# Implementation Guide for CDA Release 2 Emergency Medical Services Patient Care Report (US REALM)



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# **Revision History**

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| First draft for posting | December 2010 | Dave Carlson | Updated model content and publication format |



# Chapter

1

# INTRODUCTION

# Topics:

- Overview
- Approach
- Scope
- Audience
- Organization of This Guide
- Use of Templates
- Conventions Used in This Guide

### **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

This has been edited.

#### **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, <a href="http://www.hl7.org/documentcenter/public/membership/HL7\_Governance\_and\_Operations\_Manual.pdf">http://www.hl7.org/documentcenter/public/membership/HL7\_Governance\_and\_Operations\_Manual.pdf</a>).

#### **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.XXX.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: <a href="http://wiki.hl7.org/index.php?title=CCD\_Suggested\_Enhancements">http://wiki.hl7.org/index.php?title=CCD\_Suggested\_Enhancements</a> The user name and password are: wiki/wikiwiki. You will need to create an account to edit the page and add your suggestion.

- 1. The value for "Observation / @moodCode" in a problem observation SHALL be "EVN" 2.16.840.1.113883.5.1001 ActMood STATIC. (CONF: 814).
- 2. A problem observation SHALL include exactly one Observation / statusCode. (CONF: 815).
- **3.** The value for "Observation / statusCode" in a problem observation SHALL be "completed" 2.16.840.1.113883.5.14 ActStatus STATIC. (CONF: 816).
- **4.** A problem observation SHOULD contain exactly one Observation / effectiveTime, to indicate the biological timing of condition (e.g. the time the condition started, the onset of the illness or symptom, the duration of a condition). (CONF: 817).

Figure 3: CCD conformance statements example

#### Keywords

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

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

#### **XML Examples**

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

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

#### Figure 4: ClinicalDocument example

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

# Chapter

2

# **DOCUMENT TEMPLATES**

# Topics:

• Patient Care Report

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

## **Patient Care Report**

[ClinicalDocument: templateId 2.16.840.1.113883.17.3.10.1]

- **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] @classCode="DOCCLIN" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass)
- **3. SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood)
- **4. SHALL** contain exactly one [1..1] **code** (CONF:5253)/@**code**="67796-3" *EMS Patient Care Report* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **5.** Contains zero or one [0..1] **author** 
  - a. This author SHALL contain zero or one [0..1] @typeCode="AUT"
  - b. This author Contains zero or one [0..1] assignedAuthor
    - a. This assigned Author **SHALL** contain zero or one [0..1] **@classCode**="ASSIGNED"
    - ${f b.}$  This assigned Author Contains zero or one [0..1] assigned Authoring Device
      - a. This assigned Authoring Device SHALL conform to Consol Authoring Device
      - b. This assigned Authoring Device SHALL contain exactly one [1..1] manufacturerModelName (CONF:9936)

NEMSIS Trace: ERecord.02

c. This assigned Authoring Device **SHALL** contain exactly one [1..1] **softwareName** (CONF:9999)

NEMSIS Trace: ERecord.03 and ERecord.04 (version), concatenated with an intervening space

- **6. SHALL** contain exactly one [1..1] **recordTarget** 
  - a. This recordTarget SHALL conform to Consol Record Target
  - **b.** This recordTarget Contains zero or one [0..1] **patientRole** 
    - a. This patientRole **SHALL** contain at least one [1..\*] addr

NEMSIS Trace EPatient.05 . . . /PatientRole/addr/streetAddressLine EPatient.06 . . . /PatientRole/addr/city EPatient.07 . . . /PatientRole/addr/county EPatient.08 . . . /PatientRole/addr/state Paatient.09 . . . / PatientRole/addr/country

**b.** This patientRole Contains at least one [1..\*] **id** 

NEMSIS Trace EPatient.01: root= the OID for the generating EMS agency, or "NI" EPatient.12: root=" 2.16.840.1.113883.3.184" (Social Security Administration) EPatient.20 and EPatient.21: root= the OID for the state department of motor vehicles, found at HL7.org, and reproduced as found in March of 2011 in appendix A.

c. This patientRole Contains zero or more [0..\*] telecom

NEMSIS Trace: EPatient.18

- **d.** This patientRole Contains zero or one [0..1] **patient** 
  - a. This patient Contains zero or one [0..1] birthTime

NEMSIS Trace EPatient.17

**b.** This patient **SHALL** contain zero or one [0..1] **ethnicGroupCode**, where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.238 Race and Ethnicity - CDC)

NEMSIS Trace: EPatient.14

c. This patient Contains zero or more [0..\*] name

NEMSIS Trace EPatient.02 . . . /PatientRole/Patient/name/family EPatient.03 . . . /PatientRole/Patient/name/given EPatient.04 . . . /PatientRole/Patient/name/given Name sub-elements SHOULD be in the

following order: family, given, middle (also "given"). For names from cultures not following the order assumed above, the "family" name SHOULD be populated with whatever name component should be used to sort by. E.g., for a person with a single name, "family" should be used.

**d.** This patient **SHALL** contain zero or one [0..1] **raceCode**, where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.238 Race and Ethnicity - CDC)

NEMSIS Trace: EPatient.14 NEMSIS collects race and ethnicity in the one-question format (see guidance at http://www.whitehouse.gov/omb/fedreg\_1997standards), but the HL7 RIM and, therefore, the CDA schema contain separate elements. It is necessary to populate both CDA fields based on the values selected for the NEMSIS question. Further, the CDA model includes a single race code. In order to support multiple race codes as required by OMB, we adopt a second race code entry from the HL7 SDWG namespace. All documents with a race code must populate the CDA race code; if more than one race code is recorded, then the SDWG element may also be populated. No semantic priority is implied by the element selection.

e. This patient **SHALL** contain zero or more [0..\*] **sDTCRaceCode**, where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.238 Race and Ethnicity - CDC)

NEMSIS Trace: EPatient.14

f. This patient SHALL contain exactly one [1..1] administrativeGenderCode, where the @code SHALL be selected from (CodeSystem: 2.16.840.1.113883.5.1 AdministrativeGenderCode)

NEMSIS Trace: EPatient.13

- 7. MAY contain zero or one [0..1] author
  - a. This author Contains zero or one [0..1] assignedAuthor
    - a. This assigned Author SHALL contain exactly one [1..1] id

NEMSIS Trace: EOther.08

b. This assigned Author SHALL contain zero or more [0..\*] addr

NEMSIS Trace DProfessional.04.../AssignedAuthor/addr/streetAddressLine DProfessional.05.../AssignedAuthor/addr/city DProfessional.06.../AssignedAuthor/addr/state DProfessional.07.../AssignedAuthor/addr/postalCode DProfessional.08.../AssignedAuthor/addr/country

c. This assigned Author SHALL contain exactly one [1..1] telecom

NEMSIS Trace: DProfessional.09

- **d.** This assigned Author Contains zero or one [0..1] **assignedPerson** 
  - **a.** This assignedPerson **SHALL** conform to *Consol Person*
  - **b.** This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:9406)

NEMSIS Trace DProfessional.01 . . . Person/name/family DProfessional.02 . . . Person/name/given DProfessional.03 . . . Person/name/given

- **8.** MAY contain exactly one [1..1] componentOf (CONF:9955)
  - a. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:9956)
    - a. This encompassing Encounter SHALL contain exactly one [1..1] effectiveTime (CONF:9958)
    - **b.** This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:9959)
- 9. Contains zero or one [0..1] componentOf
  - a. This componentOf SHALL contain zero or one [0..1] @typeCode="COMP"
  - b. This componentOf Contains zero or one [0..1] encompassingEncounter
    - a. This encompassing Encounter SHALL contain exactly one [1..1] effectiveTime

NEMSIS Trace: ETimes.03, the date the responding unit was notified by dispatch

- **b.** This encompassing Encounter Contains zero or one [0..1] **location** 
  - a. This location SHALL contain exactly one [1..1] healthCareFacility

a. This healthCareFacility SHALL contain exactly one [1..1] id

NEMSIS Trace: EResponse.04

- b. This healthCareFacility SHALL contain exactly one [1..1] location
  - a. This location **SHALL** contain exactly one [1..1] **@classCode**="PLC", where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.3 ICD-10)

NEMSIS Trace: EScene.09; Code under ICD-10 Y92

**b.** This location **MAY** contain zero or one [0..1] **name** 

NEMSIS Trace: EScene.13

c. This location MAY contain zero or one [0..1] addr

NEMSIS Trace: EScene.15-21

c. This healthCareFacility SHALL contain exactly one [1..1] code, where the @code SHALL be selected from ValueSet *UnitResponseRole* 2.16.840.1.113883.17.3.5.82 STATIC

NEMSIS Trace: EResponse.07

- 10. SHALL contain exactly one [1..1] component
  - **a.** Contains exactly one [1..1] *EMS Billing Section* (templateId: 2.16.840.1.113883.17.3.10.1.5)
- 11. MAY contain zero or one [0..1] versionNumber (CONF:5264)
  - May be null, and in most cases will not be used. In circumstances where updates are likely, it may be advantageous to default to "1" in the first instance.
- **12. SHALL** contain exactly one [1..1] id (CONF:5363)
  - NEMSIS trace: ERecord.01
- 13. SHALL contain exactly one [1..1] title = "EMS Patient Care Report" (CONF:5254)
- **14. MAY** contain zero or one [0..1] **component** 
  - **a.** Contains exactly one [1..1] *EMS Injury Incident Description Section* (templateId: 2.16.840.1.113883.17.3.10.1.17)
- 15. SHALL contain exactly one [1..1] component
  - a. This component Contains zero or one [0..1] @negationInd

If EHistory.12 has the value "None Reported," the value is "True" This negation of a notional class is parallel to the explicit question "patient on medication"

**b.** This component Contains zero or one [0..1] @nullFlavor

If EHistory.12 has the value "Refused" or "Unable to Complete," the value is "NI"; the original value may be recorded in SubstanceAdministration.text. This nulled notional class is parallel to the explicit question "patient on medication"

c. This component Contains zero or one [0..1] doseQuantity

NEMSIS Trace: EHistory.13, EHistory.14

d. This component SHALL contain zero or one [0..1] routeCode, where the @code SHALL be selected from ValueSet CurrentMedicationAdministrationRoute 2.16.840.1.113883.17.3.5.17 STATIC

NEMSIS Trace: EMedication.15

16. MAY contain zero or one [0..1] component

**a.** Contains exactly one [1..1] *EMS Cardiac Arrest Event Section* (templateId: 2.16.840.1.113883.17.3.10.1.14)

17. SHOULD contain zero or one [0..1] component

**a.** Contains exactly one [1..1] *EMS Advance Directives Section* (templateId: 2.16.840.1.113883.17.3.10.1.12)

#### 18. SHALL contain exactly one [1..1] component

**a.** Contains exactly one [1..1] *EMS Allergies And Adverse Reactions Section* (templateId: 2.16.840.1.113883.17.3.10.1.13)

#### 19. SHALL contain exactly one [1..1] component

**a.** Contains exactly one [1..1] *EMS Past Medical History* (templateId:

```
2.16.840.1.113883.17.3.10.1.19)
```

- **20. SHALL** contain exactly one [1..1] **component** 
  - a. Contains exactly one [1..1] EMS Social History (templateId: 2.16.840.1.113883.17.3.10.1.22)

#### 21. SHALL contain exactly one [1..1] component

**a.** Contains exactly one [1..1] *EMS Physical Assessment Section* (templateId:

```
2.16.840.1.113883.17.3.10.1.20)
```

- 22. MAY contain zero or one [0..1] component
  - **a.** Contains exactly one [1..1] *EMS Medications Administered Section* (templateId:

```
2.16.840.1.113883.17.3.10.1.18)
```

- 23. SHALL contain exactly one [1..1] component
  - **a.** Contains exactly one [1..1] *EMS Procedures Performed Section* (templateId:

```
2.16.840.1.113883.17.3.10.1.21)
```

- **24. SHALL** contain exactly one [1..1] **component** 
  - **a.** Contains exactly one [1..1] *EMS Patient Care Narrative* (templateId:

```
2.16.840.1.113883.17.3.10.1.1)
```

- **25. SHALL** contain exactly one [1..1] **component** 
  - **a.** Contains exactly one [1..1] *EMS Scene Section* (templateId: 2.16.840.1.113883.17.3.10.1.8)

#### Patient Care Report example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns="urn:hl7-org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd"
classCode="DOCCLIN" moodCode="EVN">
 <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="2.16.840.1.113883.17.3.10.1"/>
 <code code="67796-3" codeSystem="2.16.840.1.113883.6.1"</pre>
 codeSystemName="LOINC" displayName="EMS Patient Care Report"/>
 <title>TEXT FOR TITLE</title>
 <effectiveTime/>
 <confidentialityCode codeSystem="2.16.840.1.113883.5.25"</pre>
 codeSystemName="ConfidentialityCode"/>
 <setId root="50088c3d-cb00-4aef-a347-56c1330d9e91" extension="MDHT"/>
 <versionNumber value="1"/>
  <recordTarget>
    <patientRole/>
  </recordTarget>
  <author typeCode="AUT">
    <time/>
    <assignedAuthor classCode="ASSIGNED"/>
  </author>
  <author>
    <time/>
    <assignedAuthor/>
  </author>
  <custodian/>
```

```
<componentOf typeCode="COMP">
   <encompassingEncounter/>
  </componentOf>
  <component>
   <structuredBody>
     <component>
       <section/>
     </component>
     <component>
       <section/>
     </component>
     <component>
       <section/>
      </component>
      <component>
       <section/>
     </component>
    </structuredBody>
  </component>
</ClinicalDocument>
```

# Chapter

3

# **SECTION TEMPLATES**

#### **Topics:**

- Derived CDA Section
- EMS Advance Directives Section
- EMS Allergies And Adverse Reactions Section
- EMS Billing Section
- EMS Cardiac Arrest Event Section
- EMS Current Medication Section
- EMS Dispatch
- EMS Disposition Section
- EMS Injury Incident Description Section
- EMS Medications Administered Section
- EMS Past Medical History
- EMS Patient Care Narrative
- EMS Personnel Adverse Event
- EMS Physical Assessment Section
- EMS Procedures Performed Section
- EMS Protocol Section
- EMS Response
- EMS Scene Section
- EMS Situation Section
- EMS Social History
- EMS Vital Signs Section

#### **Derived CDA Section**

[Section: templateId null]

1.

**Derived CDA Section example** 

#### **EMS Advance Directives Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.12]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain zero or one [0..1] **code/@code**= "67840-9" *EMS Advance Directives* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3. SHOULD** contain zero or one [0..1] **title** = "EMS Advance Directives"

**EMS Advance Directives Section example** 

# **EMS Allergies And Adverse Reactions Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.13]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67841?7" EMS Allergies and Adverse Reactions (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHOULD contain zero or one [0..1] title = "EMS Allergies and Adverse Reactions"
- 4. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67794?8" *Existence of drug allergy* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component Contains zero or more [0..\*] **value** with data type BL

If NEMSIS EHistory.06 is "No Known Drug Allergies," the value should be FALSE. If it is a proper value, the value should be TRUE. If it is a flavor of null, the appropriate flavor should be used here. See the null table to translate NEMSIS flavors into HL7; original values may be stored in Observation.text.

- **b.** This entry **MAY** contain zero or more [0..\*] **component** 
  - a. Such components Contains exactly one [1..1] code
  - **b.** Such components **SHALL** contain exactly one [1..1] **value** with data type CD/@code="106190000" allergy (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT)
  - c. Such components Contains exactly one [1..1] eMSDrugAllergyParticipation
    - $\textbf{a.} \ \ This\ eMSDrugAllergyParticipation\ Contains\ exactly\ one\ [1..1]$

#### eMSDrugAllergyParticipantRole

- a. This eMSDrugAllergyParticipantRole Contains exactly one [1..1] playingEntity
  - a. This playingEntity **SHALL** contain exactly one [1..1] **code**, where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm)

NEMSIS Trace: EHistory.06

- 5. Contains exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] component

- a. This component **SHALL** contain exactly one [1..1] **code/@code**="69747?4" *EMS Existence of environmental allergy* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **b.** This component Contains zero or one [0..1] **value** with data type BL

If NEMSIS EHistory.07 has no values, this is FALSE; otherwise it is TRUE.

- **b.** This entry **MAY** contain zero or more [0..\*] **component** 
  - a. Such components **SHALL** contain exactly one [1..1] **code/@code**="69748?2" *Known allergies to food or environmental agents* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. Such components SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet EnvironmentalAllergyType 2.16.840.1.113883.17.3.5.83 STATIC

**EMS Allergies And Adverse Reactions Section example** 

# **EMS Billing Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.5]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain zero or one [0..1] code/@code="67659-3" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code=** "69464-6" *EMS level of service* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *EMSLevelOfService* 2.16.840.1.113883.17.3.5.70 **STATIC**
- **4.** Contains zero or one [0..1] **entry** 
  - **a.** This entry **SHALL** contain exactly one [1..1] **code/@code**="67556-1" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *EMSBillingCondition* 2.16.840.1.113883.17.3.5.71 **STATIC**

**EMS Billing Section example** 

#### EMS Cardiac Arrest Event Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.14]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain zero or one [0..1] code/@code="67799-7" EMS CARDIAC ARREST EVENT (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3. SHOULD** contain exactly one [1..1] **title** = "EMS Cardiac Arrest Event"
- 4. SHALL contain zero or one [0..1] entry
  - a. This entry Contains zero or one [0..1] @negationInd

Populate as true if NEMSIS EArrest.01 = "No"

- **b.** This entry **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *ASSERTION* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode)
- c. This entry Contains zero or one [0..1] effectiveTime

NEMSIS Trace: EArrest.14

**d.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD/@code="410429000" *cardiac* arrest (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT)

NEMSIS Trace: EArrest.01

- e. This entry Contains zero or one [0..1] entryRelationship
  - a. This entryRelationship Contains exactly one [1..1] @inversionInd="TRUE"
  - **b.** This entryRelationship Contains exactly one [1..1] @typeCode="SUBJ"
  - c. This entryRelationship Contains exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67503-3" *Cardiac arrest cause* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet CardiacArrestCause 2.16.840.1.113883.17.3.5.10 STATIC

NEMSIS Trace: EArrest.02

- f. This entry Contains zero or one [0..1] entryRelationship
  - a. This entryRelationship SHALL contain exactly one [1..1] @inversionInd="TRUE"
  - **b.** This entryRelationship Contains exactly one [1..1] @typeCode="SUBJ"
  - c. This entryRelationship Contains exactly one [1..1] observation
    - **a.** This observation **SHALL** contain exactly one [1..1] **code/@code=** "67502-5" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet CardiacArrestTiming 2.16.840.1.113883.17.3.5.91 STATIC

NEMSIS Trace: EArrest.01

- g. This entry Contains zero or one [0..1] informant
  - a. This informant Contains exactly one [1..1] @typeCode="INF"
- h. This entry Contains zero or one [0..1] entryRelationship
  - a. This entryRelationship Contains exactly one [1..1] @inversionInd="TRUE"
  - **b.** This entryRelationship Contains exactly one [1..1] @typeCode="SUBJ"
  - c. This entryRelationship Contains exactly one [1..1] observation
    - a. This observation SHALL contain exactly one [1..1] code/@code="67506-6" CPR prior to EMS arrival (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation Contains zero or more [0..\*] **value** with data type BL

NEMSIS Trace: EArrest.05

- c. This observation Contains zero or one [0..1] participant
  - a. This participant Contains exactly one [1..1] @typeCode="RESP"
  - **b.** This participant Contains zero or one [0..1] participantRole
    - a. This participantRole SHALL contain zero or one [0..1] code, where the @code SHALL be selected from ValueSet PriorCareProviderRole 2.16.840.1.113883.17.3.5.12 STATIC
- i. This entry Contains zero or one [0..1] entryRelationship
  - a. This entryRelationship Contains zero or one [0..1] @inversionInd="TRUE"
  - **b.** This entryRelationship Contains exactly one [1..1] @typeCode="SUBJ"
  - c. This entryRelationship Contains exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67508-2" *AED use prior to EMS arrival* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

b. This observation SHALL contain zero or more [0..\*] value with data type CD, where the @code SHALL be selected from ValueSet AEDUsePriorToEMSArrival 2.16.840.1.113883.17.3.5.13 STATIC

NEMSIS Trace: EArrest.07

- c. This observation Contains zero or one [0..1] participant
  - a. This participant Contains exactly one [1..1] @typeCode="RESP"
  - **b.** This participant Contains exactly one [1..1] participantRole
    - a. This participantRole **SHALL** contain zero or one [0..1] **code**, where the @code **SHALL** be selected from ValueSet *PriorCareProviderRole* 2.16.840.1.113883.17.3.5.12 **STATIC**

NEMSIS Trace: EArrest.08

- **j.** This entry Contains zero or one [0..1] **entryRelationship** 
  - a. This entryRelationship Contains zero or one [0..1] @inversionInd="TRUE"
  - **b.** This entryRelationship Contains exactly one [1..1] @typeCode="SUBJ"
  - c. This entryRelationship Contains exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67513-2" *Return of spontaneous circulation* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ReturnOfSpontaneousCirculation* 2.16.840.1.113883.17.3.5.15 **STATIC**

NEMSIS Trace: EArrest.12

- k. This entry Contains zero or more [0..\*] entryRelationship
  - a. Such entryRelationships Contains exactly one [1..1] @inversionInd="TRUE"
  - b. Such entryRelationships Contains exactly one [1..1] @typeCode="SUBJ"
  - c. Such entryRelationships Contains exactly one [1..1] observation
    - a. This observation SHALL contain exactly one [1..1] code/@code="67519-9" Cardiac rhythm (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *CardiacRhythmReading* 2.16.840.1.113883.17.3.5.16 **STATIC**

NEMSIS Trace: EArrest.17

**EMS Cardiac Arrest Event Section example** 

## **EMS Current Medication Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.15]

NEMSIS Trace: EHistory.12

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain zero or one [0..1] code/@code="67844-1" EMS Current Medications (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3.** Contains zero or one [0..1] title

#### **EMS Current Medication Section example**

```
<?xml version="1.0" encoding="UTF-8"?>
<section xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:hl7-
org:v3" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd">
    <id root="1535456490" extension="MDHT"/>
```

```
<code code="67844-1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="EMS Current Medications"/>
   <title>TEXT FOR TITLE</title>
</section>
```

## **EMS Dispatch**

[Section: templateId 2.16.840.1.113883.17.3.10.1.2]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain exactly one [1..1] **code/@code**="67660?1" *Dispatch* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- **4. SHALL** contain exactly one [1..1] **title** = "EMS Dispatch"
- 5. MAY contain zero or one [0..1] eMsEmergencyMedicalDispatchRelationship
  - a. This eMSEmergencyMedicalDispatchRelationship SHALL contain exactly one [1..1] observation
    - a. This observation SHALL contain exactly one [1..1] code/@code="67488?7" EMDPerformed (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *EMDPerformed* 2.16.840.1.113883.17.3.5.48 **STATIC**
- 6. MAY contain zero or one [0..1] eMSComplaintReportedByDispatchRelationship
  - a. This eMSComplaintReportedByDispatchRelationship SHALL contain exactly one [1..1] observation
    - a. This observation SHALL contain exactly one [1..1] code
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *Complaint* 2.16.840.1.113883.17.3.5.49 **STATIC**

**EMS Dispatch example** 

# **EMS Disposition Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.4]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain exactly one [1..1] **code/@code**= "67796?3" *EMS Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3. SHALL** contain exactly one [1..1] **text**
- 4. SHALL contain exactly one [1..1] title = "EMS Disposition"
- SHALL contain exactly one [1..1] eMSNumberOfPatientsRelationship
  - a. This eMSNumberOfPatientsRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67547?0" *EMS Number of patients* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type INT
- 6. SHALL contain exactly one [1..1] eMSIncidentDispositionRelationship
  - a. This eMSIncidentDispositionRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67548?8" *EMS incident disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *IncidentOutcome* 2.16.840.1.113883.17.3.5.64 **STATIC**
- 7. SHALL contain exactly one [1..1] eMSTransportMethodRelationship

ล.

- 8. SHALL contain exactly one [1..1] eMSTransportModeRelationship
  - $\textbf{a.} \ \ This\ eMST ransport Mode Relationship\ \textbf{SHALL}\ contain\ exactly\ one\ [1..1]\ \textbf{observation}$ 
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67550?4" *EMS transport mode* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *TransportMode* 2.16.840.1.113883.17.3.5.66 **STATIC**
- 9. SHALL contain exactly one [1..1] eMSPatientConditionChangeAtDestinatinoRelationship
  - a. This eMSPatientConditionChangeAtDestinatinoRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67551?2" *EMS patient condition change at destination* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet PatientConditionChange 2.16.840.1.113883.17.3.5.59 STATIC
- 10. SHALL contain exactly one [1..1] eMSReasonForChoosingDestinationRelationship
  - a. This eMSReasonForChoosingDestinationRelationship SHALL contain exactly one [1..1] observation
    - **a.** This observation **SHALL** contain exactly one [1..1] **code/@code=** "67552?0" *EMS reason for choosing destination* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet <u>DestinationChoiceReason</u> 2.16.840.1.113883.17.3.5.68 STATIC
- 11. SHALL contain exactly one [1..1] eMSPrearrivalActivationRelationship
  - a. This eMSPrearrivalActivationRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "69462?0" *EMS prearrival activation performed* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
    - c. This observation **SHALL** contain zero or one [0..1] **effectiveTime**

NEMSIS Trace: EDisposition.25 Required if value is TRUE

#### **EMS Disposition Section example**

# **EMS Injury Incident Description Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.17]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="11374-6" Injury incident description (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3.** Contains exactly one [1..1] **entry** 
  - **a.** This entry **SHALL** contain exactly one [1..1] **code/@code**= "69543-7" *Injury Cause* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from

Add binding to ICD-10 chapter XX

- **4.** Contains zero or one [0..1] **entry** 
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**="67494-5" *Injury Mechanism* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

- **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *MechanismOfInjury* 2.16.840.1.113883.17.3.5.1 **STATIC**
- 5. Contains zero or one [0..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67495-2" Trauma Center Critieria (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain at least one [1..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *TraumaCenterCriteria* 2.16.840.1.113883.17.3.5.3 **STATIC**
- **6.** Contains zero or one [0..1] **entry** 
  - a. This entry SHALL contain exactly one [1..1] code/@code="67496-0" Other injury risk factors (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain at least one [1..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *InjuryRiskFactor* 2.16.840.1.113883.17.3.5.4 **STATIC**
- 7. Contains zero or one [0..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67497-8" Location of impact on the vehicle (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *VehicleImpactArea* 2.16.840.1.113883.17.3.5.5 **STATIC**
- **8.** Contains zero or one [0..1] **entry** 
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**= "67498-6" *Location of patient in vehicle* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *VehiclePassengerLocation* 2.16.840.1.113883.17.3.5.6 **STATIC**
- **9.** Contains zero or one [0..1] **entry** 
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**= "67499-4" *Safety equipment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain at least one [1..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *SafetyEquipmentType* 2.16.840.1.113883.17.3.5.7 **STATIC**
- **10.** Contains zero or one [0..1] **entry** 
  - a. This entry SHALL contain exactly one [1..1] code/@code="67500-9" Airbag deployment (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *AirbagStatus* 2.16.840.1.113883.17.3.5.8 **STATIC**
- **11.** Contains zero or one [0..1] **entry** 
  - a. This entry SHALL contain exactly one [1..1] code/@code="67501-7" Height of fall (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type PQ, where the @code **SHALL** be selected from ValueSet **STATIC**
- **12.** Contains zero or one [0..1] **text**
- **13.** Contains zero or one [0..1] title

**EMS Injury Incident Description Section example** 

#### **EMS Medications Administered Section**

**EMS Medications Administered Section example** 

# **EMS Past Medical History**

[Section: templateId 2.16.840.1.113883.17.3.10.1.19]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain exactly one [1..1] **code/@code**="67842?5" *EMS past medical history* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHOULD contain zero or one [0..1] title = "EMS Past Medical History"
- MAY contain zero or one [0..1] entry
  - a. This entry SHALL contain exactly one [1..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "67793?0" *Has the patient had any significant medical conditions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component Contains zero or more [0..\*] **value** with data type BL

If NEMSIS EHistory. 08 is "Refused" or "Unable to Complete," the value should be "NI"; the original value may be recorded in Observation.text. If NEMSIS EHistory. 08 is "None Reported," the value should be FALSE. If NEMSIS EHistory. 08 has proper values, the value should be TRUE.

- **b.** This entry **MAY** contain zero or more [0..\*] **component** 
  - a. Such components **SHALL** contain exactly one [1..1] **code/@code**="68487?8" *EMS History of Condition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** Such components **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from

If NEMSIS EHistory.08 is "No bleeding disorder," the value should be the appropriate ICD?10 code (D66, D67, D68) and negationIndicator should be TRUE.

**EMS Past Medical History example** 

#### **EMS Patient Care Narrative**

[Section: templateId 2.16.840.1.113883.17.3.10.1.1]

- 1. SHALL contain exactly one [1..1] code/@code="67781?5" EMS Patient Care Report Narrative (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 2. SHALL contain exactly one [1..1] text
  - NEMSIS Trace: ENarrative.01
- **3. SHALL** contain exactly one [1..1] **title** = "EMS Patient Care Report Narrative"

**EMS Patient Care Narrative example** 

#### **EMS Personnel Adverse Event**

[Section: templateId 2.16.840.1.113883.17.3.10.1.6]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67658?5" Exposures or injuries of EMS personnel (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- **4. SHALL** contain exactly one [1..1] **title** = "Exposures or Injuries of EMS Personnel"
- 5. SHALL contain exactly one [1..1] eMSExposureOrInjuryIndicatorRelationship

- a. This eMSExposureOrInjuryIndicatorRelationship SHALL contain exactly one [1..1] observation
  - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67554?6" *EMS personnel exposed or injured* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
- 6. SHALL contain zero or one [0..1] eMSAdverseEventTypeRelationship

Required if the adverse event indicator value = TRUE

a.

**EMS Personnel Adverse Event example** 

# **EMS Physical Assessment Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.20]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67668?4" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- 4. SHOULD contain exactly one [1..1] title
- **5. SHALL** contain at least one [1..\*] **entry** 
  - a. Such entrys SHALL contain exactly one [1..1] effectiveTime

NEMSIS Trace: EExam.03

- **b.** Such entrys **MAY** contain zero or one [0..1] **component** 
  - **a.** This component **SHALL** contain exactly one [1..1] **code/@code**="8335?2" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type PQ

UCUM units should be 'kg'

- c. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67670?0" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet LengthBasedTapeMeasure 2.16.840.1.113883.17.3.5.24 STATIC
- d. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67524?9" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain at least one [1..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *SkinAssessment* 2.16.840.1.113883.17.3.5.25 **STATIC**
- e. Such entrys MAY contain zero or one [0..1] component
  - **a.** This component **SHALL** contain exactly one [1..1] **code/@code**="67525?6" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet HeadAssessmentFinding 2.16.840.1.113883.17.3.5.26 STATIC
- **f.** Such entrys **MAY** contain zero or one [0..1] **component** 
  - **a.** This component **SHALL** contain exactly one [1..1] **code/@code=** "67526?4" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

- b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet FaceAssessmentFinding 2.16.840.1.113883.17.3.5.27 STATIC
- g. Such entrys MAY contain zero or one [0..1] component
  - a. This component SHALL contain exactly one [1..1] code/@code="67527?2" Neck assessment finding (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain zero or more [0..\*] value with data type CD, where the @code SHALL be selected from ValueSet NeckAssessmentFinding 2.16.840.1.113883.17.3.5.28 STATIC
- h. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "67528?0" *Chest and lungs assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet ChestLungAssessmentFinding 2.16.840.1.113883.17.3.5.29 STATIC
- i. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67529?8" *Heart assessment finding* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet HeartAssessmentFinding 2.16.840.1.113883.17.3.5.30 STATIC
- j. Such entrys MAY contain zero or more [0..\*] component
  - a. Such components **SHALL** contain exactly one [1..1] **code/@code**="67530?6" *Abdomen assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. Such components SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet AbdomenAssessmentFinding 2.16.840.1.113883.17.3.5.31 STATIC
  - c. Such components SHALL contain exactly one [1..1] targetSiteCode, where the @code SHALL be selected from ValueSet AbdominalFindingLocation 2.16.840.1.113883.17.3.5.32 STATIC
- k. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67531?4" *Pelvic and genitourinary assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet PelvisGenitourinaryAssessment 2.16.840.1.113883.17.3.5.33 STATIC
- 1. Such entrys MAY contain zero or more [0..\*] component
  - **a.** Such components **SHALL** contain exactly one [1..1] **code/@code=** "67532?2" *Back and spine assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. Such components SHALL contain exactly one [1..1] targetSiteCode, where the @code SHALL be selected from ValueSet BackSpineFindingLocation 2.16.840.1.113883.17.3.5.35 STATIC
  - c. Such components SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet BackSpineAssessmentFinding 2.16.840.1.113883.17.3.5.34 STATIC
- m. Such entrys MAY contain zero or more [0..\*] component
  - a. Such components **SHALL** contain exactly one [1..1] **code/@code**="67533?0" *Extremities assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

- b. Such components MAY contain exactly one [1..1] targetSiteCode, where the @code SHALL be selected from ValueSet ExtremityFindingLocation 2.16.840.1.113883.17.3.5.37 STATIC
- c. Such components SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet ExtremitiesAssessmentFinding 2.16.840.1.113883.17.3.5.36 STATIC
- n. Such entrys MAY contain zero or more [0..\*] component
  - a. Such components **SHALL** contain exactly one [1..1] **code/@code**="67534?8" *Eye assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** Such components **SHALL** contain exactly one [1..1] **targetSiteCode**, where the @code **SHALL** be selected from ValueSet *EyeFindingLocation* 2.16.840.1.113883.17.3.5.39 **STATIC**
  - c. Such components SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet EyeAssessmentFinding 2.16.840.1.113883.17.3.5.38 STATIC
- o. Such entrys MAY contain zero or one [0..1] component
  - a. This component MAY contain exactly one [1..1] code/@code="67535?5" Mental status assessment (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain at least one [1..\*] value with data type CD, where the @code SHALL be selected from ValueSet MentalStatusFinding 2.16.840.1.113883.17.3.5.84 STATIC
- **p.** Such entrys **MAY** contain zero or one [0..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67536?3" *Neurological status assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain zero or more [0..\*] value with data type CD, where the @code SHALL be selected from ValueSet NeurologicalAssessmentFinding 2.16.840.1.113883.17.3.5.40 STATIC
- **6.** MAY contain zero or one [0..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code=** "67471?3" *Patient Pregnancy* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *Pregnancy* 2.16.840.1.113883.17.3.5.42 **STATIC**
- 7. MAY contain zero or one [0..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code=** "67517?3" *Last oral intake* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type TS
- 8. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="30525?0" Patient age (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type PQ
    - UCUM units SHOULD be 'a'
- **9.** MAY contain zero or one [0..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code=** "67523?1" *Contraindications to thrombolytic use* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This entry **SHALL** contain at least one [1..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ExistenceOfContraindicationsToThrombolyticUse* 2.16.840.1.113883.17.3.5.41 **STATIC**
- 10. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67523?1" Barriers to patient care (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

**b.** This entry **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *BarrierToCare* 2.16.840.1.113883.17.3.5.85 **STATIC** 

**EMS Physical Assessment Section example** 

#### **EMS Procedures Performed Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.21]

- 1. SHALL conform to *Derived CDA Section*
- **2. SHALL** contain exactly one [1..1] **code/@code**="67802?9" *EMS Procedures Performed* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- **4. SHALL** contain exactly one [1..1] **title** = "EMS Procedures Performed"
- 5. SHALL contain zero or more [0..\*] entry
  - a. Such entrys SHALL contain exactly one [1..1] code, where the @code SHOULD be selected from

NEMSIS Trace: EProcedures.03 If EArrest.10 = true, include here as ICD?10 PCS "6A4" For EArrest.03, it is permissible to use NEMSIS value set Cardiopulmonary Resuscitation Type (2.16.840.1.113883.17.3.5.57) 3003001 Attempted Defibrillation = Defibrillation 5A2204Z 3003005 Initiated Chest Compressions: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.113883.17.3.5.57); reader may infer from these values if necessary 3003003 Attempted Ventilation: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.113883.17.3.5.57); reader may infer from these values if necessary 3003007 Not Attempted-Considered Futile = Assistance 5A0; SuccessfulObservation = False; ReasonNotAttempted required 3003009 Not Attempted-DNR Orders = Assistance 5A0; SuccessfulObservation = False; ReasonNotAttempted required 3003011 Not Attempted-Signs of Circulation = Assistance 5A0; SuccessfulObservation = False; ReasonNotAttempted required

**b.** Such entrys **SHALL** contain exactly one [1..1] **effectiveTime** 

NEMSIS Trace: EProcedures.01 goes in effectiveTime.low If an abandoned time is recorded, EArrest.15 goes in effectiveTime.high

- c. Such entrys MAY contain zero or one [0..1] entryRelationship
  - a. This entryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ResusctitationDiscontinueReason* 2.16.840.1.113883.17.3.5.62 **STATIC**
- **d.** Such entrys **MAY** contain zero or one [0..1] **statusCode/@code=** "Aborted" *Aborted* (CodeSystem: 2.16.840.1.113883.5.14 ActStatus)

NEMSIS Trace: EArrest.15

e. Such entrys MAY contain zero or one [0..1] approachSiteCode, where the @code SHALL be selected from ValueSet *IVSite* 2.16.840.1.113883.17.3.5.56 STATIC

NEMSIS Trace: EProcedures.13 Required conditionally if procedure code is intravenous catheterization (E303)

- f. Such entrys **SHALL** contain exactly one [1..1] **entryRelationship** 
  - a. This entryRelationship SHALL contain zero or one [0..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67542?1" *Procedure performed prior to EMS arrival* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
- g. Such entrys SHALL contain exactly one [1..1] entryRelationship

a. This entryRelationship SHALL contain exactly one [1..1] observation

NEMSIS Trace: EProcedures.05

- **a.** This observation **SHALL** contain exactly one [1..1] **code/@code=** "67543?9" *Number of procedure attempts* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type INT

NEMSIS Trace: EProcedures.05

- h. Such entrys SHALL contain exactly one [1..1] entryRelationship
  - a. This entryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67544?7" *Procedure successful indicator* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
- i. Such entrys SHALL contain exactly one [1..1] entryRelationship
  - a. This entryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67545?4" *Procedure complication* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain at least one [1.\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ProcedureComplicationType* 2.16.840.1.113883.17.3.5.58 **STATIC**
- j. Such entrys SHALL contain exactly one [1..1] entryRelationship
  - a. This entryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67546?2" *Procedure patient response* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain zero or more [0..\*] value with data type CD, where the @code SHALL be selected from ValueSet PatientConditionChange 2.16.840.1.113883.17.3.5.59 STATIC
- k. Such entrys SHALL contain exactly one [1..1] eMSProcedurePerformer
  - a. This eMSProcedurePerformer SHALL contain exactly one [1..1] assignedEntity
    - **a.** This assignedEntity **SHALL** contain exactly one [1..1] **code**, where the @code **SHALL** be selected from ValueSet *ProviderRole* 2.16.840.1.113883.17.3.5.46 **STATIC**

NEMSIS Trace: EProcedures.10

**b.** This assignedEntity **SHALL** contain exactly one [1..1] **id** 

NEMSIS Trace: EProcedures.09, ID equal to the EMS professional's agency ID number

1. Such entrys MAY contain zero or one [0..1] entryRelationship

NEMSIS Trace: EAirway.04; required if procedure code is airway placement, i.e., OCHY7BZ

- a. This entryRelationship Contains exactly one [1..1] observation
  - a. This observation **SHALL** contain exactly one [1..1] **code/@code=**"TBD" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This observation SHALL contain exactly one [1..1] methodCode, where the @code SHALL be selected from ValueSet AirwayDeviceConfirmationMethod 2.16.840.1.113883.17.3.5.60 STATIC
  - **c.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
  - d. This observation SHALL contain exactly one [1..1] effectiveTime

NEMSIS Trace: EAirway.02. If the confirmation is negated, this SHALL be "NA."

e. This observation SHALL contain exactly one [1..1] eMSAirwayDeviceParticipant

- a. This eMSAirwayDeviceParticipant **SHALL** contain exactly one [1..1] eMSAirwayDeviceParticipantRole
  - a. This eMSAirwayDeviceParticipantRole SHALL contain exactly one [1..1] playingDevice
    - a. This playing Device SHALL contain zero or one [0..1] code, where the @code SHALL be selected from ValueSet AirwayDeviceType 2.16.840.1.113883.17.3.5.61 STATIC

NEMSIS Trace: EAirway.04; required if procedure code is airway placement, i.e., 0CHY7BZ

- m. Such entrys MAY contain zero or one [0..1] eMSAirwayDeviceParticipant
  - a. This eMSAirwayDeviceParticipant SHALL contain exactly one [1..1] eMSAirwayDeviceParticipantRole
    - a. This eMSAirwayDeviceParticipantRole SHALL contain exactly one [1..1] playingDevice
      - a. This playing Device SHALL contain zero or one [0..1] code, where the @code SHALL be selected from ValueSet AirwayDeviceType 2.16.840.1.113883.17.3.5.61 STATIC

**EMS Procedures Performed Section example** 

#### **EMS Protocol Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.7]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain zero or one [0..1] **code/@code**="67537?1" *EMS Protocol* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. Contains zero or one [0..1] text
- **4.** Contains zero or one [0..1] **title**
- 5. SHALL contain exactly one [1..1] eMSProtocolRelationship
  - a. This eMSProtocolRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67537?1" *EMS protocol* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *Protocol* 2.16.840.1.113883.17.3.5.73 **STATIC**
- 6. SHALL contain exactly one [1..1] eMSProtocolAgeCategoryRelationship
  - a. This eMSProtocolAgeCategoryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67538?9" *EMS Protocol age category* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet ProtocolAgeCategory 2.16.840.1.113883.17.3.5.86
      STATIC
- 7. SHALL contain exactly one [1..1] eMSCandidatePatientRegistryRelationship
  - a. This eMSCandidatePatientRegistryRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67553?8" *EMS candidate patient registry* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *RegistryType* 2.16.840.1.113883.17.3.5.74 **STATIC**

#### **EMS Protocol Section example**

## **EMS** Response

[Section: templateId 2.16.840.1.113883.17.3.10.1.3]

- 1. SHALL conform to Derived CDA Section
- **2. SHALL** contain exactly one [1..1] **code/@code**="67664?3" *EMS Response* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- **4. SHALL** contain exactly one [1..1] **title** = "EMS Response"
- 5. SHALL contain exactly one [1..1] eMSDelayRelationship
  - a. This eMSDelayRelationship SHALL contain exactly one [1..1] organizer
    - a. This organizer SHALL contain exactly one [1..1] eMSDispatchDelayRelationship
      - a. This eMSDispatchDelayRelationship SHALL contain exactly one [1..1] observation
        - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67480?4" *Dispatch delay* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet <code>DispatchDelayType</code> 2.16.840.1.113883.17.3.5.50 **STATIC**
    - b. This organizer SHALL contain exactly one [1..1] eMSResponseDelayRelationship
      - a. This eMSResponseDelayRelationship SHALL contain exactly one [1..1] observation
        - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67557?9" *Response delay* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ResponseDelayType* 2.16.840.1.113883.17.3.5.51 **STATIC**
    - c. This organizer SHALL contain exactly one [1..1] eMSSceneDelayRelationship
      - a. This eMSSceneDelayRelationship SHALL contain exactly one [1..1] observation
        - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67558?7" *Scene delay* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet SceneDelayType 2.16.840.1.113883.17.3.5.52 STATIC
    - d. This organizer SHALL contain exactly one [1..1] eMSTransportDelayRelationship
      - a. This eMSTransportDelayRelationship SHALL contain exactly one [1..1] observation
        - a. This observation SHALL contain exactly one [1..1] code/@code="67559?5" Transport delay (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *TransportDelayType* 2.16.840.1.113883.17.3.5.53 **STATIC**
    - e. This organizer SHALL contain exactly one [1..1] eMSTurnaoundDelayRelationship
      - a. This eMSTurnaoundDelayRelationship SHALL contain exactly one [1..1] observation
        - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67560?3" *Turnaround delay* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *TurnAroundDelayType* 2.16.840.1.113883.17.3.5.54 **STATIC**

- 6. MAY contain zero or one [0..1] eMSDispatchLocationRelationship
  - a.
- 7. MAY contain zero or one [0..1] eMSResponseOdometerReadingsRelationship
  - a. This eMSResponseOdometerReadingsRelationship SHALL contain zero or one [0..1] organizer
    - a. This organizer MAY contain zero or one [0..1]
       eMSResponseBeginningOdometerReadingRelationship
      - a. This eMSResponseBeginningOdometerReadingRelationship **SHALL** contain exactly one [1..1] observation
        - **a.** This observation **SHALL** contain exactly one [1..1] **code/@code=** "67484?6" *EMS Response odometer beginning reading* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
        - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type PQ

UCUM units SHOULD be "[mi\_i]"

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

#### eMSResponseOnSceneOdometerReadingRelationship

- a. This eMSResponseOnSceneOdometerReadingRelationship SHALL contain exactly one [1..1] observation
  - a. This observation **SHALL** contain exactly one [1..1] **code/@code=** "67485?3" *EMS Response odometer on-scene reading* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type PQ

UCUM units SHOULD be "[mi\_i]"

**c.** This organizer **MAY** contain zero or one [0..1]

#### eMSResponseDestinationOdometerReadingRelationship

- a. This eMSResponseDestinationOdometerReadingRelationship SHALL contain exactly one [1..1] observation
  - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67486?1" *EMS Response odometer destination reading* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type PQ

UCUM units SHOULD be "[mi\_i]"

- 8. SHALL contain exactly one [1..1] eMSResponseModeToSceneRelationship
  - a. This eMSResponseModeToSceneRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67482?0" *Response mode to scene* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *TransportationMode* 2.16.840.1.113883.17.3.5.66 **STATIC**

EMS Response example

#### **EMS Scene Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.8]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67665?0" *EMS Scene* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- **4. SHALL** contain exactly one [1..1] **title** = "EMS Scene"

- 5. SHALL contain exactly one [1..1] eMSFirstUnitIndicatorRelationship
  - a. This eMSFirstUnitIndicatorRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67665?0" *EMS reporter is first unit on scene* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL
- 6. MAY contain zero or one [0..1] eMSFirstUnitOnSceneRelationship
  - a. This eMSFirstUnitOnSceneRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67481?2" *Name of first unit on scene* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type ST
- 7. MAY contain zero or one [0..1] eMSScenePatientCountRelationship
  - a. This eMSScenePatientCountRelationship SHALL contain exactly one [1..1] observation
    - a. This observation **SHALL** contain exactly one [1..1] **code/@code**="67489?5" *EMS Count of patients at scene* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type INT
- 8. MAY contain zero or one [0..1] eMSMassCasualtyIndicatorRelationship
  - a. This eMSMassCasualtyIndicatorRelationship SHALL contain exactly one [1..1] observation
    - a. This observation SHALL contain exactly one [1..1] code
    - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type BL

**EMS Scene Section example** 

#### **EMS Situation Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.9]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67666?8" *EMS Situation* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- 3. SHALL contain exactly one [1..1] text
- 4. SHALL contain exactly one [1..1] title
- **5.** MAY contain zero or more [0..\*] entry
  - a. Such entrys SHALL contain exactly one [1..1] code/@code="10154?3" EMS complaint (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** Such entrys **MAY** contain zero or one [0..1] **value** with data type ST
  - c. Such entrys MAY contain zero or one [0..1] entryRelationship
    - a. This entryRelationship Contains exactly one [1..1] observation
      - a. This observation SHALL contain exactly one [1..1] code/@code="67491?1" Complaint duration (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
      - **b.** This observation **SHALL** contain exactly one [1..1] **value** with data type PQ

Units SHALL be selected from UCUM time units (i.e., s, min, h, d, wk, mo, a)

- **d.** Such entrys **MAY** contain zero or one [0..1] **entryRelationship** 
  - a. This entryRelationship Contains at least one [1..\*] observation
    - a. Such observations **SHALL** contain exactly one [1..1] **code**, where the @code **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** Such observations **SHALL** contain exactly one [1..1] **value** with data type CD

e. Such entrys **SHOULD** contain exactly one [1..1] **targetSiteCode**, where the @code **SHALL** be selected from ValueSet *AnatomicLocation* 2.16.840.1.113883.17.3.5.76 **STATIC** 

NEMSIS Trace: ESituation.07 Complaint site is required if complaint is type "Chief complaint"

f. Such entrys SHOULD contain zero or one [0..1] entryRelationship

The organ system is required if the complaint is of type "Chief complaint"

- a. This entryRelationship SHALL contain exactly one [1..1] observation
  - a. This observation SHALL contain exactly one [1..1] code/@code="69468?7" Organ system (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This observation SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet OrganSystem 2.16.840.1.113883.17.3.5.77 STATIC

The organ system is required if the complaint is of type "Chief complaint"

- **6. SHALL** contain exactly one [1..1] **entry** 
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**="TBD" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type TS
- 7. SHALL contain exactly one [1..1] entry
  - **a.** This entry **SHALL** contain exactly one [1..1] **code/@code**="69467?9" *Possible injury* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type BL
- 8. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67774?0" EMS Primary Symptom (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This entry SHALL contain exactly one [1..1] value with data type CD/@code="ADD ICD 10"
- 9. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67493?7" Initial Patient Acuity (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *PatientStatus* 2.16.840.1.113883.17.3.5.78 **STATIC**
- 10. Contains exactly one [1..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**="TBD" (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type TS
- 11. SHALL contain exactly one [1..1] entry
  - a. This entry SHALL contain exactly one [1..1] code/@code="67492?9" Provider Primary Impression (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain exactly one [1..1] **value** with data type CD/@code="ADD ICD10 CM"
- **12. MAY** contain zero or one [0..1] **entry** 
  - a. This entry SHALL contain exactly one [1..1] code/@code="67776?5" *Other symptoms* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **b.** This entry **SHALL** contain zero or more [0..\*] **value** with data type CD/@code="ADD\_ICD-10\_CM"
- 13. SHALL contain exactly one [1..1] entry
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**="69542-9" *Provider Secondary Impressions* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry **SHALL** contain at least one [1..\*] **value** with data type CD/@code="ADD\_ICD\_10\_CM"

#### **EMS Situation Section example**

#### **EMS Social History**

[Section: templateId 2.16.840.1.113883.17.3.10.1.22]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67843?3" *EMS Social History* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3. SHOULD** contain zero or one [0..1] **title** = "EMS Social History"
- **4. SHALL** contain exactly one [1..1] **entry** 
  - a. This entry **SHALL** contain exactly one [1..1] **code/@code**="69757?3" *Indications of drug or alcohol use by the patient* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This entry Contains zero or more [0..\*] **value** with data type CD
- **5.** MAY contain zero or more [0..\*] **entry** 
  - a. Such entrys SHALL contain exactly one [1..1] code/@code="67669?2" Alcohol drug use (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** Such entrys **SHALL** contain zero or more [0..\*] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *AlcoholDrugUseIndicator* 2.16.840.1.113883.17.3.5.18 **STATIC**

**EMS Social History example** 

#### **EMS Vital Signs Section**

[Section: templateId 2.16.840.1.113883.17.3.10.1.23]

- 1. SHALL conform to Derived CDA Section
- 2. SHALL contain exactly one [1..1] code/@code="67801?1" EMS Vital Signs (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
- **3. SHOULD** contain exactly one [1..1] **title** = "EMS Vital Signs"
- 4. SHALL contain at least one [1..\*] entry
  - a. Such entrys SHALL contain exactly one [1..1] effectiveTime

NEMSIS Trace: EVitals.01

- b. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67518?1" *Obtained prior to units EMS care* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component Contains zero or more [0..\*] **value** with data type BL
- c. Such entrys **SHALL** contain exactly one [1..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67519?9" *Cardiac rhythm* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **methodCode**, where the @code **SHALL** be selected from ValueSet *MethodOfECGInterpretation* 2.16.840.1.113883.17.3.5.20 **STATIC**

NEMSIS Trace: EVitals.05

c. This component **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet *ECGType* 2.16.840.1.113883.17.3.5.19 **STATIC** 

NEMSIS Trace: EVitals.03

- d. Such entrys **SHALL** contain exactly one [1..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="8480?6" *Intravascular systolic* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type PQ

*UCUM units SHOULD be "mm[Hg]".* 

- e. Such entrys MAY contain zero or one [0..1] component
  - a. This component SHALL contain exactly one [1..1] code/@code="8462-4" Intravascular diastolic (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type PQ *UCUM units SHOULD be "mm[Hg]"*.
- f. Such entrys SHOULD contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "8867?4" *Heart rate* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain zero or more [0..\*] **value** with data type PQ *UCUM units SHOULD be "/min"*.
- g. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "9279?1" *Breaths* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type PQ *UCUM units SHOULD be "/min"*.
- h. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "8310?5" *Body temperature* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type PQ *UCUM units SHOULD be "Cel"*.
- i. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="2710?2" Oxygen saturation (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value**

UCUM units will typically be "%".

- j. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="19889?5" *Carbon dioxide/Gas.total.at end expiration* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - $\boldsymbol{b.}$  This component  $\boldsymbol{SHALL}$  contain exactly one [1..1]  $\boldsymbol{value}$

UCUM units will typically be "%".

- k. Such entrys MAY contain zero or one [0..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="19911?7" *Diffusion capacity.carbon monoxide* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain zero or more [0..\*] **value** with data type PQ

UCUM units will typically be "[ppm]".

- 1. Such entrys **SHALL** contain exactly one [1..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="2339?0" *Glucose* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain zero or more [0..\*] **value** with data type PQ

UCUM units will typically be "mg/dl".

- m. Such entrys **SHALL** contain exactly one [1..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "67775?7" *Level of responsiveness* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

- b. This component SHALL contain exactly one [1..1] value with data type CD, where the @code SHALL be selected from ValueSet LevelOfResponsiveness 2.16.840.1.113883.17.3.5.21 STATIC
- n. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="56840?2" *Pain severity verbal numeric scale* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component Contains zero or more [0..\*] value with data type INT

An ordinal value between 0 and 10, inclusive. There are three scales, but the values are equivalent.

- o. Such entrys SHALL contain exactly one [1..1] component
  - a. This component **SHALL** contain exactly one [1..1] **code/@code**="67520?7" *Stroke scale overall interpretation* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type CD, where the @code **SHALL** be selected from ValueSet **STATIC**

NEMSIS Trace: EVitals.29

c. This component **SHALL** contain exactly one [1..1] **methodCode**, where the @code **SHALL** be selected from ValueSet *StrokeScale* 2.16.840.1.113883.17.3.5.88 **STATIC** 

NEMSIS Trace: EVitals.30

- p. Such entrys SHALL contain exactly one [1..1] component
  - a. This component SHALL contain exactly one [1..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "9267?6" *Glasgow coma score.eye opening* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type INT
  - b. This component SHALL contain exactly one [1..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "9268?4" *Glasgow coma score.motor* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component **SHALL** contain zero or more [0..\*] **value**
  - c. This component MAY contain zero or one [0..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code**="55285?1" *Glasgow coma score special circumstances* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component **MAY** contain zero or more [0..\*] **value** with data type CD
  - d. This component SHOULD contain zero or one [0..1] component
    - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "9269?2" *Glasgow coma score.total* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
    - **b.** This component **SHALL** contain exactly one [1..1] **value** with data type INT

Integer value equal to the sum of verbal, motor, and eye

- e. This component **SHALL** contain exactly one [1..1] **component** 
  - a. This component **SHALL** contain exactly one [1..1] **code/@code=** "9270?0" *Glasgow coma score.verbal* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
  - b. This component SHALL contain exactly one [1..1] value

#### **EMS Vital Signs Section example**

# Chapter

4

## **CLINICAL STATEMENT TEMPLATES**

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

| 44   Implementation Guide for CDA Release 2   CLINICAL STATEMENT TEMPLATES |
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# Chapter

5

## **OTHER CLASSES**

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

## Chapter



### **VALUE SETS**

#### **Topics:**

- AED Use Prior To EMS Arrival
- Abdomen Assessment Finding
- Abdominal Finding Location
- Advance Directive Type
- Airbag Status
- Airway Device Confirmation Method
- Airway Device Type
- Alcohol Drug Use Indicator
- Anatomic Location
- Back Spine Assessment Finding
- Back Spine Finding Location
- Barrier To Care
- Cardiac Arrest Cause
- Cardiac Arrest Timing
- Cardiac Arrest Witness Role
- Cardiac Rhythm Reading
- Cardinality
- Cardiopulmonary Resuscitation Type
- Chest Lung Assessment Finding
- Complaint
- Current Medication Administration Route
- Destination Choice Reason
- Destination Prearrival Activation
- Destination Type
- Disaster Type
- Dispatch Delay Type
- ECG Type
- EMD Performed
- EMS Billing Condition
- EMS Condition Code
- EMS Level Of Service
- Environmental Allergy Type

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

- Existence Of Contraindications
  To Thrombolytic Use
- Extremities Assessment Finding
- Extremity Finding Location
- Eye Assessment Finding
- Eye Finding Location
- Face Assessment Finding
- First Monitored Rhythm
- Glasgow Coma Score Qualifier
- Head Assessment Finding
- Heart Assessment Finding
- IV Site
- Incident Outcome
- Injury Risk Factor
- Length Based Tape Measure
- Level Of Responsiveness
- Mechanism Of Injury
- Medication Administered Route
- Medication Authorization Type
- Medication Complication
- Medication Not Given Reason
- Mental Status Finding
- Method Of ECG Interpretation
- Neck Assessment Finding
- Neurological Assessment Finding
- Organ System
- Patient Condition Change
- Patient Status
- Pelvis Genitourinary Assessment
- Pregnancy
- Prior Care Provider Role
- Procedure Complication Type
- Protocol
- Protocol Age Category
- Provider Adverse Event Type
- Provider Response Role
- Provider Role
- Provider Role Level
- Registry Type
- Response Delay Type
- Resuscitation Not Attempted Reason
- Resusctitation Discontinue Reason
- Return Of Spontaneous Circulation

- Safety Equipment Type
- Scene Delay Type
- Service Level
- Service Type
- Skin Assessment
- Stroke Scale
- Transport Delay Type
- Transport Method
- Transport Mode
- Transportation Mode
- Trauma Center Criteria
- Turn Around Delay Type
- Unit Response Role
- Vehicle Impact Area
- Vehicle Passenger Location

#### **AED Use Prior To EMS Arrival**

| Value Set | AEDUsePriorToEMSArrival - 2.16.840.1.113883.17.3.5.13 |
|-----------|---|
|-----------|---|

#### **Abdomen Assessment Finding**

#### **Abdominal Finding Location**

| Value Set | AbdominalFindingLocation - 2.16.840.1.113883.17.3.5.32 |  |
|-----------|--|--|
|-----------|--|--|

### **Advance Directive Type**

| Value Set | AdvanceDirectiveType - 2.16.840.1.113883.17.3.5.63 |  |
|-----------|--|--|
|-----------|--|--|

### **Airbag Status**

| Value Set AirbagStatus - 2.16.840.1.113883.17.3.5.8 | Value Set | AirbagStatus - 2.16.840.1.113883.17.3.5.8 |
|---|-----------|---|
|---|-----------|---|

### **Airway Device Confirmation Method**

| Value Set | AirwayDeviceConfirmationMethod - 2.16.840.1.113883.17.3.5.60 |  |
|-----------|--|--|
|-----------|--|--|

### **Airway Device Type**

| Value Set AirwayDeviceType - 2.16.840.1.113883.17.3.5.61 |  |
|--|--|
|--|--|

### **Alcohol Drug Use Indicator**

|  | Value Set | AlcoholDrugUseIndicator - 2.16.840.1.113883.17.3.5.18 |  |
|--|-----------|---|--|
|--|-----------|---|--|

#### **Anatomic Location**

| Value Set | AnatomicLocation - 2.16.840.1.113883.17.3.5.76 |
|-----------|--|
|-----------|--|

### **Back Spine Assessment Finding**

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### **Back Spine Finding Location**

| Value Set | BackSpineFindingLocation - 2.16.840.1.113883.17.3.5.35 |  |
|-----------|--|--|
|-----------|--|--|

#### **Barrier To Care**

| Value Set BarrierToCare - 2.16.840.1.113883.17.3.5.85 |
|---|
|---|

#### **Cardiac Arrest Cause**

| Value Set | CardiacArrestCause - 2.16.840.1.113883.17.3.5.10 |  |
|-----------|--|--|
|-----------|--|--|

## **Cardiac Arrest Timing**

| Value Set | CardiacArrestTiming - 2.16.840.1.113883.17.3.5.91 |  |
|-----------|---|--|
|-----------|---|--|

#### **Cardiac Arrest Witness Role**

| Value Set CardiacArrestWitnessRole - 2.16.840.1.113883.17.3.5.11 |  |
|--|--|
|--|--|

### **Cardiac Rhythm Reading**

|  | Value Set | CardiacRhythmReading - 2.16.840.1.113883.17.3.5.16 |  |
|--|-----------|--|--|
|--|-----------|--|--|

### **Cardinality**

| Value Set Cardinality - 2.16.840.1.113883.17.3.5.75 |
|---|
|---|

### **Cardiopulmonary Resuscitation Type**

| Value Set | CardiopulmonaryResuscitationType - 2.16.840.1.113883.17.3.5.57 |  |
|-----------|--|--|
|-----------|--|--|

### **Chest Lung Assessment Finding**

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### Complaint

| Value Set | Complaint - 2.16.840.1.113883.17.3.5.49 |  |
|-----------|---|--|
|           |   |  |

#### **Current Medication Administration Route**

| Value Set | CurrentMedicationAdministrationRoute - 2.16.840.1.113883.17.3.5.17 |  |
|-----------|--|--|
|-----------|--|--|

#### **Destination Choice Reason**

#### **Destination Prearrival Activation**

| Value Set | DestinationPrearrivalActivation - 2.16.840.1.113883.17.3.5.87 |  |
|-----------|---|--|
|           |   |  |

### **Destination Type**

| Value Set DestinationType - 2.16.840.1.113883.17.3.5.69 | Value Set |
|---|-----------|
|---|-----------|

### **Disaster Type**

| Value Set | DisasterType - 2.16.840.1.113883.17.3.5.9 |
|-----------|---|
|-----------|---|

### **Dispatch Delay Type**

| Value Set | DispatchDelayType - 2.16.840.1.113883.17.3.5.50 |  |
|-----------|---|--|

#### **ECG Type**

| Value Set | ECGType - 2.16.840.1.113883.17.3.5.19 |  |
|-----------|---------------------------------------|--|
|-----------|---------------------------------------|--|

#### **EMD Performed**

| Value Set | EMDPerformed - 2.16.840.1.113883.17.3.5.48 |  |
|-----------|--|--|
|           |  |  |

### **EMS Billing Condition**

| Value Set   | EMSBillingCondition - 2.16.840.1.113883.17.3.5.71 |
|-------------|---|
| Code System | LOINC - 2.16.840.1.113883.6.1                     |

#### **EMS Condition Code**

| Value Set | EMSConditionCode - 2.16.840.1.113883.17.3.5.71 |  |
|-----------|--|--|
|           |  |  |

#### **EMS Level Of Service**

| Value Set   | EMSLevelOfService - 2.16.840.1.113883.17.3.5.70 |
|-------------|---|
| Code System | LOINC - 2.16.840.1.113883.6.1                   |

### **Environmental Allergy Type**

| Value Set | EnvironmentalAllergyType - 2.16.840.1.113883.17.3.5.83 |  |
|-----------|--|--|
|           | <i>5.</i> .1   |  |

### **Existence Of Contraindications To Thrombolytic Use**

### **Extremities Assessment Finding**

| Value Set | ExtremitiesAssessmentFinding - 2.16.840.1.113883.17.3.5.36 |  |
|-----------|--|--|
|-----------|--|--|

### **Extremity Finding Location**

| Value Set | ExtremityFindingLocation - 2.16.840.1.113883.17.3.5.37 |  |
|-----------|--|--|
|-----------|--|--|

### **Eye Assessment Finding**

| Value Set | EyeAssessmentFinding - 2.16.840.1.113883.17.3.5.38 |  |
|-----------|--|--|
|-----------|--|--|

### **Eye Finding Location**

| Value Set | EyeFindingLocation - 2.16.840.1.113883.17.3.5.39 |
|-----------|--|
|-----------|--|

### **Face Assessment Finding**

| Value Set | FaceAssessmentFinding - 2.16.840.1.113883.17.3.5.27 |  |
|-----------|---|--|
|-----------|---|--|

### First Monitored Rhythm

| Value Set | FirstMonitoredRhythm - 2.16.840.1.113883.17.3.5.14 |
|-----------|--|
|-----------|--|

#### **Glasgow Coma Score Qualifier**

| Value Set | GlasgowComaScoreQualifier - 2.16.840.1.113883.17.3.5.89 |  |
|-----------|---|--|
|-----------|---|--|

#### **Head Assessment Finding**

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### **Heart Assessment Finding**

| Value Set HeartAssessmentFinding - 2.16.840.1.113883.17.3.5.30 | Value Set | HeartAssessmentFinding - 2.16.840.1.113883.17.3.5.30 |
|--|-----------|--|
|--|-----------|--|

#### **IV Site**

| Value Set 1VSite - 2.16.840.1.113883.17.3.5.56 |  | Value Set | IVSite - 2.16.840.1.113883.17.3.5.56 |  |
|--|--|-----------|--------------------------------------|--|
|--|--|-----------|--------------------------------------|--|

#### **Incident Outcome**

| Value Set | IncidentOutcome - 2.16.840.1.113883.17.3.5.64 |  |
|-----------|---|--|
|-----------|---|--|

### **Injury Risk Factor**

| Value Set InjuryRiskFactor - 2.16.840.1.113883.17.3.5.4 |
|---|
|---|

### **Length Based Tape Measure**

| Value Set  | LengthBasedTapeMeasure - 2.16.840.1.113883.17.3.5.24   |
|------------|--|
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### **Level Of Responsiveness**

| Value Set | LevelOfResponsiveness - 2.16.840.1.113883.17.3.5.21 |
|-----------|---|
|-----------|---|

### **Mechanism Of Injury**

| Value Set | MechanismOfInjury - 2.16.840.1.113883.17.3.5.1 |  |
|-----------|--|--|
|           | * *  |  |

#### **Medication Administered Route**

| Value Set | MedicationAdministeredRoute - 2.16.840.1.113883.17.3.5.43 |  |
|-----------|---|--|
|           |   |  |

#### **Medication Authorization Type**

|  | Value Set | MedicationAuthorizationType - 2.16.840.1.113883.17.3.5.47 |  |
|--|-----------|---|--|
|--|-----------|---|--|

### **Medication Complication**

| Value Set | MedicationComplication - 2.16.840.1.113883.17.3.5.45 |  |
|-----------|--|--|
|           |  |  |

#### **Medication Not Given Reason**

| Value Set | MedicationNotGivenReason - 2.16.840.1.113883.17.3.5.92 |  |
|-----------|--|--|
|-----------|--|--|

### **Mental Status Finding**

| Value Set MentalStatusFinding - 2.16.840.1.113883.17.3.5.84 |  |
|---|--|
|---|--|

### **Method Of ECG Interpretation**

| Value Set | MethodOfECGInterpretation - 2.16.840.1.113883.17.3.5.20 |  |
|-----------|---|--|
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### **Neck Assessment Finding**

| Value Set | NeckAssessmentFinding - 2.16.840.1.113883.17.3.5.28 |  |
|-----------|---|--|
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### **Neurological Assessment Finding**

| Value Set | NeurologicalAssessmentFinding - 2.16.840.1.113883.17.3.5.40 |  |
|-----------|---|--|
|-----------|---|--|

### **Organ System**

| Value Set OrganSystem - 2.16.840.1.113883.17.3.5.7/ | Value Set | OrganSystem - 2.16.840.1.113883.17.3.5.77 |  |
|---|-----------|---|--|
|---|-----------|---|--|

### **Patient Condition Change**

| Value Set | PatientConditionChange - 2.16.840.1.113883.17.3.5.59 |  |
|-----------|--|--|
|-----------|--|--|

#### **Patient Status**

| Value Set | PatientStatus - 2.16.840.1.113883.17.3.5.78 |  |
|-----------|---|--|
|-----------|---|--|

#### **Pelvis Genitourinary Assessment**

| Value Set PelvisGenitourinaryAssessment - 2.16.840.1.113883.17.3.5.33 |
|---|
|---|

#### **Pregnancy**

| Value Set | Pregnancy - 2.16.840.1.113883.17.3.5.42 |
|-----------|---|
|-----------|---|

#### **Prior Care Provider Role**

| Value Set |
|-----------|
|-----------|

### **Procedure Complication Type**

| Value Set ProcedureComplicationType - 2.16.840.1.113883.17.3.5.58 |  |
|---|--|
|---|--|

#### **Protocol**

| Value Set Protocol - 2.16.840.1.113883.17.3.5.73 |  |
|--|--|
|--|--|

### **Protocol Age Category**

| Value Set ProtocolAgeCategory - 2.16.840.1.113883.17.3.5.86 |  |
|---|--|
|---|--|

## **Provider Adverse Event Type**

| Value Set | ProviderAdverseEventType - 2.16.840.1.113883.17.3.5.72 |
|-----------|--|
|-----------|--|

### **Provider Response Role**

| Value Set ProviderResponseRole - 2.16.840.1.113883.17.3.5.80 |
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|--|

#### **Provider Role**

|           | ,  |  |
|-----------|--|--|
| Value Set | ProviderRole - 2.16.840.1.113883.17.3.5.46 |  |

### **Provider Role Level**

| Value Set ProviderRoleLevel - 2.16.840.1.113883.17.3.5.81 | 6.840.1.113883.17.3.5.81 |
|---|--------------------------|
|---|--------------------------|

#### **Registry Type**

| Value Set | RegistryType - 2.16.840.1.113883.17.3.5.74 |  |
|-----------|--|--|
|-----------|--|--|

### **Response Delay Type**

### **Resuscitation Not Attempted Reason**

| Value Set ResuscitationNotAttemptedReason - 2.16.840.1.113883.17.3.5.90 |
|---|
|---|

#### **Resusctitation Discontinue Reason**

| Value Set | ResusctitationDiscontinueReason - 2.16.840.1.113883.17.3.5.62 |  |
|-----------|---|--|
| value Set | ResuscitationDiscontinueReason - 2.10.840.1.113883.17.3.3.02  |  |

### **Return Of Spontaneous Circulation**

| Value Set | ReturnOfSpontaneousCirculation - 2.16.840.1.113883.17.3.5.15 |  |
|-----------|--|--|
|-----------|--|--|

### **Safety Equipment Type**

| Value Set SafetyEquipmentType - 2.16.840.1.113883.17.3.5.7 |  |
|--|--|
|--|--|

### **Scene Delay Type**

| Value Set SceneDelayType - 2.16.840.1.113883.17.3.5.52 |  |  |
|--|--|--|
|--|--|--|

#### **Service Level**

| Value Set | ServiceLevel - 2.16.840.1.113883.17.3.5.70 |  |
|-----------|--|--|
|-----------|--|--|

### **Service Type**

| Value Set | ServiceType - 2.16.840.1.113883.17.3.5.79 |  |
|-----------|---|--|

#### **Skin Assessment**

#### **Stroke Scale**

| Value Set StrokeScale - 2.16.840.1.113883.17.3.5.88 |
|---|
|---|

#### **Transport Delay Type**

| ſ   | Value Set | TransportDelayType - 2.16.840.1.113883.17.3.5.53 |  |
|-----|-----------|--|--|
| - 1 |           | * **   |  |

### **Transport Method**

| Value Set TransportMethod - 2. | 16.840.1.113883.17.3.5.65 |
|--------------------------------|---------------------------|
|--------------------------------|---------------------------|

### **Transport Mode**

| Value Set | TransportMode - 2.16.840.1.113883.17.3.5.66 |  |
|-----------|---|--|
|           |   |  |

### **Transportation Mode**

| Value Set | TransportationMode - 2.16.840.1.113883.17.3.5.66 |  |
|-----------|--|--|
|-----------|--|--|

#### **Trauma Center Criteria**

| Value Set | TraumaCenterCriteria - 2.16.840.1.113883.17.3.5.3 |  |
|-----------|---|--|
|           |   |  |

### **Turn Around Delay Type**

|  | Value Set | TurnAroundDelayType - 2.16.840.1.113883.17.3.5.54 |  |
|--|-----------|---|--|
|--|-----------|---|--|

### **Unit Response Role**

| Value Set | UnitResponseRole - 2.16.840.1.113883.17.3.5.82 |  |
|-----------|--|--|
|-----------|--|--|

### **Vehicle Impact Area**

| Value Set | VehicleImpactArea - 2.16.840.1.113883.17.3.5.5 |  |
|-----------|--|--|

## **Vehicle Passenger Location**

Value Set VehiclePassengerLocation - 2.16.840.1.113883.17.3.5.6

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