code, for mood code.

Chapter

2

DOCUMENT TEMPLATES

Topics:

- [*Reporting Death Information from a clinical setting to Vital Records*](#)

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

Reporting Death Information from a clinical setting to Vital Records

[ClinicalDocument: templateId 2.16.840.1.113883.10.20.26.1]

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.26.1"
2. **SHALL** contain exactly one [1..1] **@classCode**="DOCCLIN" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:1)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:2)
4. **SHALL** contain exactly one [1..1] **code** (CONF:3)/**@code**="69409-1" *U.S. standard certificate of death - 2003 revision* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:4)
 - *The .code value indicates that the document contains death information.*
5. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:6), which **SHALL** be selected from (CodeSystem: 2.16.840.1.11.3883.5.25 Confidentiality) (CONF:5)
 - *An indication of the level of confidentiality with which the document needs to be managed.*
6. **SHALL** contain exactly one [1..1] **id** (CONF:7)
 - *Provide the identifier assigned to the document by the healthcare provider acting as a custodian of the information.*
7. **SHOULD** contain zero or one [0..1] **languageCode** (CONF:8), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.11.11526 HumanLanguage) (CONF:9)
 - *The language used for text within the document.*
8. **SHALL** contain exactly one [1..1] **realmCode** (CONF:10)/**@code**="US" (CodeSystem: 1.0.3166.1 Country (ISO 3166-1)) (CONF:11)
9. **SHOULD** contain zero or one [0..1] **title** (CONF:12)
 - *Provide a title for the death information document.*
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:13)
 - *The point in time at which the document was completed.*
11. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:14)

The recordTarget participation contains information that directly refers to the decedent.

 - a. This recordTarget **SHALL** contain exactly one [1..1] **@typeCode**="RCT" (CONF:30)
 - b. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:31)
 - a. This patientRole **SHALL** contain exactly one [1..1] **addr** (CONF:35)

Street address, city, state and zip code are expected.
 - b. This patientRole **SHALL** contain exactly one [1..1] **@classCode**="PAT" (CONF:33)
 - c. This patientRole **SHALL** contain at least one [1..*] **id** (CONF:34)

One or more identifiers may be provided. Social Security Number of the decedent is required, and must be provided if it is available. If SSN is not available, a null flavor must be provided. Additional identifier types are allowed. Note, when including US Social Security Number as the patient identifier, the OID value to be used for the II root is 2.16.840.1.113883.3.184.
 - d. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:36)
 - a. This patient **SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:37), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.5.1 AdministrativeGenderCode) (CONF:38)
 - b. This patient **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:39)
 - c. This patient **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:40)

- d. This patient **SHALL** contain exactly one [1..1] **name** (CONF:41)
- e. This patientRole **SHALL** satisfy: Value patient.id root with 2.16.840.1.113883.4.1 (US Social Security Number) (CONF:32)

12. SHALL contain exactly one [1..1] **author** (CONF:15)

The author participation contains information about the person who authored the document.

- a. This author **SHALL** contain exactly one [1..1] **time** (CONF:22)

The date/time of authorship is required by CDA. It may be set equal to the document creation date/time.

- b. This author **SHALL** contain exactly one [1..1] **@typeCode="AUT"** (CONF:21)
- c. This author **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:23)
 - a. This assignedAuthor **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** (CONF:24)
 - b. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:25)
 - c. This assignedAuthor **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:26)
 - a. This assignedPerson **SHALL** contain exactly one [1..1] **@classCode="PSN"** (CONF:27)
 - b. This assignedPerson **SHALL** contain exactly one [1..1] **@determinerCode="INSTANCE"** (CONF:28)
 - c. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:29)

Provide the name of the clinician authoring the report.

13. SHALL contain exactly one [1..1] **custodian** (CONF:16)

The custodian represents the organization that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the document. Every CDA document has exactly one custodian.

- a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:18)
 - a. This assignedCustodian Contains exactly one [1..1] **representedCustodianOrganization**
 - a. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **id** (CONF:20)
 - b. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:19)

14. SHALL contain exactly one [1..1] **component** (CONF:17)

- a. Contains exactly one [1..1] *Death Report Document Body* (templateId: 2.16.840.1.113883.10.20.26.1.1)

Chapter

3

SECTION TEMPLATES

Topics:

- *Death Report Document Body*

Death Report Document Body

[Section: templateId 2.16.840.1.113883.10.20.26.1.1]

1. **SHALL** contain exactly one [1..1] templateId () such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.1"
2. **SHALL** contain exactly one [1..1] **code** (CONF:48)/@code="69409-1" *U.S. standard certificate of death - 2003 revision* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:49)
 - *A code to indicate this is the section containing death reporting information.*
3. **SHALL** contain exactly one [1..1] **text** (CONF:50)
 - *The text entry is drawn from the structured content contained within the entries of this section. Text is required to provide human readable content.*
4. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:51)
 - a. Contains exactly one [1..1] *Date and Time of Death* (templateId: 2.16.840.1.113883.10.20.26.1.13)
5. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:52)
 - *The report is expected to capture information about the physical location of death, either as an address or as a description.*
 - a. Contains exactly one [1..1] *Location of Death* (templateId: 2.16.840.1.113883.10.20.26.1.10)
6. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:53)
 - a. Contains exactly one [1..1] *Death LocationType* (templateId: 2.16.840.1.113883.10.20.26.1.8)
7. If section/@nullFlavor is not present, **SHOULD** contain zero or one [0..1] **entry** (CONF:54)
 - a. Contains exactly one [1..1] *Certifying Death* (templateId: 2.16.840.1.113883.10.20.26.1.7)
8. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:55)
 - a. Contains exactly one [1..1] *Manner of Death* (templateId: 2.16.840.1.113883.10.20.26.1.11)
9. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:56)
 - a. Contains exactly one [1..1] *Pronouncing Death* (templateId: 2.16.840.1.113883.10.20.26.1.15)
10. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:57)
 - *Note, the entry is required if the person is female and in the age range 5 to 75 years. In other cases, e.g., male decedent, the nullFlavor "NA", should be provided.*
 - a. Contains exactly one [1..1] *Pregnancy Status* (templateId: 2.16.840.1.113883.10.20.26.1.12)
11. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:58)
 - a. Contains exactly one [1..1] *Tobacco Use* (templateId: 2.16.840.1.113883.10.20.26.1.14)
12. If section/@nullFlavor is not present, **SHOULD** contain zero or one [0..1] **entry** (CONF:59)
 - a. Contains exactly one [1..1] *Injury* (templateId: 2.16.840.1.113883.10.20.26.1.9)
13. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:60)
 - a. Contains exactly one [1..1] *Death Causal Information* (templateId: 2.16.840.1.113883.10.20.26.1.6)
14. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:61)
 - a. Contains exactly one [1..1] *Autopsy Performance* (templateId: 2.16.840.1.113883.10.20.26.1.2)
15. If section/@nullFlavor is not present, **MAY** contain zero or one [0..1] **entry** (CONF:62)
 - a. Contains exactly one [1..1] *Autopsy Results* (templateId: 2.16.840.1.113883.10.20.26.1.3)
16. If section/@nullFlavor is not present, **MAY** contain zero or one [0..1] **entry** (CONF:63)
 - a. Contains exactly one [1..1] *Coroner Referral* (templateId: 2.16.840.1.113883.10.20.26.1.5)

17. If section/@nullFlavor is not present, **SHALL** contain exactly one [1..1] **entry** (CONF:64)

- a. Contains exactly one [1..1] *Coroner Case Transfer* (templateId: 2.16.840.1.113883.10.20.26.1.4)

Chapter

4

CLINICAL STATEMENT TEMPLATES

Topics:

- *Autopsy Performance*
- *Autopsy Results*
- *Certifying Death*
- *Coroner Case Transfer*
- *Coroner Referral*
- *Date and Time of Death*
- *Death Causal Information*
- *Death Location Type*
- *Injury*
- *Location of Death*
- *Manner of Death*
- *Pregnancy Status*
- *Pronouncing Death*
- *Tobacco Use*

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.

Autopsy Performance

[Observation: templateId 2.16.840.1.113883.10.20.26.1.2]

The template contains information on the performance of an autopsy. Minimally, information on whether or not an autopsy was performed is recorded.

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.26.1.2"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:186)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:187)
4. **SHALL** contain exactly one [1..1] **code** (CONF:188)/**@code**="21986-5" *Autopsy Status* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:189)
 - *The code value notes that autopsy status information is provided.*
5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:190)
 - *If an autopsy is performed, this field is valued with the date and time the autopsy was begun and completed. Start date/time for the autopsy is recorded using the low property of the interval data type, while the completion date and time are recorded using the high property of the data type. Note, normally only the completion date and time will be provided.*
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:191)
 - *An indicator that tells whether an autopsy was performed.*
7. **SHOULD** contain zero or one [0..1] **performer** (CONF:192)
 - a. This performer **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CONF:193)
 - b. This performer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:194)
 - a. This assignedEntity **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:195)
 - b. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:196)
 - a. This assignedPerson **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:197)
 - b. This assignedPerson **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:198)
 - c. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:199)

This field is valued with the name of the person who performed the autopsy.

Autopsy Results

[Observation: templateId 2.16.840.1.113883.10.20.26.1.3]

The template contains information regarding the availability of results from an autopsy.

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.26.1.3"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:200)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:201)
4. **SHALL** contain exactly one [1..1] **code** (CONF:203)/**@code**="69436-4" *Autopsy results available* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:202)

- A code that indicates that information about the availability of autopsy results is provided.
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="BL" (CONF:204)
 - An indicator that tells whether an autopsy report is available for the decedent.
 6. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:205)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:206)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **observation** (CONF:207)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:208)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:210)/**@code="18743-5"** *Autopsy Report* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:211)

The code value indicates that the observation contains the autopsy report.
 - c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:209)
 - d. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="ED" (CONF:212)

The content of the autopsy report.

Certifying Death

[Observation: templateId 2.16.840.1.113883.10.20.26.1.7]

The template contains information on the certification of the person's death. This information may not be available if a case has been assigned to the coroner or medical examiner.

The certifying physician certifies or reports the cause of death. In addition the certifying physician is responsible for including additional items, e.g., pregnancy status, tobacco use. In most cases, a physician will both pronounce death and certify or report the cause of death. A different physician will pronounce death only when the attending physician is unavailable to certify the cause of death at the time of death and if State law provides for this option. If an inquiry is required by a State Post-Mortem Examinations Act, a medical examiner or coroner is responsible for determining cause of death.

1. **SHALL** contain exactly one [1..1] **templateId ()** such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.26.1.7"**
2. **SHALL** contain exactly one [1..1] **@classCode** (CONF:71)
3. **SHALL** contain exactly one [1..1] **@moodCode** (CONF:72)
4. **SHALL** contain exactly one [1..1] **code/@code="69437-2"** *Death Certifier* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:73)
5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:74)
 - Provide the date and time at which the death certificate was signed. A value is required if the case has not been assigned to a coroner/medical examiner.
6. **SHALL** contain exactly one [1..1] **performer** (CONF:75)
 - a. This performer **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:76)
 - b. This performer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:77)
 - a. This assignedEntity **SHALL** contain exactly one [1..1] **addr** (CONF:82)

The postal address used to locate the clinician or coroner at the time of death certification.

The element is required if the death has been certified.
 - b. This assignedEntity **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** (CONF:78)

- c. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:80), which **SHALL** be selected from ValueSet *Certifier Titles (NCHS)* 2.16.840.1.114222.4.11.7212 **DYNAMIC** (CONF:81)

A coded value that indicates the role played by the person certifying the death. E.g., coroner, physician.

- d. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:79)

One or more identifiers for the certifying clinician. The state license number is required. Provider NPI may be added as well.

- e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:83)
 - a. This assignedPerson **SHALL** contain exactly one [1..1] **@classCode="PSN"** (CONF:84)
 - b. This assignedPerson **SHALL** contain exactly one [1..1] **@determinerCode="INSTANCE"** (CONF:85)
 - c. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:86)

This field is valued with the person who signed the death certificate. The full name of the certifier is required.

A value is required if the case has not been assigned to a coroner/medical examiner.

Coroner Case Transfer

[Observation: templateId 2.16.840.1.113883.10.20.26.1.4]

The template contains information related to transfer of the case to a coroner or medical examiner for investigative purposes.

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.26.1.4"**
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:218)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:219)
4. **SHALL** contain exactly one [1..1] **code** (CONF:220)/**@code="LOINC TBD"** *Coroner Indicator* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:221)
 - *A code value that indicates that the case/death has been assigned to the coroner/medical examiner for investigative purposes.*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="BL"** (CONF:222)
 - *An indicator that tells whether the case was transferred to a coroner or medical examiner.*
6. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:223)

The coroner case identifier may be provided, if the case has been transferred to the coroner or medical examiner.

- a. This entryRelationship **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:226)
- b. This entryRelationship **SHALL** contain exactly one [1..1] **code** (CONF:227)/**@code="69452-1"** *Coroner-medical examiner case number* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:228)
- c. This entryRelationship **SHALL** contain exactly one [1..1] **value** with **@xsi:type="II"** (CONF:229)

The identifier assigned to a case of death by the coroner or medical examiner.

Coroner Referral

[Observation: templateId 2.16.840.1.113883.10.20.26.1.5]

The template contains information regarding the referral of a case to the coroner or medical examiner.

1. **SHALL** contain exactly one [1..1] templateId () such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.5"
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:213)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:214)
4. **SHALL** contain exactly one [1..1] code (CONF:215)/@code="69438-0" Referral note Forensic medicine (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:216)
5. **SHALL** contain exactly one [1..1] value with @xsi:type="ED" (CONF:217)
 - A note that is intended to record the reason the case was forwarded to a coroner or medical examiner.

Date and Time of Death

[Observation: templateId 2.16.840.1.113883.10.20.26.1.13]

The template provides information about the decedent's date and time of death.

1. **SHALL** contain exactly one [1..1] templateId (2.16.840.113883.10.20.24.1.3) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.13"
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:42)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:43)
4. **SHALL** contain exactly one [1..1] code (CONF:44)/@code="31211-6" Date of Death (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:45)
5. **SHALL** contain exactly one [1..1] effectiveTime with @xsi:type="TS" (CONF:46)
 - Provide the date and time of death if it is known.
6. **MAY** contain zero or one [0..1] text (CONF:47)
 - Provide information relevant to the date/time of death in cases where the point in time can in no way be established. If needed, supplemental text may be added to indicate that date/time information, while present, is approximate.

Death Causal Information

[Organizer: templateId 2.16.840.1.113883.10.20.26.1.6]

The template contains information provided by the clinician to indicate the cause or causes behind the person's death. The information includes the chain of events that directly caused the death, and includes other significant conditions contributing to death. There may be up to four causal elements provided, along with a single statement of the other significant conditions.

1. **SHALL** contain exactly one [1..1] templateId () such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.6"

2. **SHALL** contain exactly one [1..1] **@classCode="CLUSTER"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:104)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:105)
4. **SHALL** contain exactly one [1..1] **code/@code="69453-9"** *Cause Of Death (US Standard Certificate of Death)* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:106)
 - *A code that indicates that death causal information is provided.*
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:107)/**@code="Active"** (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:108)
 - *An indication of the status of the death causal information organizer.*
6. **SHALL** contain [1..4] **component** (CONF:109)

Up to four events - diseases, injuries, or complications may be entered to record the cause of death. The immediate cause of death and the underlying cause of death must be reported.

Additional causes of death up to two may be recorded. These are entered in a defined sequence, and the order of each is recorded using sequence number. In addition, the approximate time interval from onset until death is captured as well. this information is captured in the related Component Death Cause Interval observation. The act relationship sequence number value is used to associate the time between onset and death with the relevant event.

- a. Such components **SHALL** contain exactly one [1..1] **sequenceNumber** (CONF:118)
- b. Such components **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:119)
- c. Such components **SHALL** contain exactly one [1..1] **observation** (CONF:120)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:121)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:122)/**@code="21984-0"** *Cause of Death* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:123)

An indication that the observation contains information regarding a specific cause of death.

- c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:124)
- d. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:125)

In order to comply with NCHS edit specifications, the entry is descriptive text with a maximum length of 120 characters. . Death causes are ordered sequentially with the immediate cause of death given the sequence number "1", and the underlying cause of death being given the highest sequence number among the set of cited causes. Each cause of death is associated with a numeric observation Death Cause Interval which captures the approximate interval between the onset of the death cause (condition) and death. This linkage is implemented through the use of actRelationship.sequenceNumber.

- e. This observation **SHALL** contain exactly one [1..1] **componentDeathCauseInterval** (CONF:126)
 - a. This componentDeathCauseInterval **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:127)
 - b. This componentDeathCauseInterval **SHALL** contain exactly one [1..1] **observation** (CONF:128)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:129)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:130)/**@code="69440-6"** *Disease onset to death interval* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:131)

An indication that the observation contains information regarding the interval between disease onset and time of death.

- c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:132)

- d. This observation **SHALL** contain zero or more [0..*] **value** with @xsi:type="ED" (CONF:133)

A measure of the time interval between the onset of the disease, injury or complication, and the person's death. The data to be included will vary from statements of time intervals to text statements such as "many months", "days", "unknown".

Each death cause interval value is associated with a cause of death observation Cause of Death - that identifies the condition associated with the time interval. This linkage is implemented through the use of actRelationship.sequenceNumber.

7. **SHOULD** contain zero or more [0..*] **component** (CONF:110)

- a. Such components **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:111)
- b. Such components **SHALL** contain exactly one [1..1] **observation** (CONF:112)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:113)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:115)/**@code="69441-4"** *Other Significant Condition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:116)
 - c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:114)
 - d. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="ED" (CONF:117)

Descriptive text that provides information on a significant condition or conditions that contributed to death, but did not result in the underlying cause that is elsewhere described. In order to comply with NCHS edit specifications, the maximum length of the significant condition descriptions, across the set of encapsulated date values, is 240 characters.

Death Location Type

[Observation: templateId 2.16.840.1.113883.10.20.26.1.8]

This template makes it possible to record the type of location, e.g., hospital inpatient room, at which the person died.

1. **SHALL** contain exactly one [1..1] **templateId ()** such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.26.1.8"**
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:230)
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:231)
4. **SHALL** contain exactly one [1..1] **code** (CONF:232)/**@code="58332-8"** *Location of Death* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:233)
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:234), which **SHALL** be selected from ValueSet *Place of Death (NCHS)* 2.16.840.1.114222.4.11.7216 **DYNAMIC** (CONF:235)
 - *A code value to indicate the type of location where the patient died.*

Injury

[Organizer: templateId 2.16.840.1.113883.10.20.26.1.9]

The template includes information, only provided if relevant, on an injury that contributed to the person's death.

1. **SHALL** contain exactly one [1..1] **templateId ()** such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.26.1.9"**

2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:134)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:135)
4. **SHALL** contain exactly one [1..1] **code** (CONF:136)/**@code**="71481-6" *Did the death of this person involve injury of any kind?* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:137)
 - *An indication that the person's death resulted from an injury.*
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:138), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:139)
6. **SHALL** contain exactly one [1..1] **component** (CONF:140)
 - a. This component **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:144)
 - b. This component **SHALL** contain exactly one [1..1] **observation** (CONF:145)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:146)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:148)/**@code**="11374-6" *Injury incident description* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:149)
 - c. This observation **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:152)

A record of the date and time that the injury occurred.
 - d. This observation **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:147)
 - e. This observation **SHALL** contain exactly one [1..1] **text** (CONF:151)

A text description of how the injury occurred.
 - f. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:153)

An indicator that tells whether the death resulted from an injury.
 - g. This observation **SHALL** contain exactly one [1..1] **participant** (CONF:154)
 - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="LOC" (CONF:155)
 - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:156)
 - a. This participantRole **SHALL** contain exactly one [1..1] **addr** (CONF:157)

The street address for the place where the injury occurred.
 - b. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="ISDLOC" (CONF:158)
 - c. This participantRole **SHALL** contain exactly one [1..1] **scopingEntity** (CONF:159)
 - a. This scopingEntity **SHALL** contain exactly one [1..1] **@classCode**="PLC" (CONF:160)
 - b. This scopingEntity **SHALL** contain exactly one [1..1] **desc** (CONF:163)

A description of the type of place where the injury occurred. Some possible entries include "at home", "farm", "factory", "office building", "restaurant".
 - c. This scopingEntity **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:161)
7. **SHALL** contain exactly one [1..1] **component** (CONF:141)
 - a. This component **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:164)
 - b. This component **SHALL** contain exactly one [1..1] **observation** (CONF:165)
 - a. This observation **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:166)
 - b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:168)/**@code**="69444-8" *Did death result from injury at work* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:169)
 - c. This observation **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:167)

- d. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="BL" (CONF:170)

*An indicator that tells whether or not the injury occurred while the person was at work.
Required if the decedent suffered an injury leading to death.*

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

- a. This component **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:171)

- b. This component **SHALL** contain exactly one [1..1] **observation** (CONF:172)

- a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:173)

- b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:175)/**@code="69448-9"** *Injury leading to death associated with transportation event* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:176)

- c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:174)

- d. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="BL" (CONF:177)

*An indicator that tells whether the injury leading to death was associated with a transportation event.
Required if the decedent suffered an injury leading to death.*

- 9. **MAY** contain zero or one [0..1] **component** (CONF:143)

- a. This component **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:178)

- b. This component **SHALL** contain exactly one [1..1] **observation** (CONF:179)

- a. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:180)

- b. This observation **SHALL** contain exactly one [1..1] **code** (CONF:182)/**@code="69451-3"** *Transportation role of decedent* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:183)

- c. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:181)

- d. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:184), which **SHALL** be selected from ValueSet *Transportation Relationships (NCHS)* 2.16.840.1.114222.4.11.6005 **DYNAMIC** (CONF:185)

*A coded value that states, if the injury was related to transportation, the specific role played by the decedent, e.g. driver, passenger.
Required if the decedent suffered an injury leading to death.*

Location of Death

[Observation: templateId 2.16.840.1.113883.10.20.26.1.10]

This template contains information to document the place (geographic location) where the death occurred.

- 1. **SHALL** contain exactly one [1..1] **templateId ()** such that it

- a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.26.1.10"**

- 2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:65)

- 3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:66)

- 4. **SHALL** contain exactly one [1..1] **code** (CONF:67)/**@code="58332-8"** *Location of Death* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:68)

- 5. **MAY** contain zero or one [0..1] **text** (CONF:69)

- *Information about the place where death occurred. It is provided if no address can be.*
6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="AD" (CONF:70)
- *The mailing address for the place where the person died. This attribute is collected if the person died at a home, a health facility, or other location with a postal address.*

Manner of Death

[Observation: templateId 2.16.840.1.113883.10.20.26.1.11]

This template contains information on the manner in which the death occurred.

1. **SHALL** contain exactly one [1..1] templateId () such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.11"
2. **SHALL** contain exactly one [1..1] @classCode="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:87)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:88)
4. **SHALL** contain exactly one [1..1] code (CONF:89)/@code="69449-7" *Manner of Death* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:90)
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:91), where the @code **SHALL** be selected from ValueSet *Manner Of Death (NCHS)* 2.16.840.1.114222.4.11.6002 **DYNAMIC** (CONF:92)
 - *A coded indication of the manner in which the person died.*

Pregnancy Status

[Observation: templateId 2.16.840.1.113883.10.20.26.1.12]

This template contains information on the pregnancy status of the decedent.

1. **SHALL** contain exactly one [1..1] templateId () such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.26.1.12"
2. **SHALL** contain exactly one [1..1] @classCode="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:93)
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:94)
4. **SHALL** contain exactly one [1..1] code (CONF:95)/@code="69442-2" *Timing of recent pregnancy related to death* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:96)
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:97), where the @code **SHALL** be selected from ValueSet *Pregnancy Status (NCHS)* 2.16.840.1.114222.4.11.6003 **DYNAMIC** (CONF:98)
 - *A code that provides information regarding whether or not the person was pregnant at the time of her death, or whether she was pregnant around the time of death.
Required if the person is female and in the age range 5 to 75 years.*

Pronouncing Death

[Observation: templateId 2.16.840.1.113883.10.20.26.1.15]

The template contains information on the pronouncing of the person's death.

In most cases, a physician will both pronounce death and certify or report the cause of death. A different physician will pronounce death only when the attending physician is unavailable to certify the cause of death at the time of death and if State law provides for this option.

Note, information on the pronouncing physician is only provided when the pronouncing physician and the certifying physician are different persons.

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.26.1.15"
2. **SHALL** contain exactly one [1..1] **@classCode** (CONF:236)
3. **SHALL** contain exactly one [1..1] **@moodCode** (CONF:237)
4. **SHALL** contain exactly one [1..1] **code/@code**="LOINC TBD" *Death Pronouncer* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:238)
5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:239)
 - *Provide the date and time at which the decedent was pronounced dead.*
6. **MAY** contain zero or one [0..1] **performer** (CONF:240)
 - a. This performer **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CONF:241)
 - b. This performer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:242)
 - a. This assignedEntity **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:243)
 - b. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:244)

One or more identifiers for the pronouncing clinician. The state license number is required. Provider NPI may be added as well. The element is required if the pronouncing and certifying physicians are different persons.
 - c. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:245)
 - a. This assignedPerson **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:246)
 - b. This assignedPerson **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:247)
 - c. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:248)

This field is valued with the name of the person who pronounced death. The full name is required. The element is required if the pronouncing and certifying physicians are different persons.

Tobacco Use

[Observation: templateId 2.16.840.1.113883.10.20.26.1.14]

this template includes information about the decedent's use of tobacco.

1. **SHALL** contain exactly one [1..1] **templateId** () such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.26.1.14"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:99)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:100)

4. **SHALL** contain exactly one [1..1] **code/@code="69443-0" Tobacco Use** (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:101)
 - *A coded indication of the extent of the person's use of tobacco. The data is captured if tobacco use may have contributed to their death.*
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:102), which **SHALL** be selected from (CONF:103)

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:

- *Certifier Titles (NCHS)*
- *Certifier Types (NCHS)*
- *Contributory Tobacco Use (NCHS)*
- *Country (GEC)*
- *Manner Of Death (NCHS)*
- *Place of Death (NCHS)*
- *Pregnancy Status (NCHS)*
- *Transportation Relationships (NCHS)*

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

The vocabulary content within this implementation guide is based on the value sets identified in the US national standard. States/jurisdictions can introduce other values such as "hospice" and translate to "Other" prior to reporting.

Certifier Titles (NCHS)

Value Set	Certifier Titles (NCHS) - 2.16.840.1.114222.4.11.7212
Code System	PHIN VS (CDC Local Coding System) - 2.16.840.1.114222.4.5.274
Version	2
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7212
Description	The value set collects all the codes defined within the Certifier Types coding system.

Certifier Types (NCHS)

Value Set	Certifier Types (NCHS) - 2.16.840.1.114222.4.11.6001
Version	1
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6001
Description	To reflect the type of certifier for the death certificate.

Contributory Tobacco Use (NCHS)

Value Set	Contributory Tobacco Use (NCHS) - 2.16.840.1.114222.4.11.6004
Version	2
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6004
Description	To reflect the extent to which tobacco use contributed to the person's death.

Country (GEC)

Value Set	Country (GEC) - 2.16.840.1.114222.4.11.7162
Version	1
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7162
Description	Country value set includes current countries as well as historical countries based on Geopolitical Entities and Codes (GEC). This list will be used for coding of birth, fetal death, and death certificates from 2014 onwards. A few codes appear more than once in the list alphabetized under commonly used variants of the official name. Note that the codes are not available for countries that ceased to exist prior to June 15, 1970.

Manner Of Death (NCHS)

Value Set	Manner Of Death (NCHS) - 2.16.840.1.114222.4.11.6002
-----------	--

Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	1
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6002
Description	To reflect the manner that a person died.

Place of Death (NCHS)

Value Set	Place of Death (NCHS) - 2.16.840.1.114222.4.11.7216
Code System	PHIN VS (CDC Local Coding System) - 2.16.840.1.114222.4.5.274
Version	2
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7216
Description	To reflect the death location of the decedent.

Pregnancy Status (NCHS)

Value Set	Pregnancy Status (NCHS) - 2.16.840.1.114222.4.11.6003
Code System	PHIN VS (CDC Local Coding System) - 2.16.840.1.114222.4.5.274
Version	2
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6003
Description	To reflect whether the decedent was pregnant at or around the time of death.

Transportation Relationships (NCHS)

Value Set	Transportation Relationships (NCHS) - 2.16.840.1.114222.4.11.6005
Code System	SNOMEDCT - 2.16.840.1.113883.6.96
Version	2
Source	PHIN Vocabulary Access and Distribution System
Source URL	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6005
Description	To reflect the specific role played by the decedent, e.g., driver, passenger in a death related to transportation.

Chapter 7

Example Messages

Topics:

- [Death Report Sample](#)

Death Report Sample

The sample message has been constructed to illustrate the use of this implementation guide to constrain CDA in the representation of a death report.

```
<?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_SDTC.xsd"
  classCode="DOCCLIN" moodCode="EVN">
  <!--
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="urn:hl7-org:v3" classCode="DOCCLIN" moodCode="EVN"
  xsi:schemaLocation="urn:hl7-org:v3 /Documents/Specs/HL7/CDA_R2/
infrastructure/cda/CDA.xsd">
  xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd" -->
  <realmCode/>
  <typeId extension="POCD_MT000040" root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.10.20.26.1"/>
  <id root="1.1" extension="1052464931"/>
  <!-- Provide an OID that identifies the namespace for the identifier. -->
  <code code="69409-1" codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC" displayName="U.S. standard certificate of death -
  2003 revision"/>
  <title/>
  <!-- SHALL contain exactly one [1..1] code/@code="69409-1" U.S. standard
  certificate of death - 2003
revision (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
• The .code value indicates that the document contains death information. -->
  <effectiveTime/>
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"
  codeSystemName="Confidentiality" displayName="Normal"/>
  <languageCode code="en-us"/>
  <recordTarget typeCode="RCT">
    <patientRole classCode="PAT">
      <id root="2.16.840.1.113883.4.1" extension="123457689"/>
      <!-- Provide an OID that identifies the namespace for the identifier, in
      this case, SSN. -->
      <addr use="WP">
        <streetAddressLine>100 SOUTH 100 EAST</streetAddressLine>
        <city>SALT LAKE CITY</city>
        <state>UT</state>
        <postalCode>84111</postalCode>
      </addr>
      <!-- The guide does not include address. You will want to document its
      inclusion. -->
      <patient classCode="PSN" determinerCode="INSTANCE">
        <name>
          <family>Doe</family>
          <given>Jane</given>
          <given>A.</given>
        </name>
        <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"
        codeSystemName="AdministrativeGenderCode" displayName="Female"/>
        <birthTime value="19700304"/>
      </patient>
    </patientRole>
  </recordTarget>
  <author typeCode="AUT">
    <time value="20121201100000"/>
    <assignedAuthor classCode="ASSIGNED">
      <id root="1.1" extension="126134972"/>
```

```

<!-- Provide an OID that identifies the namespace for the identifier. -->
<assignedPerson classCode="PSN" determinerCode="INSTANCE">
  <name>
    <family>Doe</family>
    <given>John</given>
    <given>M.</given>
  </name>
</assignedPerson>
</assignedAuthor>
</author>
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id root="1.1" extension="1288898110"/>
      <!-- Provide an OID that identifies the namespace for the identifier. --
>
      <name>Acme Organization</name>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
<component>
  <structuredBody>
    <component>
      <!-- Death Information Template -->
      <section>
        <templateId root="2.16.840.1.113883.10.20.26.1.1"/>
        <code code="69409-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="U.S. standard certificate of death -
2003 revision"/>
        <title/>
        <confidentialityCode code="Value"/>
        <entry>
          <!-- Time of Death Observation -->
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.26.1.13"/>
            <code code="31211-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Date of Death"/>
            <text>Optional information relevant to the date/time of death in
cases where the point in time can in no way be established.</text>
            <effectiveTime>
              <low value="20121201100000"/>
              <high value="20121201100000"/>
            </effectiveTime>
          </observation>
        </entry>
        <entry>
          <!-- Location of Death Observation -->
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.26.1.10"/>
            <code code="58332-8" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Location of Death"/>
            <value use="HP" xsi:type="AD">
              <streetAddressLine>104 MAIN STREET</streetAddressLine>
              <city>SALT LAKE CITY</city>
              <state>UT</state>
              <postalCode>84111</postalCode>
            </value>
          </observation>
        </entry>
        <entry>
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.26.1.7"/>
            <code code="69437-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Death Certifier"/>

```

```

    <effectiveTime>
      <low value="20121201100000"/>
      <high value="20121201100000"/>
    </effectiveTime>
    <performer typeCode="PRF">
      <assignedEntity classCode="ASSIGNED">
        <id root="1.1" extension="1234567"/>
        <!-- Provide an OID that identifies the namespace for the
identifier. -->
        <code code="CP" codeSystem="2.16.840.1.114222.4.5.274"
codeSystemName="PHIN VS (CDC Local Coding System)" displayName="Certifying
Physician (MD, DP)"/>
        <addr use="WP">
          <streetAddressLine>104 MAIN STREET</streetAddressLine>
          <city>SALT LAKE CITY</city>
          <state>UT</state>
          <postalCode>84111</postalCode>
        </addr>
        <assignedPerson classCode="PSN" determinerCode="INSTANCE">
          <name>
            <family>Doe</family>
            <given>John</given>
            <given>M.</given>
          </name>
        </assignedPerson>
      </assignedEntity>
    </performer>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.26.1.11"/>
    <code code="69449-7" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Manner of Death"/>
    <value code="38605008" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Natural Death (event)"
xsi:type="CD"/>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.26.1.7"/>
    <code code="LOINC TBD" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Death Pronouncer"/>
    <effectiveTime>
      <low value="20121201100000"/>
      <high value="20121201100000"/>
    </effectiveTime>
    <performer typeCode="PRF">
      <assignedEntity classCode="ASSIGNED">
        <id root="1.1.2" extension="1234567"/>
        <!-- Provide an OID that identifies the namespace for the
identifier. -->
        <addr use="WP">
          <streetAddressLine>104 SECONDARY STREET</streetAddressLine>
          <city>SALT LAKE CITY</city>
          <state>UT</state>
          <postalCode>84111</postalCode>
        </addr>
        <assignedPerson classCode="PSN" determinerCode="INSTANCE">
          <name>
            <family>Buck</family>
            <given>Jane</given>
            <given>F.</given>

```

```

    </name>
  </assignedPerson>
</assignedEntity>
</performer>
</observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.26.1.12"/>
    <code code="69442-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Pregnancy Status"/>
    <value code="PS1" codeSystem="2.16.840.1.114222.4.5.274"
codeSystemName="PHIN VS (CDC Local Coding System)" displayName="Not
pregnant within the past year" xsi:type="CD"/>
  </observation>
</entry>
<entry>
  <!-- Tobacco Use - This is optional -->
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.9"/>
    <code code="69443-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Tobacco Use"/>
    <value code="N" codeSystem="2.16.840.1.113883.12.136"
codeSystemName="HL70136" displayName="No" xsi:type="CD"/>
  </observation>
</entry>
<entry>
  <!-- Injury - This is optional -->
  <organizer classCode="CLUSTER" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.10"/>
    <code code="71481-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Did the death of this person involve
injury of any kind"/>
    <statusCode code="completed"/>
    <component typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <code code="11374-6" displayName="Injury incident description"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <text mediaType="text/plain">A description of how the injury
occurred.</text>
        <effectiveTime value="20121129"/>
        <value xsi:type="BL" value="true"/>
      </observation>
    </component>
    <component typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <code code="69444-8" displayName="Did death result from injury at
work" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <value xsi:type="BL" value="false"/>
      </observation>
    </component>
    <component typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <code code="69448-9" displayName="Injury leading to death
associated with transportation event" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
        <value xsi:type="BL" value="true"/>
      </observation>
    </component>
    <component typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <code code="69451-3" displayName="Transportation role of decedent"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

```

```

    <value xsi:type="CD" code="303980003" displayName="Driver of moter
vehicle" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT"/>
  </observation>
</component>
</organizer>
</entry>
<entry>
  <!-- Cause of Death - This is optional -->
  <organizer classCode="CLUSTER" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.6"/>
    <code code="69453-9" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Cause Of Death (US Standard Certificate
of Death)"/>
    <statusCode code="completed"/>
    <!-- Note, at least one component containing death cause information
is required -->
    <component typeCode="COMP">
      <sequenceNumber value="1"/>
      <observation classCode="OBS" moodCode="EVN">
        <code code="21984-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Cause of Death"/>
        <value xsi:type="ED">PROBABLE ATCVD</value>
        <!-- Descriptive text that indicates one or more diseases,
injuries, or complications that were implicated as a cause of the person's
death. -->
        <entryRelationship typeCode="COMP">
          <observation classCode="OBS" moodCode="EVN">
            <code code="69440-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Disease onset to death interval"/>
            <value xsi:type="ED">Three Days</value>
            <!-- A measure of the time interval between the onset of the
disease, injury or complication, and the person's death. -->
            </observation>
          </entryRelationship>
        </observation>
      </component>
      <component typeCode="COMP">
        <sequenceNumber value="2"/>
        <observation classCode="OBS" moodCode="EVN">
          <code code="21984-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Cause of Death"/>
          <value xsi:type="ED">HTN</value>
          <!-- Descriptive text that indicates one or more diseases,
injuries, or complications that were implicated as a cause of the person's
death. -->
          <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
              <code code="69440-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Disease onset to death interval"/>
              <value xsi:type="ED">2 months</value>
              <!-- A measure of the time interval between the onset of the
disease, injury or complication, and the person's death. -->
              </observation>
            </entryRelationship>
          </observation>
        </component>
        <component typeCode="COMP">
          <observation classCode="OBS" moodCode="EVN">
            <code code="69441-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Death cause other significant
conditions"/>
            <value xsi:type="ED">Descriptive text that provides information on
a significant condition or conditions that contributed to death, but did
not result in the underlying cause that is elsewhere described. </value>

```

```

    </observation>
  </component>
</organizer>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.11"/>
    <code code="21986-5" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Autopsy Status"/>
    <effectiveTime>
      <low value="20121202100000"/>
      <high value="20121203100000"/>
    </effectiveTime>
    <value xsi:type="BL" value="true"/>
    <performer typeCode="PRF">
      <assignedEntity classCode="ASSIGNED">
        <id root="1.1" extension="1234567"/>
        <assignedPerson classCode="PSN" determinerCode="INSTANCE">
          <name>
            <family>Roe</family>
            <given>Ralph</given>
            <given>T.</given>
          </name>
        </assignedPerson>
      </assignedEntity>
    </performer>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.13"/>
    <code code="69436-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Autopsy results available"/>
    <value xsi:type="BL" value="true"/>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.14"/>
    <code code="69438-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Referral note Forensic medicine"/>
    <!-- My instance has a LOINC code 69438-0. -->
    <value xsi:type="ED">The reason the case was forwarded to the coroner
or medical examiner.</value>
  </observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.1.12"/>
    <id root="1.1" extension="1111111"/>
    <code code="LOINC_TBD" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Coroner Assignment"/>
    <value xsi:type="BL" value="true"/>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <code code="69452-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Coroner - medical examiner case
number"/>
        <value xsi:type="II" root="1.2.33" extension="1234-aa"/>
        <!-- Provide an OID that identifies the namespace for the
identifier. -->
      </observation>
    </entryRelationship>
  </observation>
</entry>

```



```
</entry>
</section>
</component>
</structuredBody>
</component>
</ClinicalDocument>
```

REFERENCES

- 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.
- Extensible Markup Language, www.w3.org/XML
- Dolin RH, Alschuler L, Boyer S, Beebe C, Behlen FM, Biron PV, Shabo A., HL7 Clinical Document Architecture, Release 2. J Am Med Inform Assoc. 2006;13:30-39. Available at: <http://www.jamia.org/cgi/reprint/13/1/30> .

