



Emergency Medical Services Patient Care Report

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HL7 Normative Ballot

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Patient Care Work Group

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Chapter 1

INTRODUCTION

Topics:

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- [Audience](#)
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This document is intended to guide software developers in generating CDA-compliant XML patient care reports, also known as run reports, from EMS agency crews to emergency departments and other interested parties. It consists of a set of constraints on the HL7 CDA R2 model mapped to the National EMS Information System (NEMSIS) data elements.

Clinical Document Architecture (CDA) is a standard for information exchange. It is based on the HL7 Reference Information Model, but it constrains that model to a specific set of patterns. This document adds further constraints, so that it specifies not just a generic clinical document, but an Emergency Medical Services (EMS) Patient Care Report—a record of an Emergency Medical Services encounter with a patient.

Further information about CDA is available at HL7.org.

This guide constrains the NEMSIS data set version 3.4.0 to the HL7 CDA R2 document format. NEMSIS is maintained by the NEMSIS Technical Assistance Center, a US organization funded by the National Highway Transportation Safety Administration, the Centers for Disease Control, and the Health Resources and Services Administration at the University of Utah. The NEMSIS data dictionary is available at www.nemsis.org.

Overview

This implementation guide provides constraints to allow implementers to develop CDA-compliant documents that support a common set of information in the emergency medical services (EMS) domain.

This release covers the provision of information from an EMS crew to a receiving hospital or emergency department. A future release will cover the entire EMS dataset; this document will be a template within that specification.

Audience

The audience for this document is software developers and development organizations who wish to produce or receive EMS patient care reports.

Software developers should use the CDA XML schema to guide their production of EMS patient care reports, subject to the constraints documented in this guide. Mappings of NEMSIS elements to the CDA schema are included in this document, in the "NEMSIS trace" comment. Coded elements should use the vocabularies referred to in the constraints.

The CDA schema is published by Health Level 7, and is available at <http://www.hl7.org/implement/standards>.

This guide defines the information payload only. Implementers are encouraged to coordinate with one another by using the IHE framework (available at <http://www.ihe.net>) to address expected capabilities of participating systems, including security and audit considerations.

Scope

The NEMSIS data specification content has been developed over the past 20 years by a variety of partners. Professional organizations contributing to the content include American Ambulance Association (AAA), American College of Emergency Physicians (ACEP), American College of Surgeons: Committee on Trauma (ACS-COT), American Heart Association (AHA), Emergency Medical Services Outcomes Project (EMSOP), International Association of Fire Chiefs (IAFC), International Association of Fire Fighters (IAFF), National Academy of Emergency Medical Dispatch (NAEMD), National Association of Emergency Medical Technicians (NAEMT), National Association of EMS Physicians (NAEMSP), National Association of State EMS Officers (NASEMSO), National EMS Management Association (NEMSMA, formerly NAEMSQP), and the National Emergency Number Association (NENA). Supporting federal partners include National Highway Traffic Safety Administration (NHTSA), Health Resources and Services Administration (HRSA), Emergency Medical Services for Children Program (EMSC), EMSC National Resource Center (NRC), EMSC National EMSC Data Analysis Resource Center (NEDARC), Centers for Disease Control and Prevention (CDC), Federal Emergency Management Administration (FEMA), and HRSA's Office of Rural Health Policy (ORHP). NEMSIS has been adopted in 46 states and territories and implemented by scores of software providers.

The NEMSIS data set supports many uses, including the transfer of patient care reports from EMS crews to emergency departments, the prepopulation of hospital electronic health records, identification of trauma registry candidates, and preparation of data for submission to NEMSIS for research. The current specification is designed for the first of these use cases.

Implementers may generate the same patient care reports that they generate today and attach them under the CDA header in "level one" documents, or they may populate the structured sections as specified herein.

A separate effort to develop an implementation guide is the Emergency Transfer of Care specified by Integrating the Healthcare Enterprise (IHE) as the level two template 1.3.6.1.4.1.19376.1.5.3.1.1.19.1. These templates may be harmonized in the future; at this point, they are distinct.

Approach

We first transformed the NEMESIS specification into the Emergency Medical Services Domain Analysis Model (EMS DAM), initially balloted through HL7 in May of 2010 and finalized for the release in May 2011. The static part of the analysis model was then constrained to the HL7 Reference Information Model (RIM) in a Domain Information Model (DIM), balloted in January, 2011, and reballoted in September, 2011. After a DSTU period, this guide was balloted to Normative status in the autumn of 2013.

This guide is the first implementable specification developed based on the EMS DIM.

An initial iteration, balloted in May 2011, supports what is commonly termed “level one” CDA compliance, i.e., a document with structured header information containing an unstructured document of some form (whether pdf, image, or other recognized format). In addition, this iteration supported “level two” compliance, in which human-readable text information is provided for sections identified in XML. A sender of a document, however, must choose whether to send the “level one” encapsulated document or the “level two” set of XML sections: a document containing both is not acceptable.

The September, 2011 iteration modeled the sections to “level three,” in which the sections also include detailed, structured information representing the section text. This structured information follows standard patterns in such a way that receiving applications will be able to process specific semantically identified elements for storage in medical records, application of business rules, or other computable services. This iteration also includes changes to the level two template assignments, so the May 2011 informative version is no longer valid.

The 2015 edition adds a small number of elements requested by stakeholders and brings the guide up to date with NEMESIS 3.4.

Harmonization has been approached semantically rather than syntactically. There are clear parallels, but few exact matches, with the CDA Consolidation project—an effort by the Office of the National Coordinator's Standards & Interoperability initiative in collaboration with HL7 to bring together several similar extant CDA specifications. We expect that LOINC codes will offer the ability to identify consistent information elements, even when the structures they inhabit (templates) may be subject to differing requirements. These requirements include elements required in the Consolidated guide but not always available in an EMS setting, elements needed in an EMS setting but not represented in the Consolidated templates, and elements where a code is specific to a clinical setting and an EMS-specific code is needed. Similarly, harmonization with the Emergency Department specification *Data Elements for Emergency Department Systems* (DEEDS) depends on the use of extant or related LOINC codes for shared elements.

The templates in this guide are open, meaning that information not specified in the guide may be included in document instances, though recipients are under no obligation to comprehend that additional information.

This release 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.

Units

Physical quantities use the HL7 PQ data type, in which units are expressed in the Unified Code for Units of Measure (UCUM; 2.16.840.1.113883.6.8), available at unitsofmeasure.org. We recommend using the case sensitive values of that specification (2.16.840.1.113883.1.11.12839.). Interface values that are not actual physical units are handled differently: see appendix C for mappings.

Null and Negative Values

We use RIM attributes for observations that may require explicit negation or null values. A provider who has checked for signs of drug use can assert that a particular sign was found (with a proper value), that whether there were signs is unknown (with a null) or that there were no signs (with negation).

However, in collections of acts other than observations, epistemological attributes may have uncertain semantics. If a procedure is negated, it may not be clear whether the provider is asserting that the procedure has never been performed on the patient or was not performed in a particular context. Similarly, one may document a history of

specific disorders, but including a single, general but negated disorder implies assumptions about the scope of the negated disorder that are not explicitly modeled.

As a result, we manage negation and uncertainty for procedures with explicit Boolean observations. Using an observation allows the clinician to assert a history of zero disorders, or a lack of knowledge about disorders, without tying that assertion to a notional disorder that may imply unanticipated facts or questions.

In the interest of conformance with other guides, we also represent these null and negative acts with null and negated acts, in line with Consolidation Project recommendations. These notional classes should be annotated to ensure that it is clear that they restate the explicit observations, and are not distinct facts.

Null Value Mapping

NEMESIS contains null values not listed in HL7. "Not applicable" maps directly to "Not applicable", but "Not recorded" and "Not reported" must be represented as the general concept "No information". These NEMESIS values may also be copied into Observation.text.

NEMESIS also contains "pertinent negatives", most of which are addressed with negation and special cases in this document. Some of the negative action values, however, are actually null values, and are recorded as "NI", no information. A mapping of negative action values is provided in Appendix B.

Organization of This Guide

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

Templates

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

Vocabulary and Value Sets

Vocabularies specified in this guide are derived from standard vocabularies where possible; most questions, however, are fairly specific to the EMS domain. These questions have been encoded in clinical LOINC, and the answer sets have been encoded there as well, and they are included in this document. These values can also be obtained from LOINC.org. We anticipate publishing these value sets in a standard provisioning system, but are on hold pending the current work being done to align LOINC and SNOMED CT.

For properties bound to large value systems (e.g., ICD-10 PCS), NEMESIS provides suggested subsets at NEMESIS.org, under "V3 resources." These are not to be used to validate values (all values in the system are valid), but as suggested aids to providing a manageable user interface. All RxNorm drugs are valid, for instance, but you might wish to provide a selection of drugs commonly found on EMS vehicles for easy selection.

Use of Templates

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

Originator Responsibilities

An originator can apply a `templateId` to assert conformance with a particular template.

In the most general forms of CDA exchange, an originator need not apply a `templateId` for every template that an object in an instance document conforms to. This implementation guide asserts when `templateIds` are required for conformance.

Recipient Responsibilities

A recipient may reject an instance that does not contain a particular `templateId` (e.g., a recipient looking to receive only CCD documents can reject an instance without the appropriate `templateId`).

A recipient may process objects in an instance document that do not contain a `templateId` (e.g., a recipient can process entries that contain Observation acts within a Problems section, even if the entries do not have `templateIds`).

Conventions Used in This Guide

Conformance Requirements

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

Template name

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

Description of the template will be here

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

Figure 1: Template name and "conforms to" appearance

The conformance verb keyword at the start of a constraint (**SHALL** , **SHOULD** , **MAY**, etc.) indicates business conformance, whereas the cardinality indicator (0..1, 1..1, 1..*, etc.) specifies the allowable occurrences within an instance. Thus, " **MAY** contain 0..1" and " **SHOULD** contain 0..1" both allow for a document to omit the particular component, but the latter is a stronger recommendation that the component be included if it is known.

The following cardinality indicators may be interpreted as follows:

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

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

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

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

- a. **SHALL** contain [1..1] Patient data section - NCR (templateId:2.16.840.1.113883.10.20.17.2.5) (CONF:4133).

Figure 2: Template-based conformance statements example

Note that most constraints in this guide do not contain the "such that" phrase, and this could in some cases give the impression that two statements, each of the form "SHALL contain exactly one . . ." are to be in conflict. This is an artifact of the modeling tool: both statements are required, and they are not in conflict.

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

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

Figure 3: CCD conformance statements example

Keywords

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

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

XML Examples

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

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

Figure 4: ClinicalDocument example

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

Chapter

2

DOCUMENT TEMPLATES

Topics:

- [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 2.16.840.1.113883.17.3.10.2]

A report from the EMS crew to the emergency department summarizing the patient's condition and any remedial actions taken

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.2"
2. **SHALL** conform to *Consol General Header Constraints* template (templateId: 2.16.840.1.113883.10.20.22.1.1)
3. **SHALL** contain exactly one [1..1] **@classCode**="DOCCLIN" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:10000)
4. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:10001)
5. **SHALL** contain exactly one [1..1] **id** (CONF:5363)
 - *NEMESIS trace: ERecord.01*
/@root should be the OID for the Agency; @extension the internally assigned ID
6. **SHALL** contain exactly one [1..1] **code** (CONF:5253)/**@code**="67796-3" *EMS patient care report - version 3.1 Document NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10002)
7. **SHALL** contain exactly one [1..1] **title** and **SHALL** equal "EMS Patient Care Report" (CONF:5254)
8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHALL** be selected from ValueSet HL7 BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 **STATIC** (CONF:5259)
 - *Default value is "N" (normal)*
9. **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, the first instance should be denoted by a versionId of "1."*
10. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:10004)
 - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:10870)
 - a. This patientRole **SHALL** contain at least one [1..*] **addr** (CONF:10031)

NEMESIS 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/postalCode
EPatient.10 . . . /PatientRole/addr/country
 - b. This patientRole **SHALL** contain at least one [1..*] **id** (CONF:10871)

NEMESIS 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**

NEMESIS Trace: EPatient.18
 - d. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:10872)

- a. This patient **SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:10035), which **SHALL** be selected from ValueSet *Administrative Gender Excluding Nulls* 2.16.840.1.113883.3.2074.1.1.5 **DYNAMIC** (CONF:10878)

NEMESIS Trace: EPatient.13

- b. This patient **SHOULD** contain zero or one [0..1] **birthTime** (CONF:10873)

NEMESIS Trace

EPatient.17

- c. This patient **MAY** contain zero or one [0..1] **ethnicGroupCode** (CONF:10874), which **SHALL** be selected from ValueSet *Ethnicity Group* 2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:10032)

NEMESIS Trace: EPatient.14

- d. This patient **SHOULD** contain zero or one [0..1] **maritalStatusCode** (CONF:5303), which **SHALL** be selected from ValueSet *HL7 Marital Status* 2.16.840.1.113883.1.11.12212 **STATIC** 1

- e. This patient **SHOULD** contain zero or more [0..*] **name** (CONF:10875)

NEMESIS 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.

- f. This patient **SHALL** contain exactly one [1..1] **raceCode** (CONF:10876), which **SHALL** be selected from ValueSet *RaceCategory* 2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:10033)

NEMESIS Trace: EPatient.14

NEMESIS 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 NEMESIS 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.

- g. This patient **MAY** contain zero or one [0..1] **religiousAffiliationCode** (CONF:5317), which **SHALL** be selected from ValueSet *HL7 Religious Affiliation* 2.16.840.1.113883.1.11.19185 **STATIC** 1
- h. This patient **MAY** contain zero or more [0..*] **sdtc:RaceCode** (CONF:10877), which **SHALL** be selected from ValueSet *RaceCategory* 2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:10034)

NEMESIS Trace: EPatient.14

- i. This patient **MAY** contain zero or more [0..*] **sdTCRaceCode**, which **SHALL** be selected from ValueSet *Race Value Set* 2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:7263)

Note: The sdtc:raceCode is only used to record additional values when the patient has indicated multiple races or additional race detail beyond the five categories required for Meaningful Use Stage 2. The prefix sdtc: SHALL be bound to the namespace "urn:hl7-org:sdtc". The use of the namespace provides a necessary extension to CDA R2 for the use of the additional raceCode elements.

- j. This patient **MAY** contain zero or one [0..1] **birthplace** (CONF:5395)

- a. This birthplace **SHALL** contain exactly one [1..1] **place** (CONF:5396)

- a. This place **SHALL** contain exactly one [1..1] **addr** (CONF:5397)
- b. This place If country is US, this addr **SHALL** contain exactly one [1..1] state, which **SHALL** be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 DYNAMIC
- c. This place This addr **MAY** contain zero or one [0..1] postalCode, which **SHALL** be selected from ValueSet PostalCodeValueSet 2.16.840.1.113883.3.88.12.80.2 DYNAMIC
- d. This place This addr **SHOULD** contain zero or one [0..1] country, which **SHALL** be selected from ValueSet CountryValueSet 2.16.840.1.113883.3.88.12.80.63 DYNAMIC
- k. This patient **MAY** contain zero or more [0..*] **guardian** (CONF:5325)
 - a. Such guardians **SHOULD** contain zero or more [0..*] **addr** with @xsi:type="USRealmAddress"
 - a. **SHALL** contain exactly one [1..1] **city** (CONF:7292)
 - b. **SHOULD** contain zero or one [0..1] **country** (CONF:7295)
 - c. **SHOULD** contain zero or one [0..1] **postalCode** (CONF:7294)
 - d. **SHOULD** contain zero or one [0..1] **state** (CONF:7293)
 - e. **SHALL** contain at least one [1..*] **streetAddressLine** (CONF:7291)
 - f. **SHOULD** contain zero or one [0..1] **@use** (CONF:7290), which **SHALL** be selected from ValueSet *PostalAddressUse* 2.16.840.1.113883.1.11.10637 **STATIC**
 - g. State is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:10024)
 - h. PostalCode is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:10025)
 - i. **SHALL NOT** have mixed content except for white space (CONF:7296)
 - j. **SHALL** contain at least one and not more than 4 streetAddressLine (CONF:7291)
 - b. Such guardians **SHOULD** contain zero or one [0..1] **code** (CONF:5326)
 - c. Such guardians **MAY** contain zero or more [0..*] **telecom** with @xsi:type="TEL"
 - a. **SHOULD** contain zero or one [0..1] **@use** (CONF:7993)
 - d. Such guardians **SHALL** contain exactly one [1..1] **guardianPerson**
 - a. This guardianPerson **SHALL** contain at least one [1..*] **name**
 - b. This guardianPerson The content of name **SHALL** be a conformant US Realm Person Name (PTN.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.1.1) (CONF:10414)
 - e. Such guardians The guardian code, if present, **SHALL** be selected from ValueSet PersonalRelationshipRoleType 2.16.840.1.113883.1.11.19563 DYNAMIC or ValueSet Responsible Party 2.16.840.1.113883.1.11.19830 DYNAMIC (CONF:5326)
- l. This patient **SHOULD** contain zero or more [0..*] **languageCommunication** (CONF:5406)
 - a. Such languageCommunications **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet *Language* 2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:5407)
 - b. Such languageCommunications **MAY** contain zero or one [0..1] **modeCode**, which **SHALL** be selected from ValueSet *HL7 LanguageAbilityMode* 2.16.840.1.113883.1.11.12249 **STATIC** 1 (CONF:5409)
 - c. Such languageCommunications **MAY** contain zero or one [0..1] **preferenceInd** (CONF:5414)
 - d. Such languageCommunications **SHOULD** contain zero or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet *LanguageAbilityProficiency* 2.16.840.1.113883.1.11.12199 **STATIC** (CONF:9965)
- e. This patientRole **MAY** contain zero or one [0..1] **providerOrganization** (CONF:5416)
 - a. This providerOrganization **SHALL** contain at least one [1..*] **addr** with @xsi:type="USRealmAddress"
 - a. **SHALL** contain exactly one [1..1] **city** (CONF:7292)

- b. **SHOULD** contain zero or one [0..1] **country** (CONF:7295)
 - c. **SHOULD** contain zero or one [0..1] **postalCode** (CONF:7294)
 - d. **SHOULD** contain zero or one [0..1] **state** (CONF:7293)
 - e. **SHALL** contain at least one [1..*] **streetAddressLine** (CONF:7291)
 - f. **SHOULD** contain zero or one [0..1] **@use** (CONF:7290), which **SHALL** be selected from ValueSet [PostalAddressUse 2.16.840.1.113883.1.11.10637](#) **STATIC**
 - g. State is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:10024)
 - h. PostalCode is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:10025)
 - i. **SHALL NOT** have mixed content except for white space (CONF:7296)
 - j. **SHALL** contain at least one and not more than 4 streetAddressLine (CONF:7291)
- (CONF:5422)
- b. This providerOrganization **SHALL** contain at least one [1..*] **id** (CONF:5417)
 - c. This providerOrganization **SHALL** contain at least one [1..*] **name** (CONF:5419)
 - d. This providerOrganization **SHALL** contain at least one [1..*] **telecom** with @xsi:type="TEL"
 - a. **SHOULD** contain zero or one [0..1] **@use** (CONF:7994)
- (CONF:5420)
- e. This providerOrganization The id **SHOULD** include zero or one [0..1] id where id/@root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:9996) (CONF:9996)
11. **SHALL** contain at least one [1..*] **author** (CONF:10027)
- a. Such authors **SHALL** contain exactly one [1..1] **time** (CONF:5445)
- The content SHALL be a conformant US Realm Date and Time (DTM.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*
- b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:5448)
 - a. This assignedAuthor **SHALL** contain at least one [1..*] **addr** with @xsi:type="USRealmAddress"
 - a. **SHALL** contain exactly one [1..1] **city** (CONF:7292)
 - b. **SHOULD** contain zero or one [0..1] **country** (CONF:7295)
 - c. **SHOULD** contain zero or one [0..1] **postalCode** (CONF:7294)
 - d. **SHOULD** contain zero or one [0..1] **state** (CONF:7293)
 - e. **SHALL** contain at least one [1..*] **streetAddressLine** (CONF:7291)
 - f. **SHOULD** contain zero or one [0..1] **@use** (CONF:7290), which **SHALL** be selected from ValueSet [PostalAddressUse 2.16.840.1.113883.1.11.10637](#) **STATIC**
 - g. State is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:10024)
 - h. PostalCode is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:10025)
 - i. **SHALL NOT** have mixed content except for white space (CONF:7296)
 - j. **SHALL** contain at least one and not more than 4 streetAddressLine (CONF:7291)
- (CONF:5452)
- b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy \(NUCC - HIPAA\) 2.16.840.1.114222.4.11.1066](#) **DYNAMIC** (CONF:16788)
 - c. This assignedAuthor **SHALL** contain at least one [1..*] **id** (CONF:5449)
 - d. This assignedAuthor **SHALL** contain at least one [1..*] **telecom** with @xsi:type="TEL"

- a. **SHOULD** contain zero or one [0..1] **@use** (CONF:7995)
(CONF:5428)
- e. This assignedAuthor contain zero or one [0..1] **assignedAuthoringDevice**
 - a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)
 - b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)
- f. This assignedAuthor contain zero or one [0..1] **assignedPerson**
 - a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)
- g. This assignedAuthor **SHALL** contain exactly one [1..1] assignedPerson or assignedAuthoringDevice (CONF:16790)
- h. This assignedAuthor If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id such that it **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.6"** National Provider Identifier (CONF:31135, CONF:31694)
- c. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:10879)
 - a. This assignedAuthor **SHALL** contain exactly one [1..1] **addr** with **@xsi:type="AD"** (CONF:10040)

Required for human author; may be null for a software device
NEMESIS Trace
DPersonnel.04. . . / AssignedAuthor/addr/streetAddressLine
DPersonnel.05 . . . / AssignedAuthor/addr/city
DPersonnel.06. . . / AssignedAuthor/addr/state
DPersonnel.07. . . / AssignedAuthor/addr/postalCode
DPersonnel.08. . . / AssignedAuthor/addr/country
 - b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet *Healthcare Provider Taxonomy (NUCC - HIPAA)* 2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:16788)
 - c. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:10039)

NEMESIS Trace: EOther.08 for human author; may be null for a software device
 - d. This assignedAuthor **SHALL** contain exactly one [1..1] **telecom** with **@xsi:type="TEL"** (CONF:10041)

Required for human author; may be null for a software device
NEMESIS Trace: DPersonnel.09
- e. This assignedAuthor contain zero or one [0..1] **assignedAuthoringDevice**
 - a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784)
 - b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785)
- f. This assignedAuthor contain zero or one [0..1] **assignedPerson**
 - a. This assignedPerson **SHALL** contain at least one [1..*] **name** (CONF:16789)
- g. This assignedAuthor **MAY** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:10881)

One authoring device is required for the document.
 - a. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:9936)

NEMESIS Trace: ERecord.02
 - b. This assignedAuthoringDevice **SHALL** contain exactly one [1..1] **softwareName** (CONF:9999)

NEMESIS Trace: ERecord.03 and ERecord.04 (version), concatenated with an intervening caret ("^")
- h. This assignedAuthor **MAY** contain zero or one [0..1] **assignedPerson** (CONF:10880)

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

NEMESIS Trace

DPersonnel.01 . . . Person/name/family

DPersonnel.02 . . . Person/name/given

DPersonnel.03 . . . Person/name/given

12. **SHALL** contain exactly one [1..1] **custodian** (CONF:5519)

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

- a. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:5521)

- a. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **addr** with `@xsi:type="USRealmAddress"`

- a. **SHALL** contain exactly one [1..1] **city** (CONF:7292)
- b. **SHOULD** contain zero or one [0..1] **country** (CONF:7295)
- c. **SHOULD** contain zero or one [0..1] **postalCode** (CONF:7294)
- d. **SHOULD** contain zero or one [0..1] **state** (CONF:7293)
- e. **SHALL** contain at least one [1..*] **streetAddressLine** (CONF:7291)
- f. **SHOULD** contain zero or one [0..1] **@use** (CONF:7290), which **SHALL** be selected from ValueSet [PostalAddressUse](#) 2.16.840.1.113883.1.11.10637 **STATIC**
- g. State is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:10024)
- h. PostalCode is required if the country is US. If country is not specified, its assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:10025)
- i. **SHALL NOT** have mixed content except for white space (CONF:7296)
- j. **SHALL** contain at least one and not more than 4 streetAddressLine (CONF:7291)

(CONF:5559)

- b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:5522)
- c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:5524)
- d. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** with `@xsi:type="TEL"`

- a. **SHOULD** contain zero or one [0..1] **@use**

(CONF:5525)

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

- b. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:10884)

- a. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:10885)

- a. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **addr** (CONF:10886)

NEMESIS Trace

DContact.05. . . / representedCustodianOrganization/addr/streetAddressLine

DContact.06. . . / representedCustodianOrganization/addr/city

DContact.07. . . / representedCustodianOrganization/addr/county

DContact.08. . . / representedCustodianOrganization/addr/state

DContact.09. . . / representedCustodianOrganization/addr/postalCode

DContact.10. . . / representedCustodianOrganization/addr/country

- b. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:10887)

NEMESIS Trace: EResponse.01

@extension is the Agency identifier; @root, if included, the OID of the assigning body

- c. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:10888)

NEMESIS Trace: EResponse.02

13. SHALL contain exactly one [1..1] **participant** (CONF:10030)

- a. This participant **SHALL** contain exactly one [1..1] **time** with @xsi:type="TS" (CONF:11328)

NEMESIS Trace: eTimes.12 (Destination patient transfer of care date/time)

- b. This participant **SHALL** contain exactly one [1..1] **@typeCode="DST"** (CONF:10054)
- c. This participant contain zero or one [0..1] **associatedEntity**

- a. This associatedEntity **SHOULD** contain zero or one [0..1] **addr** (CONF:10055)

NEMESIS Trace: EDisposition.03-07

- b. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** , which **SHALL** be selected from ValueSet **STATIC** (CONF:10901)
- c. This associatedEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet *DestinationType* 2.16.840.1.113883.17.3.11.69 **DYNAMIC** (CONF:10056)

NEMESIS Trace: EDisposition.21

- d. This associatedEntity contains zero or more [0..*] **id1** with @xsi:type="II"

NEMESIS Trace: EDisposition.02

- e. This associatedEntity contain zero or one [0..1] **scopingOrganization**
 - a. This scopingOrganization **SHALL** contain exactly one [1..1] **name** (CONF:10057)

NEMESIS Trace: EDisposition.01

14. SHALL contain exactly one [1..1] **documentationOf** (CONF:10028)

- a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:10889)

- a. This serviceEvent **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet *ServiceType* 2.16.840.1.113883.17.3.11.79 **DYNAMIC** (CONF:10051)

NEMESIS Trace: EResponse.05, type of service requested

- b. This serviceEvent **SHALL** contain exactly one [1..1] **id** (CONF:10890)

NEMESIS Trace: EReponse.03

id/@extension is the incident number assigned by the 911 Dispatch System, where the id/@root SHOULD be the OID of the dispatching organization

- c. This serviceEvent **SHALL** contain at least one [1..*] **performer** (CONF:10891)
 - a. Such performers **SHALL** contain exactly one [1..1] **functionCode**, which **SHALL** be selected from ValueSet *ProviderResponseRole* 2.16.840.1.113883.17.3.11.80 **DYNAMIC** (CONF:10052)

NEMESIS Trace: ECrew.03

- b. Such performers **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:10892)
 - a. This assignedEntity **SHALL** contain exactly one [1..1] **addr** (CONF:10895)

NEMESIS Trace

DPersonnel.04 . . . / assignedentity /addr/streetAddressLine

DPersonnel.05 . . . / assignedentity /addr/city

DPersonnel.06 . . . / assignedentity /addr/state

DPersonnel.07 . . . / assignedentity /addr/postalCode

DPersonnel.08 . . . / assignedentity /addr/country

- b. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:10893), which **SHALL** be selected from ValueSet [CrewRoleLevel](#) 2.16.840.1.113883.17.3.11.81 **DYNAMIC** (CONF:10053)

NEMESIS Trace: ECrew.02

- c. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:10894)

NEMESIS Trace: ECrew.01

- d. This assignedEntity **SHALL** contain exactly one [1..1] **telecom** (CONF:10896)

NEMESIS Trace: DPersonnel.09

- e. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:10897)

- a. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:10898)

NEMESIS Trace

DPersonnel.01 Last: @ENXP="FAM"

DPersonnel.02 First: @ENXP="GIV"

DPersonnel.03 Middle: @ENXP="GIV"

15. MAY contain zero or one [0..1] **relatedDocument** (CONF:10029)

- a. This relatedDocument contain exactly one [1..1] **@typeCode="RPLC"**
- b. This relatedDocument **MAY** contain zero or one [0..1] **parentDocument** (CONF:10899)
 - a. This parentDocument **SHALL** contain exactly one [1..1] **id** (CONF:10900)

NEMESIS Trace: ERecord.01

16. SHALL contain exactly one [1..1] **componentOf** (CONF:9955)

- a. This componentOf **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:10042)
- b. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:10882)
 - a. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10043)

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

- b. This encompassingEncounter **SHALL** contain exactly one [1..1] **id** (CONF:11326)

NEMESIS Trace: eResponse.04 (response number)

- c. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:10883)
 - a. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:10044)
 - a. This healthCareFacility **SHALL** contain exactly one [1..1] **code** (CONF:11381), which **SHALL** be selected from ValueSet [UnitResponseRole](#) 2.16.840.1.113883.17.3.11.82 **DYNAMIC** (CONF:10047)

NEMESIS Trace: EResponse.07

- b. This healthCareFacility **SHALL** contain at least one [1..*] **id** (CONF:10045)

NEMESIS Trace: eResponse.13 (EMS vehicle/unit number), eResponse.14 (EMS unit call sign)

- c. This healthCareFacility **SHALL** contain exactly one [1..1] **location** (CONF:10046)

- a. This location **MAY** contain zero or one [0..1] **addr** (CONF:10049)

NEMESIS Trace: EScene.15-21

- b. This location **SHALL** contain exactly one [1..1] **@classCode="PLC"** (CONF:10050)
- c. This location **MAY** contain zero or one [0..1] **name** (CONF:10048)

NEMESIS Trace: EScene.13

- d. This encompassingEncounter **MAY** contain zero or more [0..*] **encounterParticipant** (CONF:11325)

- a. Such encounterParticipants **SHALL** contain exactly one [1..1] **@typeCode="CON"** , which **SHALL** be selected from (CONF:11327)
- b. Such encounterParticipants contain exactly one [1..1] **assignedEntity**
 - a. This assignedEntity contain exactly one [1..1] **@classCode="ASSIGNED"**
 - b. This assignedEntity contain exactly one [1..1] **representedOrganization** {subsets Assigned Entity::representedOrganization}
 - a. This representedOrganization contain exactly one [1..1] **name**

NEMSIS Trace: eScene.02, other agency (ies) at scene

17. SHALL contain [1..1] **component** (CONF:10008)

- a. Contains exactly one [1..1] *EMS Current Medication Section* (templateId: 2.16.840.1.113883.17.3.10.1.15)

18. MAY contain [0..1] **component** (CONF:10009)

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

19. SHOULD contain [0..1] **component** (CONF:10010)

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

20. SHALL contain [1..1] **component** (CONF:10011)

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

21. SHALL contain [1..1] **component** (CONF:10012)

- a. Contains exactly one [1..1] *EMS Past Medical History Section* (templateId: 2.16.840.1.113883.17.3.10.1.19)

22. SHALL contain [1..1] **component** (CONF:10013)

- a. Contains exactly one [1..1] *EMS Social History Section* (templateId: 2.16.840.1.113883.17.3.10.1.22)

23. SHALL contain [1..1] **component** (CONF:10014)

- a. Contains exactly one [1..1] *EMS Physical Assessment Section* (templateId: 2.16.840.1.113883.17.3.10.1.20)

24. MAY contain [0..1] **component** (CONF:10015)

- a. Contains exactly one [1..1] *EMS Medications Administered Section* (templateId: 2.16.840.1.113883.17.3.10.1.18)

25. SHALL contain [1..1] **component** (CONF:10016)

- a. Contains exactly one [1..1] *EMS Procedures Performed Section* (templateId: 2.16.840.1.113883.17.3.10.1.21)

26. SHALL contain [1..1] **component** (CONF:10017)

- a. Contains exactly one [1..1] *EMS Patient Care Narrative Section* (templateId: 2.16.840.1.113883.17.3.10.1.1)

27. SHALL contain [1..1] **component** (CONF:10018)

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

28. SHALL contain [1..1] **component** (CONF:10019)

- a. Contains exactly one [1..1] *EMS Dispatch Section* (templateId: 2.16.840.1.113883.17.3.10.1.2)

29. MAY contain [0..1] **component** (CONF:10020)

- a. Contains exactly one [1..1] *EMS Disposition Section* (templateId: 2.16.840.1.113883.17.3.10.1.4)

30. SHALL contain [1..1] **component** (CONF:10021)

- a. Contains exactly one [1..1] *EMS Personnel Adverse Event Section* (templateId: 2.16.840.1.113883.17.3.10.1.6)
- 31. **SHALL** contain [1..1] **component** (CONF:10022)
 - a. Contains exactly one [1..1] *EMS Protocol Section* (templateId: 2.16.840.1.113883.17.3.10.1.7)
- 32. **SHALL** contain [1..1] **component** (CONF:10023)
 - a. Contains exactly one [1..1] *EMS Response Section* (templateId: 2.16.840.1.113883.17.3.10.1.3)
- 33. **SHALL** contain [1..1] **component** (CONF:10024)
 - a. Contains exactly one [1..1] *EMS Situation Section* (templateId: 2.16.840.1.113883.17.3.10.1.9)
- 34. **MAY** contain [0..1] **component** (CONF:10025)
 - a. Contains exactly one [1..1] *EMS Times Section* (templateId: 2.16.840.1.113883.17.3.10.1.10)
- 35. **SHALL** contain [1..1] **component** (CONF:10026)
 - a. Contains exactly one [1..1] *EMS Vital Signs Section* (templateId: 2.16.840.1.113883.17.3.10.1.23)
- 36. **SHALL** contain [1..1] **component** (CONF:10869)
 - a. Contains exactly one [1..1] *EMS Injury Incident Description Section* (templateId: 2.16.840.1.113883.17.3.10.1.17)
- 37. **SHOULD** contain [0..*] **component** (CONF:11318)
 - a. Contains exactly one [1..1] *EMS Billing Section* (templateId: 2.16.840.1.113883.17.3.10.1.5)

Chapter

3

SECTION TEMPLATES

Topics:

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

EMS Advance Directives Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.12]

Information regarding patient advance directives

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.12"
2. **SHALL** contain exactly one [1..1] **code/@code**="67840-9" *EMS advance directives Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10191)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS advance directives Narrative NEMESIS" (CONF:10944)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10945)
5. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** (CONF:10946)
 - a. Contains exactly one [1..1] *Advance Directive Observation* (templateId: 2.16.840.1.113883.17.3.10.1.98)

EMS Allergies And Adverse Reactions Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.13]

Information regarding patient allergies and sensitivities

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.13"
2. **SHALL** contain exactly one [1..1] **code/@code**="48765-2" *Allergies and adverse reactions Document* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10196)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Allergies and Adverse Reactions" (CONF:10948)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10949)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10953)
 - a. Contains exactly one [1..1] *Non Drug Allergy Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.49)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11319)
 - a. Contains exactly one [1..1] *Drug Allergy Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.183)

EMS Billing Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.5]

Information pertinent to billing processes

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.5"
2. **SHALL** contain exactly one [1..1] **code/@code**="67659-3" *EMS billing Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10080)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Billing Section" (CONF:10907)

4. **SHALL** contain exactly one [1..1] **text** (CONF:10909)
5. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10910)
 - a. Contains exactly one [1..1] *Billing Condition* (templateId: 2.16.840.1.1133883.17.3.10.1.91)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10912)
 - a. Contains exactly one [1..1] *Level Of Service Observation* (templateId: 2.16.840.1.1133883.17.3.10.1.92)

EMS Cardiac Arrest Event Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.14]

Information regarding a cardiac arrest

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.14"
2. **SHALL** contain exactly one [1..1] **code/@code**="67799-7" *EMS cardiac arrest event Narrative NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10134)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Cardiac Arrest Event" (CONF:10937)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10938)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10939)
 - a. Contains exactly one [1..1] *Cardiac Arrest* (templateId: 2.16.840.1.1133883.17.3.10.1.27)

EMS Current Medication Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.15]

Information regarding a patient's current medications

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.15"
2. **SHALL** contain exactly one [1..1] **code/@code**="67844-1" *EMS current medications Narrative NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10955)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Current Medications Section" (CONF:10219)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10957)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10958)
 - a. Contains exactly one [1..1] *Currently On Medication* (templateId: 2.16.840.1.1133883.17.3.10.1.75)
6. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10960)
 - a. Contains exactly one [1..1] *Patient On Anticoagulants* (templateId: 2.16.840.1.1133883.17.3.10.1.76)
7. If section/@nullFlavor is not present, **SHALL** contain [0..*] **entry** (CONF:10962)
 - a. Contains exactly one [1..1] *Current Medication* (templateId: 2.16.840.1.1133883.17.3.10.1.77)

EMS Dispatch Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.2]

Information regarding the dispatch process

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.2"
2. **SHALL** contain exactly one [1..1] **code**/**@code**="67660-1" *EMS dispatch Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10556)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Dispatch" (CONF:10558)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10557)
5. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10991)
 - a. Contains exactly one [1..1] *Emergency Medical Dispatch Observation* (templateId: 2.16.840.1.113883.17.3.10.1.73)
6. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10993)
 - a. Contains exactly one [1..1] *Complaint Reported By Dispatch* (templateId: 2.16.840.1.113883.17.3.10.1.74)

EMS Disposition Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.4]

Information regarding the disposition of the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.4"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10652)/**@code**="67661-9" *EMS disposition Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10651)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Disposition" (CONF:10654)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10653)
5. If section/**@nullFlavor** is not present, **SHALL** contain [0..1] **entry** (CONF:11003)
 - a. Contains exactly one [1..1] *Number Of Patients Transported Observation* (templateId: 2.16.840.1.113883.17.3.10.1.31)
6. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11005)
 - a. Contains exactly one [1..1] *Incident Disposition Observation* (templateId: 2.16.840.1.113883.17.3.10.1.32)
7. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11007)
 - a. Contains exactly one [1..1] *Transport Mode Observation* (templateId: 2.16.840.1.113883.17.3.10.1.33)
8. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11009)
 - a. Contains exactly one [1..1] *Transport Method Observation* (templateId: 2.16.840.1.113883.17.3.10.1.34)
9. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11011)
 - a. Contains exactly one [1..1] *Reason For Choosing Destination Observation* (templateId: 2.16.840.1.113883.17.3.10.1.35)
10. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11013)

- a. Contains exactly one [1..1] *Preadvival Activation Observation* (templateId: 2.16.840.1.1133883.17.3.10.1.36)
- 11. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11015)
 - a. Contains exactly one [1..1] *Patient Condition At Destination Observation* (templateId: 2.16.840.1.1133883.17.3.10.1.37)
- 12. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11330)
 - a. Contains exactly one [1..1] *Primary Destination Hospital Capability* (templateId: 2.16.840.1.1133883.17.3.10.1.104)
- 13. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11331)
 - a. Contains exactly one [1..1] *Destination Ward* (templateId: 2.16.840.1.1133883.17.3.10.1.186)

EMS Injury Incident Description Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.17]

Observations concerning a patient's injury mechanism

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.17"
2. **SHALL** contain exactly one [1..1] **code/@code**="67800-3" *EMS injury incident description Narrative NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10094)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "Injury Incident Description Section" (CONF:10914)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10916)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10917)
 - a. Contains exactly one [1..1] *Injury Cause Category* (templateId: 2.16.840.1.1133883.17.3.10.1.50)
6. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10919)
 - a. Contains exactly one [1..1] *Injury Mechanism* (templateId: 2.16.840.1.1133883.17.3.10.1.51)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10921)
 - a. Contains exactly one [1..1] *Trauma Center Criteria* (templateId: 2.16.840.1.1133883.17.3.10.1.52)
8. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** (CONF:10923)
 - a. Contains exactly one [1..1] *Injury Risk Factor* (templateId: 2.16.840.1.1133883.17.3.10.1.53)
9. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10925)
 - a. Contains exactly one [1..1] *Vehicle Impact Area* (templateId: 2.16.840.1.1133883.17.3.10.1.54)
10. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10927)
 - a. Contains exactly one [1..1] *Patient Location In Vehicle* (templateId: 2.16.840.1.1133883.17.3.10.1.55)
11. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10929)
 - a. Contains exactly one [1..1] *Vehicle Occupant Safety Equipment* (templateId: 2.16.840.1.1133883.17.3.10.1.56)
12. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10931)
 - a. Contains exactly one [1..1] *Airbag Deployment Status* (templateId: 2.16.840.1.1133883.17.3.10.1.57)
13. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10933)
 - a. Contains exactly one [1..1] *Height Of Fall* (templateId: 2.16.840.1.1133883.17.3.10.1.58)

14. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:10935)

- a. Contains exactly one [1..1] *Disaster Type* (templateId: 2.16.840.1.113883.17.3.10.1.59)

EMS Medications Administered Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.18]

Collection of information regarding the administration of medications

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

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.18"

2. **SHALL** contain exactly one [1..1] **code** (CONF:10439)/**@code**="67849-0" *EMS medications administered Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10987)

3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "Medications Administered Section" (CONF:10442)

4. **SHALL** contain exactly one [1..1] **text** (CONF:10441)

5. If section/@nullFlavor is not present, **SHALL** contain [0..*] **entry** (CONF:10989)

- a. Contains exactly one [1..1] *Medication Administered* (templateId: 2.16.840.1.113883.17.3.10.1.72)

EMS Past Medical History Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.19]

Collection of information regarding the patient's medical history

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

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.19"

2. **SHALL** contain exactly one [1..1] **code** (CONF:10059)/**@code**="67842-5" *EMS past medical history Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10058)

3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Past Medical History" (CONF:10060)

4. **SHALL** contain exactly one [1..1] **text** (CONF:10902)

5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10903)

- a. Contains exactly one [1..1] *Existence Of History Of Condition* (templateId: 2.16.840.1.113883.17.3.10.1.60)

6. If section/@nullFlavor is not present, **SHALL** contain [0..*] **entry** (CONF:10905)

- a. Contains exactly one [1..1] *History Of Condition* (templateId: 2.16.840.1.113883.17.3.10.1.61)

EMS Patient Care Narrative Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.1]

A narrative description of the EMS encounter

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

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.1"

2. **SHALL** contain exactly one [1..1] **code** (CONF:10551)/**@code**="67781-5" *Summarization of encounter note Narrative* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10552)

3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Patient Care Report Narrative" (CONF:10554)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10553)
 - *NEMESIS Trace: ENarrative.01*

EMS Personnel Adverse Event Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.6]

Information regarding adverse events affecting EMS personnel

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.6"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10698)/**@code**="67658-5" *EMS exposures or injuries of EMS personnel Provider Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10697)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "Exposures or Injuries of EMS Personnel" (CONF:10700)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10699)
5. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11017)
 - a. Contains exactly one [1..1] *Adverse Event Indicator* (templateId: 2.16.840.1.113883.17.3.10.1.89)
6. If section/**@nullFlavor** is not present, **SHALL** contain [0..*] **entry** (CONF:11019)
 - a. Contains exactly one [1..1] *Adverse Event Type Observation* (templateId: 2.16.840.1.113883.17.3.10.1.90)

EMS Physical Assessment Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.20]

A collection of qualitative assessments of the patient's physical condition and other facts

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.20"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10337)/**@code**="29545-1" *Physical findings Narrative* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10336)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Physical Assessment Section" (CONF:10339)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10338)
5. If section/**@nullFlavor** is not present, **SHALL** contain [0..*] **entry** (CONF:10975)
 - a. Contains exactly one [1..1] *Physical Assessment Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.78)
6. If section/**@nullFlavor** is not present, **SHALL** contain [0..1] **entry** (CONF:10977)
 - a. Contains exactly one [1..1] *Patient Pregnancy* (templateId: 2.16.840.1.113883.17.3.10.1.79)
7. If section/**@nullFlavor** is not present, **SHALL** contain [0..1] **entry** (CONF:10979)
 - a. Contains exactly one [1..1] *Last Oral Intake* (templateId: 2.16.840.1.113883.17.3.10.1.80)
8. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10981)

- a. Contains exactly one [1..1] *Patient Age* (templateId: 2.16.840.1.1133883.17.3.10.1.81)
- 9. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10983)
 - a. Contains exactly one [1..1] *Thrombolytic Contraindications* (templateId: 2.16.840.1.1133883.17.3.10.1.82)
- 10. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10985)
 - a. Contains exactly one [1..1] *Barriers To Patient Care* (templateId: 2.16.840.1.1133883.17.3.10.1.83)
- 11. contain zero or one [0..1] **bodyWeight** {subsets Section::entry}
 - a. This bodyWeight **SHALL** contain exactly one [1..1] **observation**, where its type is *Patient Body Weight* (CONF:11099)
- 12. contain zero or one [0..1] **lengthBasedBodyWeight** {subsets Section::entry}
 - a. This lengthBasedBodyWeight **SHALL** contain exactly one [1..1] **observation**, where its type is *Length Based Patient Body Weight Class* (CONF:11100)

EMS Procedures Performed Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.21]

Information regarding procedures performed by the EMS personnel or by others prior to EMS unit arrival

- 1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.21"
- 2. **SHALL** contain exactly one [1..1] **code** (CONF:10490)/**@code**="29554-3" *Procedure Narrative* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10489)
- 3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Procedures Performed" (CONF:10492)
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:10491)
- 5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** (CONF:6277)
 - a. Contains exactly one [1..1] *Procedure* (templateId: 2.16.840.1.1133883.17.3.10.1.181)

EMS Protocol Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.7]

Information about the protocol used by EMS personnel to direct the clinical care of the patient

- 1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.7"
- 2. **SHALL** contain exactly one [1..1] **code**/**@code**="67663-5" *EMS protocol Narrative NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10713)
- 3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Protocol Section" (CONF:11021)
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:11023)
- 5. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** (CONF:11024)
 - a. Contains exactly one [1..1] *Protocol Observation* (templateId: 2.16.840.1.1133883.17.3.10.1.93)
- 6. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:11026)
 - a. Contains exactly one [1..1] *Candidate Patient Registry Type* (templateId: 2.16.840.1.1133883.17.3.10.1.94)

EMS Response Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.3]

Information regarding the EMS crew's response to dispatch

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.3"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10573)/**@code**="67664-3" *EMS response Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10572)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Response" (CONF:10575)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10574)
5. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10995)
 - a. Contains exactly one [1..1] *Delay Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.95)
6. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10997)
 - a. Contains exactly one [1..1] *Dispatch Location Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.96)
7. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:10999)
 - a. Contains exactly one [1..1] *Response Odometer Reading Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.97)
8. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11001)
 - a. Contains exactly one [1..1] *Response Mode To Scene* (templateId: 2.16.840.1.113883.17.3.10.1.182)
9. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11329)
 - a. Contains exactly one [1..1] *Unit Level Of Care Capability* (templateId: 2.16.840.1.113883.17.3.10.1.190)

EMS Scene Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.8]

Information about the environment in which the patient is found

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.8"
2. **SHALL** contain exactly one [1..1] **code**/**@code**="67665-0" *EMS scene Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10732)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Scene" (CONF:10734)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10733)
5. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11028)
 - a. Contains exactly one [1..1] *First Unit Indicator* (templateId: 2.16.840.1.113883.17.3.10.1.84)
6. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11032)
 - a. Contains exactly one [1..1] *Scene Patient Count* (templateId: 2.16.840.1.113883.17.3.10.1.86)
7. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11034)
 - a. Contains exactly one [1..1] *Mass Casualty Indicator* (templateId: 2.16.840.1.113883.17.3.10.1.87)
8. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** (CONF:11036)

- a. Contains exactly one [1..1] *Location Type Observation* (templateId: 2.16.840.1.113883.17.3.10.1.88)

EMS Situation Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.9]

Information about patient symptoms and complaints

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.9"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10755)/**@code**="67666-8" *EMS situation Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10756)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Situation Section" (CONF:10758)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10757)
5. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** (CONF:11039)
 - a. Contains exactly one [1..1] *Complaint* (templateId: 2.16.840.1.113883.17.3.10.1.63)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11041)
 - a. Contains exactly one [1..1] *Possible Injury* (templateId: 2.16.840.1.113883.17.3.10.1.64)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11043)
 - a. Contains exactly one [1..1] *Provider Primary Impression* (templateId: 2.16.840.1.113883.17.3.10.1.65)
8. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11045)
 - a. Contains exactly one [1..1] *Primary Symptom* (templateId: 2.16.840.1.113883.17.3.10.1.66)
9. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11047)
 - a. Contains exactly one [1..1] *Other Symptoms* (templateId: 2.16.840.1.113883.17.3.10.1.67)
10. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11049)
 - a. Contains exactly one [1..1] *Provider Secondary Impressions* (templateId: 2.16.840.1.113883.17.3.10.1.68)
11. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11051)
 - a. Contains exactly one [1..1] *Initial Patient Acuity* (templateId: 2.16.840.1.113883.17.3.10.1.69)

EMS Social History Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.22]

Information about the patient's social environment

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.22"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10241)/**@code**="67843-3" *EMS social history Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10240)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Social History" (CONF:10243)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10964)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:10965)

- a. Contains exactly one [1..1] *Existence Of Drug Use Indication* (templateId: 2.16.840.1.113883.17.3.10.1.70)
- 6. If section/@nullFlavor is not present, **SHALL** contain [0..*] **entry** (CONF:10967)
 - a. Contains exactly one [1..1] *Drug Use Indication* (templateId: 2.16.840.1.113883.17.3.10.1.71)

EMS Times Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.10]

Set of times for defined events in the EMS trip

| Contained By | Contains |
|----------------------------|--|
| <i>Patient Care Report</i> | <i>Call Time</i> |
| | <i>Dispatch Notified Time</i> |
| | <i>Patient Arrived At Destination Time</i> |
| | <i>Unit At Patient Time</i> |
| | <i>Unit Back In Service Time</i> |
| | <i>Unit En Route Time</i> |
| | <i>Unit Left Scene Time</i> |
| | <i>Unit Notified Time</i> |
| | <i>Unit On Scene Time</i> |

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.10"
2. **SHALL** contain exactly one [1..1] **code/@code**="67667-6" *EMS times Narrative NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10820)
3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Times" (CONF:10822)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10821)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11053)
 - a. Contains exactly one [1..1] *Call Time* (templateId: 2.16.840.1.113883.17.3.10.1.38)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11055)
 - a. Contains exactly one [1..1] *Unit Notified Time* (templateId: 2.16.840.1.113883.17.3.10.1.39)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11057)
 - a. Contains exactly one [1..1] *Unit En Route Time* (templateId: 2.16.840.1.113883.17.3.10.1.40)
8. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11059)
 - a. Contains exactly one [1..1] *Unit On Scene Time* (templateId: 2.16.840.1.113883.17.3.10.1.41)
9. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11061)
 - a. Contains exactly one [1..1] *Unit At Patient Time* (templateId: 2.16.840.1.113883.17.3.10.1.42)
10. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11063)
 - a. Contains exactly one [1..1] *Unit Left Scene Time* (templateId: 2.16.840.1.113883.17.3.10.1.43)
11. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11065)
 - a. Contains exactly one [1..1] *Patient Arrived At Destination Time* (templateId: 2.16.840.1.113883.17.3.10.1.44)

12. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** (CONF:11067)

- a. Contains exactly one [1..1] *Unit Back In Service Time* (templateId: 2.16.840.1.113883.17.3.10.1.45)

13. If section/@nullFlavor is not present, **SHALL** contain [0..1] **entry** (CONF:11069)

- a. Contains exactly one [1..1] *Dispatch Notified Time* (templateId: 2.16.840.1.113883.17.3.10.1.46)

EMS Times Section example

```
Error: Missing Runtime Class
```

EMS Vital Signs Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.23]

Collection of vital signs and other observations about the patient's status

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

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.23"

2. **SHALL** contain exactly one [1..1] **code/@code**="8716-3" *Vital Signs* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10252)

3. **SHALL** contain exactly one [1..1] **title** and **SHOULD** equal "EMS Vital Signs" (CONF:10254)

4. **SHALL** contain exactly one [1..1] **text** (CONF:10969)

5. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** (CONF:10970)

- a. Contains exactly one [1..1] *Vital Signs Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.28)

Chapter

4

CLINICAL STATEMENT TEMPLATES

Topics:

- *Abandoned Procedure Reason Observation*
- *Abdomen Assessment*
- *Advance Directive Observation*
- *Adverse Event Indicator*
- *Adverse Event Type Observation*
- *Airbag Deployment Status*
- *Airway Confirmation Observation*
- *Arrest Rhythm*
- *Back And Spine Assessment*
- *Barriers To Patient Care*
- *Billing Condition*
- *Blood Glucose*
- *Body Temperature*
- *Call Time*
- *Candidate Patient Registry Type*
- *Carbon Dioxide*
- *Carbon Monoxide*
- *Cardiac Arrest*
- *Cardiac Arrest Cause*
- *Cardiac Arrest Outcome*
- *Cardiac Arrest Timing*
- *Cardiac Rhythm*
- *Chest And Lungs Assessment*
- *Complaint*
- *Complaint Duration*
- *Complaint Organ System*
- *Complaint Reported By Dispatch*
- *Complaint Type*
- *Current Medication*
- *Currently On Medication*
- *Delay Organizer*
- *Destination Rhythm*

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.

- *Destination Ward*
- *Diastolic Blood Pressure*
- *Disaster Type*
- *Dispatch Delay*
- *Dispatch Location Latitude*
- *Dispatch Location Longitude*
- *Dispatch Location Name*
- *Dispatch Location Organizer*
- *Dispatch Notified Time*
- *Drug Allergy*
- *Drug Allergy Organizer*
- *Drug Use Indication*
- *Emergency Medical Dispatch Observation*
- *Existence Of Drug Allergy Observation*
- *Existence Of Drug Use Indication*
- *Existence Of History Of Condition*
- *Existence Of Non Drug Allergy*
- *Extremities Assessment*
- *Eye Assessment*
- *Face Assessment*
- *First Unit Indicator*
- *Glasgow Coma Score Organizer*
- *Glasgow Eye*
- *Glasgow Motor*
- *Glasgow Qualifier*
- *Glasgow Total*
- *Glasgow Verbal*
- *Head Assessment*
- *Heart Assessment*
- *Heart Rate*
- *Height Of Fall*
- *History Of Condition*
- *Incident Disposition Observation*
- *Initial Patient Acuity*
- *Injury Cause Category*
- *Injury Mechanism*
- *Injury Risk Factor*
- *Last Oral Intake*
- *Length Based Patient Body Weight Class*
- *Level Of Responsiveness*
- *Level Of Service Observation*
- *Location Type Observation*

- *Mass Casualty Indicator*
- *Medication Administered*
- *Medication Complication Observation*
- *Medication Not Administered Reason Observation*
- *Medication Prior Administration Observation*
- *Medication Response Observation*
- *Mental Status Assessment*
- *Neck Assessment*
- *Neurological Assessment*
- *Non Drug Allergy*
- *Non Drug Allergy Organizer*
- *Number Of Patients Transported Observation*
- *Other Symptoms*
- *Oxygen Saturation*
- *Pain Score*
- *Patient Age*
- *Patient Arrived At Destination Time*
- *Patient Body Weight*
- *Patient Condition At Destination Observation*
- *Patient Location In Vehicle*
- *Patient On Anticoagulants*
- *Patient Pregnancy*
- *Pelvic And Genitourinary Assessment*
- *Physical Assessment Organizer*
- *Possible Injury*
- *Preadvival Activation Observation*
- *Primary Destination Hospital Capability*
- *Primary Symptom*
- *Prior AED Use*
- *Prior Aid Vitals*
- *Prior CPR*
- *Procedure*
- *Procedure Complications Observation*
- *Procedure Number Of Attempts Observation*
- *Procedure Patient Response Observation*
- *Procedure Prior Indicator*

- *Procedure Successful Observation*
- *Protocol Age Category*
- *Protocol Observation*
- *Provider Primary Impression*
- *Provider Secondary Impressions*
- *Reason For Choosing Destination Observation*
- *Reason Procedure Not Attempted Observation*
- *Respiratory Rate*
- *Response Beginning Odometer Reading*
- *Response Delay*
- *Response Destination Odometer Reading*
- *Response Ending Odometer Reading*
- *Response Mode Qualifier*
- *Response Mode To Scene*
- *Response Odometer Reading Organizer*
- *Response On Scene Odometer Reading*
- *Return Of Spontaneous Circulation*
- *Scene Delay*
- *Scene Patient Count*
- *Skin Assessment*
- *Stroke Score*
- *Systolic Blood Pressure*
- *Thrombolytic Contraindications*
- *Transport Delay*
- *Transport Method Observation*
- *Transport Mode Observation*
- *Transport Mode Qualifier*
- *Trauma Center Criteria*
- *Turnaround Delay*
- *Unit At Patient Time*
- *Unit Back In Service Time*
- *Unit En Route Time*
- *Unit Left Scene Time*
- *Unit Level Of Care Capability*
- *Unit Notified Time*
- *Unit On Scene Time*
- *Vehicle Impact Area*
- *Vehicle Occupant Safety Equipment*

- *Vital Signs Organizer* |

Abandoned Procedure Reason Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.130]

An explanation of why efforts to conduct a procedure were abandoned

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.130"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11255)
3. **SHALL** contain exactly one [1..1] code (CONF:10512)/@code="ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.1133883.5.4 HL7ActCode) (CONF:10511)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10514), which **SHALL** be selected from ValueSet [ResuscitationDiscontinueReason](#) 2.16.840.1.1133883.17.3.11.62 **DYNAMIC** (CONF:10513)
 - NEMESIS Trace: EArrest.16 (Reason CPR/resuscitation discontinued)

Abdomen Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.117]

Qualitative assessment of condition of patient's abdomen

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.117"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11234)
3. **SHALL** contain exactly one [1..1] code/@code="67530-6" *Physical findings of Abdomen NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10387)
4. **SHALL** contain exactly one [1..1] effectiveTime (CONF:11235)
 - NEMESIS Trace: EExam.03
5. **SHALL** contain zero or more [0..*] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [AbdomenAssessmentFinding](#) 2.16.840.1.1133883.17.3.11.31 **DYNAMIC** (CONF:10388)
 - NEMESIS Trace: EExam.11
6. **SHALL** contain zero or one [0..1] targetSiteCode, which **SHALL** be selected from ValueSet [AbdominalFindingLocation](#) 2.16.840.1.1133883.17.3.11.32 **DYNAMIC** (CONF:10389)
 - NEMESIS Trace: EExam.10

Advance Directive Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.98]

Whether an advance directive exists and how it is expressed

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.98"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11152)

3. **SHALL** contain exactly one [1..1] **code**/**@code**="67516-5" *Advance directive NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10194)
 - *NEMESIS Trace: EHistory:05*
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11153), which **SHALL** be selected from ValueSet *AdvanceDirectiveType* 2.16.840.1.113883.17.3.11.63 **DYNAMIC** (CONF:11154)

Adverse Event Indicator

[Observation: templateId 2.16.840.1.113883.17.3.10.1.89]

Indication of whether an adverse event occurred involving EMS personnel

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.89"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11204)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10705)/**@code**="67554-6" *Work related exposure, injury, or death Provider NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10706)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10707)
 - *NEMESIS Trace: EOther:05*

Adverse Event Type Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.90]

Kind of adverse event involving EMS personnel

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.90"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11205)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10710)/**@code**="67555-3" *Work related exposure, injury, or death Provider NEMESIS type* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10709)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10711), which **SHALL** be selected from ValueSet *ProviderAdverseEventType* 2.16.840.1.113883.17.3.11.72 **DYNAMIC** (CONF:10712)
 - *NEMESIS Trace: EOther:06*

Airbag Deployment Status

[Observation: templateId 2.16.840.1.113883.17.3.10.1.57]

Airbag presence, deployment, and location

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.57"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11162)

3. **SHALL** contain exactly one [1..1] **code/@code="67500-9"** *Airbag deployment NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10126)
4. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD" (CONF:11163), which **SHALL** be selected from ValueSet *AirbagStatus* 2.16.840.1.113883.17.3.11.8 **DYNAMIC** (CONF:10127)
 - *NEMESIS Trace: EInjury.08*

Airway Confirmation Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.175]

Whether airway placement was confirmed, including time and method

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.175"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11261)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10542)/**@code="71576-3"** *Airway device placement confirmation NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10541)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10546)
 - *NEMESIS Trace: EAirway.02. If the confirmation is negated, this SHALL be "NA."*
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="BL" (CONF:10545)
 - *NEMESIS Trace: if EAirway.02 is populated, this is TRUE*
6. **SHALL** contain exactly one [1..1] **methodCode** (CONF:10544), which **SHALL** be selected from ValueSet *AirwayDeviceConfirmationMethod* 2.16.840.1.113883.17.3.11.60 **DYNAMIC** (CONF:10543)
 - *NEMESIS Trace: EAirway.04*

Arrest Rhythm

[Observation: templateId 2.16.840.1.113883.17.3.10.1.127]

First measurement of cardiac rhythm during or shortly after cardiac arrest

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.127"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11251)
3. **SHALL** contain exactly one [1..1] **code/@code="67512-4"** *First monitored rhythm NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10179)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet *FirstMonitoredRhythm* 2.16.840.1.113883.17.3.11.14 **DYNAMIC** (CONF:10180)
 - *NEMESIS Trace: EArrest.11*

Back And Spine Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.119]

Qualitative assessment of condition of patient's back and spine

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.119"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11238)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10394)/**@code**="67532-2" *Physical findings of Back +Spine NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10393)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11239)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:10397), which **SHALL** be selected from ValueSet *BackSpineAssessmentFinding* 2.16.840.1.1133883.17.3.11.34 **DYNAMIC** (CONF:10398)
 - *NEMESIS Trace: EExam.14*
6. **SHALL** contain zero or one [0..1] **targetSiteCode** (CONF:10396), which **SHALL** be selected from ValueSet *BackSpineFindingLocation* 2.16.840.1.1133883.17.3.11.35 **DYNAMIC** (CONF:10395)
 - *NEMESIS Trace: EExam.13*

Barriers To Patient Care

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.83]

Kinds of circumstances limiting provision of care

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.83"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11196)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10435)/**@code**="67515-7" *Barriers to patient care NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10436)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10437), which **SHALL** be selected from ValueSet *BarrierToCare* 2.16.840.1.1133883.17.3.11.85 **DYNAMIC** (CONF:10438)
 - *NEMESIS Trace: EHistory.01*

Billing Condition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.91]

Patient condition classified by billing category

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.91"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11207)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10084)/**@code**="67556-1" *EMS condition code NEMESIS (Billing condition)* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10086)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10087), which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:11206)

- *NEMESIS Trace: EPayment.51*

Blood Glucose

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.166]

Patient blood glucose measured as a mass concentration

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.166"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11303)
3. **SHALL** contain exactly one [1..1] code (CONF:10300)/@code="2339-0" *Glucose [Mass/?volume] in Blood* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10299)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11304)
 - *NEMESIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:10301)
 - *NEMESIS Trace: EVitals.18*
UCUM units will typically be "mg/dl".

Body Temperature

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.176]

Patient's body temperature

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.176"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11278)
3. **SHALL** contain exactly one [1..1] code/@code="8310-5" *Body temperature* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10289)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11279)
 - *NEMESIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:10290)
 - *NEMESIS Trace: EVitals.24*
UCUM units SHOULD be "Cel".

Call Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.38]

Time at which the public safety answering point call center is notified of an emergency

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.38"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11143)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10835)/**@code**="69469-5" *911 call to public safety answering point or other designated entity requesting EMS services [Date and time] Facility NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10834)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10836)
 - *NEMSIS Trace: ETimes.01*

Candidate Patient Registry Type

[Observation: templateId 2.16.840.1.113883.17.3.10.1.94]

Kind of patient registry in which it may be appropriate to include the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.94"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11210)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10728)/**@code**="67553-8" *Condition indicating eligibility for illness or injury registry NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10729)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10730), which **SHALL** be selected from ValueSet *RegistryType* 2.16.840.1.113883.17.3.11.74 **DYNAMIC** (CONF:10731)
 - *NEMSIS Trace: EOther.02*

Carbon Dioxide

[Observation: templateId 2.16.840.1.113883.17.3.10.1.168]

Measurement of end tidal carbon dioxide

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.168"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11307)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10294)/**@code**="19889-5" *Carbon dioxide/Gas.total.at end expiration in Exhaled gas* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10293)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11308)
 - *NEMSIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10295)
 - *NEMSIS Trace: EVitals.16*
UCUM units will typically be "%".

Carbon Monoxide

[Observation: templateId 2.16.840.1.113883.17.3.10.1.167]

Measurement of carbon monoxide in patient's bloodstream

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.167"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11305)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10297)/**@code**="20563-3" *Carboxyhemoglobin/? Hemoglobin.total in Blood* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10296)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11306)
 - *NEMESIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10298)
 - *NEMESIS Trace: EVitals.17*
UCUM units will typically be "%".

Cardiac Arrest

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.27]

Characteristics of a patient's cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.27"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11130)
3. **SHOULD** contain zero or one [0..1] **@negationInd** (CONF:10141)
 - *Populate as true if NEMESIS EArrest.01 = "No"*
4. **SHALL** contain exactly one [1..1] **code**/**@code**="ASSERTION" *ASSERTION* (CodeSystem: 2.16.840.1.1133883.5.4 HL7ActCode) (CONF:10138)
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:10139)
 - *NEMESIS Trace: EArrest.14*
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD"/**@code**="410429000" *cardiac arrest* (CodeSystem: 2.16.840.1.1133883.6.96 SNOMEDCT) (CONF:10140)
 - *NEMESIS Trace: EArrest.01*
7. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10142)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10154)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10155)
 - c. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Cardiac Arrest Cause* (CONF:10941)
8. **SHALL** contain at least one [1..*] **informant** (CONF:10144)
 - a. Such informants **SHALL** contain exactly one [1..1] **@typeCode**="INF" (CONF:10158)
 - b. Such informants **SHALL** contain exactly one [1..1] **relatedEntity** (CONF:11071)
 - a. This relatedEntity **SHALL** contain exactly one [1..1] **@classCode**="AGNT" (CONF:10159)
 - b. This relatedEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet *CardiacArrestWitnessRole* 2.16.840.1.1133883.17.3.11.11 **DYNAMIC** (CONF:10160)
 - *NEMESIS Trace: EArrest.04*
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10145)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10161)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10162)

- c. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Prior CPR* (CONF:10942)
- 10. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10146)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd="TRUE"** (CONF:10168)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:10169)
 - c. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Prior AED Use* (CONF:10170)
- 11. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:10147)
 - a. Such entryRelationships **SHALL** contain exactly one [1..1] **@inversionInd="TRUE"** (CONF:10181)
 - b. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:10182)
 - c. Such entryRelationships **SHALL** contain exactly one [1..1] **observation**, where its type is *Return Of Spontaneous Circulation* (CONF:10183)
- 12. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:10148)
 - a. Such entryRelationships **SHALL** contain exactly one [1..1] **@inversionInd="TRUE"** (CONF:10186)
 - b. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:10187)
 - c. Such entryRelationships **SHALL** contain exactly one [1..1] **observation**, where its type is *Destination Rhythm* (CONF:10188)
- 13. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:11072)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd="TRUE"** (CONF:10176)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:10177)
 - c. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Arrest Rhythm* (CONF:10178)
- 14. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:11377)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd="TRUE"** (CONF:10149)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CONF:10151)
 - c. This entryRelationship contains zero or more [0..*] **observation**, where its type is *Cardiac Arrest Timing*
- 15. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:11332)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:11333)
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Cardiac Arrest Outcome* (CONF:11334)

Cardiac Arrest Cause

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.124]

Kind of event or condition causing cardiac arrest

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.1133883.17.3.10.1.124"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11246)
3. **SHALL** contain exactly one [1..1] **code/@code="67503-3"** *Cardiac arrest cause NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10156)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, which **SHALL** be selected from ValueSet *CardiacArrestCause* 2.16.840.1.1133883.17.3.11.10 **DYNAMIC** (CONF:10157)
 - *NEMESIS Trace: EArrest.02*

Cardiac Arrest Outcome

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.184]

How the arrest was resolved in the experience of the EMS crew

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.184"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11376)
3. **SHALL** contain exactly one [1..1] code (CONF:11350)/@code="77152-7" *Cardiac arrest event outcome* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:11351)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [CardiacArrestOutcome](#) 2.16.840.1.1133883.17.3.11.101 **STATIC** (CONF:11352)
 - NEMESIS trace: eArrest.18 (end of arrest event)

Cardiac Arrest Outcome example

```
Error: Missing Runtime Class
```

Cardiac Arrest Timing

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.123]

Whether a cardiac arrest occurred before or after arrival of EMS crew

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.123"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11245)
3. **SHALL** contain exactly one [1..1] code/@code="67502-5" *Cardiac arrest NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10152)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [CardiacArrestTiming](#) 2.16.840.1.1133883.17.3.11.91 **DYNAMIC** (CONF:10153)
 - NEMESIS Trace: EArrest.01

Cardiac Rhythm

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.169]

Patient's cardiac rhythm classification

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.169"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11309)
3. **SHALL** contain exactly one [1..1] code (CONF:10275)/@code="67519-9" *Cardiac rhythm NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10274)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11310)

- *NEMESIS Trace: EVitals.01*
- 5. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD" (CONF:10278), which **SHALL** be selected from ValueSet *CardiacRhythmReading* 2.16.840.1.113883.17.3.11.16 **DYNAMIC** (CONF:10279)
 - *NEMESIS Trace: EVitals.03*
- 6. **SHALL** contain at least one [1..*] **methodCode** (CONF:10277), which **SHALL** be selected from ValueSet *MethodOfECGInterpretation* 2.16.840.1.113883.17.3.11.20 **DYNAMIC** (CONF:10276)
 - *NEMESIS Trace: EVitals.05*
- 7. **SHALL** contain exactly one [1..1] **participant** {subsets Observation::participant} (CONF:11127)
 - a. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:11128)
 - a. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:11129)
 - a. This playingDevice contain zero or one [0..1] **@classCode**="DEV"
 - b. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:11311), which **SHALL** be selected from ValueSet *ECGType* 2.16.840.1.113883.17.3.11.19 **DYNAMIC** (CONF:11312)
 - c. This playingDevice contain zero or one [0..1] **@determinerCode**="INSTANCE"

NEMESIS Trace: EVitals.04

Chest And Lungs Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.115]

Qualitative assessment of condition of patient's chest and lungs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.115"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11230)
3. **SHALL** contain exactly one [1..1] **code/@code**="67528-0" *Physical findings of Chest+Lungs NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10381)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11231)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet *ChestLungAssessmentFinding* 2.16.840.1.113883.17.3.11.29 **DYNAMIC** (CONF:10382)
 - *NEMESIS Trace: EExam.08*

Complaint

[Observation: templateId 2.16.840.1.113883.17.3.10.1.63]

Statement of the problem by the patient or provider, including duration, system, and whether it is the chief complaint

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.63"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11169)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10768)/**@code**="10154-3" *Chief complaint Narrative - Reported* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10769)

4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11170)
 - *effectiveTime.low = NEMESIS Trace: ESituation.01*
5. **MAY** contain zero or one [0..1] **value** with @xsi:type="ST" (CONF:10770)
 - *NEMESIS Trace: ESituation.04*
6. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:10771)
 - a. This entryRelationship contain exactly one [1..1] **observation**, where its type is *Complaint Duration*
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:10772)
 - a. This entryRelationship contains at least one [1..*] **observation**, where its type is *Complaint Type*
8. **SHALL** contain exactly one [1..1] **targetSiteCode** (CONF:10773), which **SHALL** be selected from ValueSet *AnatomicLocation* 2.16.840.1.113883.17.3.11.76 **DYNAMIC** (CONF:10774)
 - *NEMESIS Trace: ESituation.07*
Complaint site is required if complaint is type "Chief complaint"
9. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:10775)

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

 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Complaint Organ System* (CONF:10782)

Complaint Duration

[Observation: templateId 2.16.840.1.113883.17.3.10.1.139]

How long a complaint has lasted

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.139"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11268)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10779)/@code="67491-1" *Duration of chief complaint NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10780)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:10781)
 - *NEMESIS Trace: ESituation.05, 06*
Units SHALL be selected from UCUM time units (i.e., s, min, h, d, wk, mo, a)

Complaint Organ System

[Observation: templateId 2.16.840.1.113883.17.3.10.1.140]

The system that a complaint seems to affect

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.140"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11269)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10784)/@code="69468-7" *Primary anatomic organ system of chief complaint NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10783)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:10786), which **SHALL** be selected from ValueSet *OrganSystem* 2.16.840.1.113883.17.3.11.77 **DYNAMIC** (CONF:10785)

- *NEMESIS Trace: ESituation.08*

Complaint Reported By Dispatch

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.74]

The complaint that dispatch reported to the responding unit

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.74"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11187)
3. **SHALL** contain exactly one [1..1] code (CONF:10568)/@code="67570-2" *Chief complaint per dispatch Reported.dispatch* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10569)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10571), which **SHALL** be selected from ValueSet *Complaint* 2.16.840.1.1133883.17.3.11.49 **DYNAMIC** (CONF:10570)
 - *NEMESIS Trace: EDispatch.01*

Complaint Type

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.138]

Whether a complaint is a chief complaint

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.138"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11266)
3. **SHALL** contain exactly one [1..1] code (CONF:10777)/@code="72114-2" *Complaint NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10776)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10778), which **SHALL** be selected from ValueSet *Complaint Type* 2.16.840.1.1133883.17.3.11.94 **DYNAMIC** (CONF:11267)
 - *NEMESIS Trace: ESituation.03*

Current Medication

[SubstanceAdministration: templateId 2.16.840.1.1133883.17.3.10.1.77]

A medication a patient is currently taking

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.77"
2. **MAY** contain zero or one [0..1] @negationInd (CONF:10233)
 - *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"
3. **MAY** contain zero or one [0..1] @nullFlavor (CONF:10234)
 - *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"

4. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:10230)
 - *NEMESIS Trace: EHistory.13, EHistory.14*
5. **SHOULD** contain zero or one [0..1] **routeCode** (CONF:10232), which **SHALL** be selected from ValueSet [MedicationAdministrationRoute](#) 2.16.840.1.113883.17.3.11.43 **DYNAMIC** (CONF:10231)
 - *NEMESIS Trace: EHistory.15*
6. **SHALL** contain exactly one [1..1] **consumable** (CONF:10235)
 - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:10236)
 - a. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:10237)
 - a. This manufacturedMaterial **SHALL** contain zero or one [0..1] **code** (CONF:11191), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm) (CONF:11190)

Currently On Medication

[Observation: templateId 2.16.840.1.113883.17.3.10.1.75]

Whether a patient is currently taking medication

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.75"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11188)
3. **SHALL** contain exactly one [1..1] **code/@code**="67791-4" *Does the patient take any medications NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10224)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10225)
 - *If EHistory.12 has the value "None Reported," the value is "False"*
If EHistory.12 has the value "Refused" or "Unable to Complete," the value is "NI"; the original value may be recorded in Observation.text.

Delay Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.95]

Kinds of delays experienced by a responder

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.95"
2. **SHALL** contain exactly one [1..1] **component** (CONF:10583)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Dispatch Delay](#) (CONF:10588)

NEMESIS Trace: EResponse.08
3. **SHALL** contain exactly one [1..1] **component** (CONF:10584)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Response Delay](#) (CONF:10593)

4. **SHALL** contain exactly one [1..1] **component** (CONF:10585)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Scene Delay* (CONF:10598)
5. **SHALL** contain exactly one [1..1] **component** (CONF:10586)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Transport Delay* (CONF:10603)
6. **SHALL** contain exactly one [1..1] **component** (CONF:10587)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Turnaround Delay* (CONF:10608)

Destination Rhythm

[Observation: templateId 2.16.840.1.113883.17.3.10.1.129]

Patient's cardiac rhythm classification at destination

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.129"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11254)
3. **SHALL** contain exactly one [1..1] **code/@code**="67519-9" *Cardiac rhythm NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10189)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *CardiacRhythmReading* 2.16.840.1.113883.17.3.11.16 **DYNAMIC** (CONF:10190)
 - *NEMESIS Trace: EArrest.17*

Destination Ward

[Observation: templateId 2.16.840.1.113883.17.3.10.1.186]

The location within the hospital that the patient was taken directly by EMS

| Contained By | Contains |
|--------------------------------|----------|
| <i>EMS Disposition Section</i> | |

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.186"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:11363)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11380)
4. **SHALL** contain exactly one [1..1] **code** (CONF:11364)/**@code**="77154-3" *Hospital inpatient destination* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11365)
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *DestinationWardKind* 2.16.840.1.113883.17.3.11.103 **STATIC** (CONF:11366)
 - *NEMESIS trace: eDisposition.22 (Hospital In-Patient Destination)*

Destination Ward example

```
Error: Missing Runtime Class
```

Diastolic Blood Pressure

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.144]

Patient's diastolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.144"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11272)
3. **SHALL** contain exactly one [1..1] **code/@code**="8462-4" *Diastolic blood pressure* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10282)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11273)
 - *NEMESIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10283)
 - *NEMESIS Trace: EVitals.07*
UCUM units SHOULD be "mm[Hg]".
6. **SHALL** contain exactly one [1..1] **methodCode** (CONF:11346), which **SHALL** be selected from ValueSet [BloodPressureMeasurementMethod](#) 2.16.840.1.1133883.17.3.11.107 **STATIC** (CONF:11347)
 - *NEMESIS Trace: eVitals.08 (method of blood pressure measurement)*

Disaster Type

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.159]

Kind of disaster causing or contributing to the patient's complaint

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.159"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11166)
3. **SHALL** contain exactly one [1..1] **code/@code**="69463-8" *Suspected intentional or unintentional disaster NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10132)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet [DisasterType](#) 2.16.840.1.1133883.17.3.11.9 **DYNAMIC** (CONF:10133)
 - *NEMESIS Trace: EOther.07*

Dispatch Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.153]

Causes of delay to the dispatch process

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.153"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11286)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10590)/**@code**="67480-4" *Dispatch delay NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10589)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10592), which **SHALL** be selected from ValueSet *DispatchDelayType* 2.16.840.1.1133883.17.3.11.50 **DYNAMIC** (CONF:10591)
 - *NEMSIS Trace: EResponse.08*

Dispatch Location Latitude

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.151]

Latitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.151"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11284)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="52002-3" *Ambulance transport, Destination site latitude coordinate* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10620)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10621)
 - *NEMSIS Trace: EResponse.17*
UCUM units SHOULD be "deg". This may require conversion from a parsed "degree + minutes" representation to a decimal representation.

Dispatch Location Longitude

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.152]

Longitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.152"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11285)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="52003-1" *Ambulance transport, Destination site longitude coordinate* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10623)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10624)
 - *NEMSIS Trace: EResponse.17*
UCUM units SHOULD be "deg". This may require conversion from a parsed "degree + minutes" representation to a decimal representation.

Dispatch Location Name

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.150]

The name or ID of the dispatch center requesting service from the EMS agency

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.150"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11283)
3. **SHALL** contain exactly one [1..1] **code/@code**="69466-1" *Vehicle location Vehicle NEMSIS --at dispatch* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10617)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="ST" (CONF:10618)
 - *NEMSIS Trace: EResponse.16*

Dispatch Location Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.96]

Information about the location of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.96"
2. **MAY** contain zero or one [0..1] **component** (CONF:10613)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Dispatch Location Name* (CONF:10616)
3. **MAY** contain zero or one [0..1] **component** (CONF:10614)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Dispatch Location Latitude* (CONF:10619)
4. **MAY** contain zero or one [0..1] **component** (CONF:10615)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Dispatch Location Longitude* (CONF:10622)

Dispatch Notified Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.46]

The time the dispatching organization was notified of an emergency

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.46"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11151)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10867)/**@code**="69470-3" *Dispatch was notified by the 911 call taker [Date and time] Facility NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10866)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10868)
 - *NEMSIS Trace: ETimes.02*

Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.48]

An allergy or sensitivity to a drug.

This statement follows the pattern of the Consolidated allergy observation, without the intervening "problem act" class.

In this observation, as the Consolidated guide specifies, the code is "ASSERTION," and the value selected from 2.16.840.1.1133883.3.88.12.3221.6.2. In this case, the value should be 416098002 (Drug allergy (disorder)), System = SNOMED CT, 2.16.840.1.1133883.6.5.

The drug, to be placed in the participating product, is encoded in RxNorm.

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.48"
 2. contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood)
 3. **SHALL** contain exactly one [1..1] **participant** {subsets Act::participant} (CONF:11126)
 - a. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:10208)
 - a. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:10209)
 - a. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.88 RxNorm) (CONF:11320)
- NEMESIS Trace: EHistory.06*
4. **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *ASSERTION* (CodeSystem: 2.16.840.1.1133883.5.4 ActCode) (CONF:11340)
 5. **SHALL** contain exactly one [1..1] **value1** with **@xsi:type**="CD"/**@code**="416098002" *Drug allergy (disorder)* (CodeSystem: 2.16.840.1.1133883.6.96 SNOMEDCT) (CONF:11341)

Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.183]

This organizer contains a set of discrete drug allergy observations or an assertion that there are no such allergies.

| Contained By | Contains |
|---|---|
| EMS Allergies And Adverse Reactions Section | Drug Allergy |
| | Existence Of Drug Allergy Observation |

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.183"
2. **MAY** contain [0..*] **component** (CONF:11323)
 - a. Contains exactly one [1..1] [Drug Allergy](#) (templateId: 2.16.840.1.1133883.17.3.10.1.48)
3. **SHALL** contain [1..1] **component** (CONF:11324)
 - a. Contains exactly one [1..1] [Existence Of Drug Allergy Observation](#) (templateId: 2.16.840.1.1133883.17.3.10.1.102)

Drug Allergy Organizer example

Error: Missing Runtime Class

Drug Use Indication

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.71]

Evidence that a patient has been using alcohol or illicit drugs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.71"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11179)
3. **SHALL** contain exactly one [1..1] code/@code="67669-2" *Alcohol - drug use NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10250)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [AlcoholDrugUseIndicator](#) 2.16.840.1.1133883.17.3.11.18 **DYNAMIC** (CONF:10251)
 - *NEMESIS Trace: EHistory.17, proper values*

Emergency Medical Dispatch Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.73]

Whether and how emergency medical dispatch was performed

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.73"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11186)
3. **SHALL** contain exactly one [1..1] code (CONF:10564)/@code="67488-7" *Emergency medical dispatch performed NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10563)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10566), which **SHALL** be selected from ValueSet [EMDPerformed](#) 2.16.840.1.1133883.17.3.11.48 **DYNAMIC** (CONF:10565)
 - *NEMESIS Trace: EDispatch.02*

Existence Of Drug Allergy Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.102]

Indicator of whether patient has any allergies or sensitivities to drugs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.102"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11213)
3. **SHALL** contain exactly one [1..1] code/@code="67794-8" *Does the patient have any medication allergies NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10203)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="BL" (CONF:10204)

- If NEMESIS 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 NEMESIS flavors into HL7; original values may be stored in Observation.text.

Existence Of Drug Use Indication

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.70]

Indicator of whether there are indications of alcohol or illicit drug use

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.70"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11177)
3. **SHALL** contain exactly one [1..1] code (CONF:10248)/@code="69757-3" Indications of drug or alcohol use by the patient NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10247)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="BL" (CONF:11178)
 - NEMESIS Trace: EHistory.17, positive, negative, or null values

Existence Of History Of Condition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.60]

Indicator of whether patient has a history of significant medical conditions

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.60"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11167)
3. **SHALL** contain exactly one [1..1] code/@code="67793-0" Has the patient had any significant medical conditions NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10067)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="BL" (CONF:10068)
 - If NEMESIS EHistory.08 is "Refused " or "Unable to Complete," the value should be "NI"; the original value may be recorded in Observation.text.
 - If NEMESIS EHistory.08 is "None Reported," the value should be FALSE.
 - If NEMESIS EHistory.08 has proper values, the value should be TRUE.

Existence Of Non Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.103]

Indicator of whether patient has any allergies or sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.103"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11214)

3. **SHALL** contain exactly one [1..1] **code/@code**="69747-4" *Does the patient have any environmental allergies NEMESIS (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10214)*
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10215)
 - *If NEMESIS EHistory.07 has no values, this is FALSE; otherwise it is TRUE.*

Extremities Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.120]

Qualitative assessment of condition of patient's extremities

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.120"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11240)*
3. **SHALL** contain exactly one [1..1] **code** (CONF:10399)/**@code**="67533-0" *Physical findings of Extremity NEMESIS (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10400)*
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11241)
 - *NEMESIS Trace: EExam.03*
5. **SHOULD** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:11385), which **SHALL** be selected from ValueSet [ExtremitiesAssessmentFinding](#) 2.16.840.1.113883.17.3.11.36 **DYNAMIC** (CONF:10403)
 - *NEMESIS Trace: EExam.16*
6. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:10402), which **SHALL** be selected from ValueSet [ExtremityFindingLocation](#) 2.16.840.1.113883.17.3.11.37 **DYNAMIC** (CONF:10401)
 - *NEMESIS Trace: EExam.15*

Eye Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.121]

Qualitative assessment of condition of patient's eyes

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.121"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11242)*
3. **SHALL** contain exactly one [1..1] **code** (CONF:10405)/**@code**="67534-8" *Physical findings of Eye NEMESIS (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10404)*
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11243)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:10408), which **SHALL** be selected from ValueSet [EyeAssessmentFinding](#) 2.16.840.1.113883.17.3.11.38 **DYNAMIC** (CONF:10409)
 - *NEMESIS Trace: EExam.18*
6. **SHALL** contain zero or one [0..1] **targetSiteCode** (CONF:10406), which **SHALL** be selected from ValueSet [EyeFindingLocation](#) 2.16.840.1.113883.17.3.11.39 **DYNAMIC** (CONF:10407)
 - *NEMESIS Trace: EExam.17*

Face Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.112]

Qualitative assessment of condition of patient's face

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.112"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11224)
3. **SHALL** contain exactly one [1..1] code (CONF:10376)/@code="67526-4" *Physical findings of Face NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10375)
4. **SHALL** contain exactly one [1..1] effectiveTime (CONF:11225)
 - NEMESIS Trace: EExam.03
5. **SHALL** contain at least one [1..*] value with @xsi:type="CD" (CONF:10377), which **SHALL** be selected from ValueSet *FaceAssessmentFinding* 2.16.840.1.113883.17.3.11.27 **DYNAMIC** (CONF:10378)
 - NEMESIS Trace: EExam.06

First Unit Indicator

[Observation: templateId 2.16.840.1.113883.17.3.10.1.84]

Indicator of whether reporter of PCR is the first unit to arrive at the scene

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.84"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11197)
3. **SHALL** contain exactly one [1..1] code (CONF:10741)/@code="67481-2" *First EMS unit on scene NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10742)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="BL" (CONF:10743)
 - NEMESIS Trace: EScene.01

Glasgow Coma Score Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.170]

Collection of Glasgow Coma Score observations

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.170"
2. **SHALL** contain [1..1] component (CONF:10313)
 - a. Contains exactly one [1..1] *Glasgow Eye* (templateId: 2.16.840.1.113883.17.3.10.1.160)
3. **SHALL** contain [1..1] component (CONF:10314)
 - a. Contains exactly one [1..1] *Glasgow Motor* (templateId: 2.16.840.1.113883.17.3.10.1.192)
4. **MAY** contain [0..*] component (CONF:10315)

- a. Contains exactly one [1..1] *Glasgow Qualifier* (templateId: 2.16.840.1.1133883.17.3.10.1.159)
- 5. **SHOULD** contain [0..1] **component** (CONF:10316)
 - a. Contains exactly one [1..1] *Glasgow Total* (templateId: 2.16.840.1.1133883.17.3.10.1.158)
- 6. **SHALL** contain [1..1] **component** (CONF:10317)
 - a. Contains exactly one [1..1] *Glasgow Verbal* (templateId: 2.16.840.1.1133883.17.3.10.1.162)
- 7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11313)
 - *NEMESIS Trace: EVitals.01*

Glasgow Eye

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.160]

Glasgow Coma eye score

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.160"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11294)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10325)/**@code**="9267-6" *Glasgow coma score. eye opening* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10324)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10326)
 - *NEMESIS Trace: EVitals.19*

Glasgow Motor

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.192]

Glasgow Coma motor score

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.192"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11295)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10328)/**@code**="9268-4" *Glasgow coma score. motor* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10329)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10330)
 - *NEMESIS Trace: EVitals. 21*

Glasgow Qualifier

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.159]

Qualifier for Glasgow Coma score

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.159"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11292)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10322)/**@code**="55285-1" *Glasgow coma score special circumstances* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10321)
4. **MAY** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:10323), which **SHALL** be selected from ValueSet [GlasgowComaScoreSpecialCircumstances](#) 2.16.840.1.113883.17.3.11.89 **DYNAMIC** (CONF:11293)
 - *NEMESIS Trace: EVitals.22*

Glasgow Total

[Observation: templateId 2.16.840.1.113883.17.3.10.1.158]

Total Glasgow Coma score

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.158"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11291)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10319)/**@code**="9269-2" *Glasgow coma score.total* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10318)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10320)
 - *NEMESIS Trace: EVitals.23*
Integer value equal to the sum of verbal, motor, and eye

Glasgow Verbal

[Observation: templateId 2.16.840.1.113883.17.3.10.1.162]

Glasgow Coma verbal score

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.162"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11296)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10332)/**@code**="9270-0" *Glasgow coma score.verbal* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10333)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10334)
 - *NEMESIS Trace: EVitals.20*

Head Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.113]

Qualitative assessment of condition of patient's head

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.113"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11226)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10373)/**@code**="67525-6" *Physical findings of Head NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10372)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11227)
 - *NEMSIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet [HeadAssessmentFinding](#) 2.16.840.1.113883.17.3.11.26 **DYNAMIC** (CONF:10374)
 - *NEMSIS Trace: EExam.05*

Heart Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.116]

Qualitative assessment of condition of patient's heart

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.116"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11232)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10384)/**@code**="67529-8" *Physical findings of Heart NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10383)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11233)
 - *NEMSIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10385), which **SHALL** be selected from ValueSet [HeartAssessmentFinding](#) 2.16.840.1.113883.17.3.11.30 **DYNAMIC** (CONF:10386)
 - *NEMSIS Trace: EExam.09*

Heart Rate

[Observation: templateId 2.16.840.1.113883.17.3.10.1.145]

Measurement of rate of heartbeat

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.145"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11274)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10285)/**@code**="8867-4" *Heart rate* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10284)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11275)
 - *NEMSIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10286)
 - *NEMSIS Trace: EVitals.10*
UCUM units SHOULD be "/min".

Height Of Fall

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.58]

Distance patient fell, if injury is fall-related

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.58"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11164)
3. **SHALL** contain exactly one [1..1] code/@code="67501-7" *Height of fall NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10129)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:11165)
 - *NEMESIS Trace: EInjury.09*
Units SHOULD be in feet ('ft_i')

History Of Condition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.61]

Medical conditions the patient has or has had

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.61"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11168)
3. **SHALL** contain exactly one [1..1] code (CONF:10070)/@code="68487-8" *Medical - surgical history - ICD-9 and 10 codes* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10069)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10072), which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:10071)
 - *NEMESIS Trace: EHistory.08*
If NEMESIS EHistory.08 is "No bleeding disorder," the value should be the appropriate ICD-10 code (D66, D67, D68) and negationIndicator should be TRUE.

Incident Disposition Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.32]

Outcome of incident, including disposition of patient and other outcomes

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.32"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11137)
3. **SHALL** contain exactly one [1..1] code (CONF:10669)/@code="67548-8" *Incident - patient disposition NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10668)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10670), which **SHALL** be selected from ValueSet [IncidentOutcome](#) 2.16.840.1.1133883.17.3.11.64 **DYNAMIC** (CONF:10671)
 - *NEMESIS Trace: EDisposition.12*

Initial Patient Acuity

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.69]

Patient condition indicating urgency of treatment on arrival at patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.69"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11176)
3. **SHALL** contain exactly one [1..1] code (CONF:10816)/@code="67493-7" *Initial patient acuity NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10817)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10818), which **SHALL** be selected from ValueSet *PatientCondition* 2.16.840.1.1133883.17.3.11.59 **DYNAMIC** (CONF:10819)
 - *NEMESIS Trace: ESituation.13*

Injury Cause Category

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.50]

The category of the reported/suspected external cause of the injury

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.50"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11155)
3. **SHALL** contain exactly one [1..1] code/@code="69543-7" *Cause of injury NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10106)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:10108)
 - *NEMESIS Trace: EInjury.01*
Causes are in ICD-10 chapter XX

Injury Mechanism

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.51]

General classification of physical force causing injury

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.51"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11156)
3. **SHALL** contain exactly one [1..1] code/@code="67494-5" *General mechanism of the forces which caused the injury NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10109)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD", which **SHALL** be selected from ValueSet *MechanismOfInjury* 2.16.840.1.1133883.17.3.11.1 **DYNAMIC** (CONF:10110)
 - *NEMESIS Trace: EInjury.02*

Injury Risk Factor

[Observation: templateId 2.16.840.1.113883.17.3.10.1.53]

Factors predictive of need for trauma center care

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.53"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11158)
3. **SHALL** contain exactly one [1..1] code (CONF:11383)/@code="67496-0" *Other injury risk factors NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10114)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD" (CONF:11382), which **SHALL** be selected from ValueSet *InjuryRiskFactor* 2.16.840.1.113883.17.3.11.4 **DYNAMIC** (CONF:10115)
 - *NEMESIS Trace: EInjury.04*

Last Oral Intake

[Observation: templateId 2.16.840.1.113883.17.3.10.1.80]

Time of patient's last oral intake

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.80"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11193)
3. **SHALL** contain exactly one [1..1] code (CONF:10423)/@code="67517-3" *Last oral intake [Date and time] NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10424)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="TS" (CONF:10425)
 - *NEMESIS Trace: EHistory.19*

Length Based Patient Body Weight Class

[Observation: templateId 2.16.840.1.113883.17.3.10.1.110]

Classification of patient weight based on length

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.110"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11221)
3. **SHALL** contain exactly one [1..1] code (CONF:10366)/@code="67670-0" *Length-based tape measure category NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10365)
4. **SHALL** contain exactly one [1..1] effectiveTime (CONF:11222)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet *LengthBasedWeightClass* 2.16.840.1.113883.17.3.11.24 **DYNAMIC** (CONF:10367)

- *NEMESIS Trace: EExam.02.*

Note: a license is required to implement the Broselow-Luten measure.

Level Of Responsiveness

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.165]

Patient's responsiveness

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.165"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11301)
3. **SHALL** contain exactly one [1..1] code (CONF:10303)/@code="67775-7" *Level of responsiveness NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10302)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11302)
 - *NEMESIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10305), which **SHALL** be selected from ValueSet *LevelOfResponsiveness* 2.16.840.1.1133883.17.3.11.21 **DYNAMIC** (CONF:10304)
 - *NEMESIS Trace: EVitals.26*

Level Of Service Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.92]

CMS classification of service level for billing purposes

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.92"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11208)
3. **SHALL** contain exactly one [1..1] code (CONF:10090)/@code="69464-6" *Centers for medicare - medicaid, CMS, service level NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10091)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10092), which **SHALL** be selected from ValueSet *EMSLevelOfService* 2.16.840.1.1133883.17.3.11.70 **DYNAMIC** (CONF:10093)
 - *NEMESIS Trace: EPayment.50*

Location Type Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.88]

Kind of location where the incident occurred

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.88"
2. **SHALL** contain exactly one [1..1] code/@code="74496-1" *Injury location ICD code* (CodeSystem:) (CONF:11202)

3. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:11387), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:11203)
 - *NEMESIS trace: eScene.09 (Incident location type)*
See NEMESIS recommended subset at <http://nemesis.org/v3/resources.html>. ICD-10 CM contains "place of occurrence of external cause" under code Y92.

Mass Casualty Indicator

[Observation: templateId 2.16.840.1.113883.17.3.10.1.87]

Indicator of whether the patient injury is part of a mass casualty event

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.87"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11200)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10753)/@code="67490-3" *Mass casualty incident NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11201)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="BL" (CONF:10754)
 - *NEMESIS Trace: EScene.07*

Medication Administered

Medication Complication Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.107]

Complications associated with the administration of a medication

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.107"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11218)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10473)/@code="67541-3" *Medication complication NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10474)
4. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD" (CONF:10475), which **SHALL** be selected from ValueSet *MedicationComplication* 2.16.840.1.113883.17.3.11.45 **DYNAMIC** (CONF:10476)
 - *NEMESIS Trace: EMedications.08*

Medication Not Administered Reason Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.105]

Reason for declining to administer a medication

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

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.105"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11216)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.1133883.5.4 HL7ActCode) (CONF:10462)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10463), which **SHALL** be selected from ValueSet *MedicationNotGivenReason* 2.16.840.1.1133883.17.3.11.92 **DYNAMIC** (CONF:10464)
 - *EMedications.03*

Medication Prior Administration Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.108]

Indicator of whether a medication was administered prior to the arrival of the EMS crew

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.108"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11219)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10478)/**@code**="67539-7" *Medication administered prior to this unit's EMS care NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10479)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10480)
 - *NEMESIS Trace: EMedications.02*

Medication Response Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.106]

Whether the patient's condition improved after medication administration

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.106"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11217)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10469)/**@code**="67540-5" *Response to medication NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10470)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11384), which **SHALL** be selected from ValueSet *ChangeInPatientStatus* 2.16.840.1.1133883.17.3.11.78 **DYNAMIC** (CONF:10471)
 - *NEMESIS Trace: EMedications.07*

Mental Status Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.122]

Qualitative assessment of condition of patient's mental status

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.122"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11244)
3. **MAY** contain exactly one [1..1] **code** (CONF:10410)/**@code**="67535-5" *Mental status assessment NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10411)
4. contain exactly one [1..1] **effectiveTime**
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet [MentalStatusFinding](#) 2.16.840.1.113883.17.3.11.84 **DYNAMIC** (CONF:10412)
 - *NEMESIS Trace: EExam.19*

Neck Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.114]

Qualitative assessment of condition of patient's neck

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.114"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11228)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67527-2" *Physical findings of Neck NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10379)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11229)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet [NeckAssessmentFinding](#) 2.16.840.1.113883.17.3.11.28 **DYNAMIC** (CONF:10380)
 - *NEMESIS Trace: EExam.07*

Neurological Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.141]

Qualitative assessment of condition of patient's neurological response

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.141"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11270)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10414)/**@code**="67536-3" *Neurological assessment Nervous system NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10413)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10415), which **SHALL** be selected from ValueSet [NeurologicalAssessmentFinding](#) 2.16.840.1.113883.17.3.11.40 **DYNAMIC** (CONF:10416)
 - *NEMESIS Trace: EExam.20*

Non Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.104]

Patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.104"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11215)
3. **SHALL** contain exactly one [1..1] code/@code="69748-2" *Known allergies to food or environmental agents Narrative NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10216)
 - *Required if Existence is True*
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [NonDrugAllergyType](#) 2.16.840.1.1133883.17.3.11.83 **DYNAMIC** (CONF:10217)
 - *NEMESIS Trace: EHistory.07*

Non Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.49]

Information regarding patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.49"
2. **SHALL** contain [1..1] component (CONF:10212)
 - a. Contains exactly one [1..1] [Existence Of Non Drug Allergy](#) (templateId: 2.16.840.1.1133883.17.3.10.1.103)
3. **MAY** contain [0..*] component (CONF:10213)
 - a. Contains exactly one [1..1] [Non Drug Allergy](#) (templateId: 2.16.840.1.1133883.17.3.10.1.104)

Number Of Patients Transported Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.31]

The number of patients transported by this EMS crew and unit

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.31"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11136)
3. **SHALL** contain exactly one [1..1] code (CONF:10665)/@code="67547-0" *Patients transported in EMS unit [#] NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10664)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:10666)
 - *NEMESIS Trace: eDisposition.11*

Other Symptoms

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.67]

Symptoms other than the primary symptom

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.67"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11174)
3. **SHALL** contain exactly one [1..1] code (CONF:10806)/@code="67776-5" *Other symptoms NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10807)
4. **MAY** contain zero or more [0..*] value with @xsi:type="CD" (CONF:10808), which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:10809)
 - *NEMESIS Trace: ESituation.10*

Oxygen Saturation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.177]

Measurement of the patient's arterial blood oxygen saturation

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.177"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11281)
3. **SHALL** contain exactly one [1..1] code/@code="2708-6" *Oxygen saturation in Arterial blood* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10291)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11348)
5. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:10292)
 - *NEMESIS Trace: EVitals.12*
UCUM units will typically be "%".

Pain Score

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.164]

Assessment of the patient's level of pain

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.164"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11299)
3. **SHALL** contain exactly one [1..1] code/@code="56840-2" *Pain severity verbal numeric scale* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10306)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11300)
 - *NEMESIS Trace: EVitals.01*
5. contain exactly one [1..1] value with @xsi:type="INT"

- *NEMESIS Trace: EVitals.27*
An ordinal value between 0 and 10, inclusive. There are three scales, but the values are equivalent.

Patient Age

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.81]

The age of the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.81"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11194)
3. **SHALL** contain exactly one [1..1] code (CONF:10427)/@code="30525-0" Age (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10428)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:10429)
 - *NEMESIS Trace: EPatient.15, 16*
UCUM units SHOULD be 'min' 'h' 'd' 'wk' 'mo' or 'a'

Patient Arrived At Destination Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.44]

The time the EMS crew delivered the patient to the destination

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.44"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11149)
3. **SHALL** contain exactly one [1..1] code (CONF:10859)/@code="69476-0" Responding unit arrived with the patient at the destination or transfer point [Date and time] Vehicle NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10858)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="TS" (CONF:10860)
 - *NEMESIS Trace: ETimes.11*

Patient Body Weight

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.178]

Patient's body weight

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.178"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11220)
 - *NEMESIS Trace: EExam.03*
3. **SHALL** contain exactly one [1..1] code/@code="8335-2" Body weight Estimated (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10363)

4. contain exactly one [1..1] **effectiveTime**
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:10364)
 - *NEMESIS Trace: EExam.01*
UCUM units should be 'kg'

Patient Condition At Destination Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.37]

Whether the patient's condition had changed on arrival at destination

| Contained By | Contains |
|--------------------------------|----------|
| <i>EMS Disposition Section</i> | |

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.37"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11142)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10694)/**@code**="77941-3" *Final patient acuity NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10693)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:10695), which **SHALL** be selected from ValueSet *PatientCondition* 2.16.840.1.113883.17.3.11.59 **DYNAMIC** (CONF:10696)
 - *NEMESIS Trace: EDisposition.19*

Patient Condition At Destination Observation example

Error: Missing Runtime Class

Patient Location In Vehicle

[Observation: templateId 2.16.840.1.113883.17.3.10.1.55]

Patient's location in a vehicle during a vehicle collision

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.55"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11160)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="67498-6" *Location of patient in vehicle NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10120)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet *VehiclePassengerLocation* 2.16.840.1.113883.17.3.11.6 **DYNAMIC** (CONF:10121)
 - *NEMESIS Trace: EInjury.06*

Patient On Anticoagulants

[Observation: templateId 2.16.840.1.113883.17.3.10.1.76]

Indication of whether patient is on anticoagulant medication

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.76"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11189)
3. **SHALL** contain exactly one [1..1] **code/@code**="69749-0" *Is the patient on anticoagulants NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10227)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10228)
 - *NEMESIS Trace: If EHistory.12 has the value "No anticoagulants," the value is False*

Patient Pregnancy

[Observation: templateId 2.16.840.1.113883.17.3.10.1.79]

Indication of whether the patient is pregnant

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.79"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11192)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10418)/**@code**="67471-3" *Pregnancy* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10419)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10420), which **SHALL** be selected from ValueSet [Pregnancy](#) 2.16.840.1.113883.17.3.11.42 **DYNAMIC** (CONF:10421)
 - *NEMESIS Trace: EHistory.18*

Pelvic And Genitourinary Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.118]

Qualitative assessment of condition of patient's pelvic and genitourinary region

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.118"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11236)
3. **SHALL** contain exactly one [1..1] **code/@code**="67531-4" *Physical findings of Pelvis+Genitourinary NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10390)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11237)
 - *NEMESIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10392), which **SHALL** be selected from ValueSet [PelvisGenitourinaryAssessment](#) 2.16.840.1.113883.17.3.11.33 **DYNAMIC** (CONF:10391)
 - *NEMESIS Trace: EExam.12*

Physical Assessment Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.78]

A collection of qualitative assessments of the patient's physical condition

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.78"
2. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11103)
 - a. This component contains zero or more [0..*] **observation**, where its type is [Skin Assessment](#)
3. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11105)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Head Assessment](#) (CONF:11104)
4. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11342)
 - a. This component contain exactly one [1..1] **observation**, where its type is [Neurological Assessment](#)
5. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11107)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Face Assessment](#) (CONF:11106)
6. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11109)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Neck Assessment](#) (CONF:11108)
7. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11111)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Chest And Lungs Assessment](#) (CONF:11110)
8. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11113)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Heart Assessment](#) (CONF:11112)
9. **MAY** contain zero or more [0..*] **component** {subsets Organizer::component} (CONF:11115)
 - a. Such components **SHALL** contain exactly one [1..1] **observation**, where its type is [Abdomen Assessment](#) (CONF:11114)
10. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11117)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is [Pelvic And Genitourinary Assessment](#) (CONF:11116)
11. **MAY** contain zero or more [0..*] **component** {subsets Organizer::component} (CONF:11119)
 - a. Such components **SHALL** contain exactly one [1..1] **observation**, where its type is [Back And Spine Assessment](#) (CONF:11118)
12. **MAY** contain zero or more [0..*] **component** {subsets Organizer::component} (CONF:11121)
 - a. Such components **SHALL** contain exactly one [1..1] **observation**, where its type is [Extremities Assessment](#) (CONF:11120)
13. **MAY** contain zero or more [0..*] **component** {subsets Organizer::component} (CONF:11123)
 - a. Such components **MAY** contain exactly one [1..1] **observation**, where its type is [Eye Assessment](#) (CONF:11122)
14. **MAY** contain zero or one [0..1] **component** {subsets Organizer::component} (CONF:11125)
 - a. This component **MAY** contain exactly one [1..1] **observation**, where its type is [Mental Status Assessment](#) (CONF:11124)

Possible Injury

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.64]

Indicator of whether a patient may have an injury

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.64"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11171)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10792)/**@code**="69467-9" *Possible injury NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10793)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10794)
 - *NEMESIS Trace: ESituation.02*

Prearrival Activation Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.36]

Indication of whether destination was activated prior to patient arrival

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.36"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11141)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10689)/**@code**="69462-0" *Activation of the destination healthcare facility team NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10688)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10691)
 - *NEMESIS Trace: EDisposition.25*
Required if value is TRUE
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10690)
 - *NEMESIS Trace: EDisposition.24*

Primary Destination Hospital Capability

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.104]

The primary hospital capability associated with the patient's condition for this transport

| Contained By | Contains |
|--------------------------------|----------|
| <i>EMS Disposition Section</i> | |

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.104"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.1133883.5.6 HL7ActClass) (CONF:11357)
3. **SHALL** contain exactly one [1..1] **@moodCode** (CONF:11360)

4. **SHALL** contain exactly one [1..1] **code** (CONF:11358)/@**code**="77155-0" *Hospital designation capability* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11359)
5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:11361), which **SHALL** be selected from ValueSet [PrimaryHospitalCapability](#) 2.16.840.1.113883.17.3.11.104 **STATIC** (CONF:11362)
 - *NEMESIS trace: eDisposition.23 (Hospital Capability)*

Primary Destination Hospital Capability example

Error: Missing Runtime Class

Primary Symptom

[Observation: templateId 2.16.840.1.113883.17.3.10.1.66]

The primary symptom present in the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.66"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11173)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10801)/@**code**="67774-0" *Primary sign and symptom NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10802)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:10803), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:10804)
 - *NEMESIS Trace: ESituation.09*

Prior AED Use

[Observation: templateId 2.16.840.1.113883.17.3.10.1.126]

Indication of whether an automated external defibrillator was used on the patient prior to EMS arrival

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.126"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11249)
3. **SHALL** contain exactly one [1..1] **code**/@**code**="67508-2" *AED use prior to EMS arrival NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10171)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet [AEDUsePriorToEMSArrival](#) 2.16.840.1.113883.17.3.11.13 **DYNAMIC** (CONF:10172)
 - *NEMESIS Trace: EArrest.07*
5. **MAY** contain zero or one [0..1] **participant** (CONF:10173)
 - a. This participant **SHALL** contain exactly one [1..1] @**typeCode**="RESP" (CONF:11250)
 - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:10174)
 - a. This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [PriorCareProviderRole](#) 2.16.840.1.113883.17.3.11.12 **DYNAMIC** (CONF:10175)
 - *NEMESIS Trace: EArrest.08*

Prior Aid Vitals

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.29]

Indication of whether this set of vital signs was obtained prior to the documenting EMS unit's care

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.29"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11131)
3. **SHALL** contain exactly one [1..1] **code/@code**="67518-1" *Obtained prior to units EMS care NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10273)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:11132)
 - *NEMESIS Trace: EVitals.02*

Prior CPR

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.125]

Indication of whether CPR was provided prior to the documenting EMS unit's care

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.125"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11247)
3. **SHALL** contain exactly one [1..1] **code/@code**="67506-6" *CPR prior to EMS arrival NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10163)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10164)
 - *NEMESIS Trace: EArrest.05*
5. **MAY** contain zero or one [0..1] **participant** (CONF:10165)
 - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="RESP" (CONF:11248)
 - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:10943)
 - a. This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [PriorCareProviderRole](#) 2.16.840.1.1133883.17.3.11.12 **DYNAMIC** (CONF:10167)
 - *NEMESIS Trace: eArrest.06*

Procedure

[Procedure: templateId 2.16.840.1.1133883.17.3.10.1.181]

Procedure performed by EMS unit

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.181"
2. **MAY** contain zero or one [0..1] **@negationInd** (CONF:11212)
 - *Required to document a procedure not performed, with required "reason not performed" observation*
3. **SHALL** contain exactly one [1..1] **code** (CONF:10496)

- *NEMESIS Trace: EProcedures.03, for which use ICD10-PCS and EArrest.09, for which use Cardiopulmonary Resuscitation type (VS 2.16.840.1.113883.17.3.11.57) and EArrest.10 (therapeutic hypothermia); include here as ICD-10 PCS "6A4" using negation indicator if not done and EArrest.03:*
3003001 Attempted Defibrillation = ICD10-PCS Defibrillation 5A2204Z
3003005 Initiated Chest Compressions: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.113883.17.3.11.57); reader may infer from this value if necessary
3003003 Attempted Ventilation: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.113883.17.3.11.57); reader may infer from this value if necessary
3003007 Not Attempted-Considered Futile = Assistance 5A0; procedure negation = True; ReasonNotAttempted required
3003009 Not Attempted-DNR Orders = Assistance 5A0; procedure negation = True; ReasonNotAttempted required
3003011 Not Attempted-Signs of Circulation = Assistance 5A0; procedure negation = True; ReasonNotAttempted required
- 4. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:10498)
Required for cardiac resuscitation procedures (eArrest.16)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Abandoned Procedure Reason Observation* (CONF:10510)
- 5. **MAY** contain zero or one [0..1] **statusCode** (CONF:10499), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.5.14 ActStatus) (CONF:10500)
 - *NEMESIS Trace: EArrest.15*
Use value "aborted" for discontinued resuscitation (eArrest.15)
- 6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10497)
 - *NEMESIS Trace: EProcedures.01 goes in effectiveTime.low*
If an abandoned time is recorded, EArrest.15 goes in effectiveTime.high
- 7. **MAY** contain zero or one [0..1] **approachSiteCode** (CONF:10502), which **SHALL** be selected from ValueSet *Infusion Site* 2.16.840.1.113883.17.3.11.56 **DYNAMIC** (CONF:10501)
 - *NEMESIS Trace: EProcedures.13*
Required conditionally if procedure code is insertion of an infusion device
Some NEMESIS values require additional information: see Appendix for details.
- 8. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10503)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Prior Indicator* (CONF:10515)
- 9. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:10504)
Important for airway insertion
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Number Of Attempts Observation* (CONF:10519)
NEMESIS Trace: EProcedures.05
- 10. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10505)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Successful Observation* (CONF:10523)
- 11. **SHALL** contain at least one [1..*] **entryRelationship** (CONF:10506)
 - a. Such entryRelationships **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Complications Observation* (CONF:10527)
- 12. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:10507)

- a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Patient Response Observation* (CONF:10531)
- 13. **SHALL** contain at least one [1..*] **performer** (CONF:10508)
 - a. Such performers **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:10536)
 - a. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:10537), which **SHALL** be selected from ValueSet *ProviderRole* 2.16.840.1.113883.17.3.11.46 **DYNAMIC** (CONF:10538)
NEMESIS Trace: EProcedures.10
 - b. This assignedEntity **SHALL** contain exactly one [1..1] **id** (CONF:10539)
NEMESIS Trace: EProcedures.09, ID equal to the EMS professional's agency ID number
- 14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:10509)
NEMESIS Trace: EAirway.04; required if procedure code is airway placement, i.e., 0CHY7BZ
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Airway Confirmation Observation* (CONF:10540)
- 15. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:11089)
 - a. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Reason Procedure Not Attempted Observation* (CONF:11088)
- 16. **SHALL** contain zero or more [0..*] **participant** {subsets Procedure::participant} (CONF:11387)
 - a. Such participants **SHALL** contain exactly one [1..1] **participantRole** (CONF:10548)
 - a. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:10549)
 - a. This playingDevice **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet *AirwayDeviceType* 2.16.840.1.113883.17.3.11.61 **DYNAMIC** (CONF:10550)
NEMESIS Trace: EAirway.03

Procedure Complications Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.179]

Complications associated with a procedure performed by the EMS unit

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.179"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11259)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10528)/**@code**="67545-4" *Procedure complication* *NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10529)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *ProcedureComplicationType* 2.16.840.1.113883.17.3.11.58 **DYNAMIC** (CONF:10530)
 - *NEMESIS Trace: EProcedures.07*

Procedure Number Of Attempts Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.132]

How many times the EMS unit attempted a procedure

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.132"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11257)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10520)/**@code**="67543-9" *Procedure attempts [#]* NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10521)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10522)
 - NEMESIS Trace: EProcedures.05

Procedure Patient Response Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.135]

How a patient responded to a procedure

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.135"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11260)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10532)/**@code**="67546-2" *Response to procedure NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10533)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10534), which **SHALL** be selected from ValueSet [ChangeInPatientStatus](#) 2.16.840.1.1133883.17.3.11.78 **DYNAMIC** (CONF:10535)
 - NEMESIS Trace: EProcedures.08

Procedure Prior Indicator

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.131]

Indication of whether a procedure was provided prior to the documenting EMS unit's care

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.131"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11256)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10516)/**@code**="67542-1" *Procedure performed prior to this units EMS care NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10517)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10518)
 - NEMESIS Trace: EProcedures.02

Procedure Successful Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.133]

Indication of whether a procedure was successful

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.133"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11258)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10524)/**@code**="67544-7" *Procedure successful NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10525)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10526)
 - *NEMESIS Trace: EProcedures.06*

Protocol Age Category

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.149]

Age range for which a protocol is appropriate

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.149"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11282)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10723)/**@code**="67538-9" *Protocol age category NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10724)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10725), which **SHALL** be selected from ValueSet [ProtocolAgeCategory](#) 2.16.840.1.1133883.17.3.11.86 **DYNAMIC** (CONF:10726)
 - *NEMESIS Trace: EProtocols.02*

Protocol Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.93]

The protocol used by EMS personnel to direct the clinical care of the patient

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.93"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11209)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10719)/**@code**="67537-1" *Protocol used NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10718)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10720), which **SHALL** be selected from ValueSet [Protocol](#) 2.16.840.1.1133883.17.3.11.73 **DYNAMIC** (CONF:10721)
 - *NEMESIS Trace: EProtocols.01*
5. contain exactly one [1..1] **entryRelationship**
 - a. This **entryRelationship** **SHALL** contain exactly one [1..1] **observation**, where its type is [Protocol Age Category](#) (CONF:11073)

Provider Primary Impression

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.65]

The EMS personnel's impression of the patient's primary problem or most significant condition

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.65"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11172)
3. **SHALL** contain exactly one [1..1] code (CONF:10796)/@code="67492-9" Primary problem NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10797)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:10798), which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:10799)
 - NEMESIS Trace: ESituation.11

Provider Secondary Impressions

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.68]

The EMS personnel's impression of the patient's secondary problems or conditions

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.68"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11175)
3. **SHALL** contain exactly one [1..1] code (CONF:10811)/@code="69542-9" Secondary problem NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10812)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD" (CONF:10813), which **SHALL** be selected from (CodeSystem: 2.16.840.1.1133883.6.90 ICD-10 CM) (CONF:10814)
 - NEMESIS Trace: ESituation.12

Reason For Choosing Destination Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.35]

The reason the unit chose to deliver the patient to the destination

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.35"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11140)
3. **SHALL** contain exactly one [1..1] code (CONF:10684)/@code="67552-0" Reason for choosing destination NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10683)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD" (CONF:10685), which **SHALL** be selected from ValueSet [DestinationChoiceReason](#) 2.16.840.1.1133883.17.3.11.68 **DYNAMIC** (CONF:10686)
 - NEMESIS Trace: EDisposition.20

Reason Procedure Not Attempted Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.137]

Why the EMS crew did not attempt to perform a procedure

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.137"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11262)
3. **SHALL** contain exactly one [1..1] code/@code="67504-1" Reason resuscitation not attempted NEMESIS (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:11263)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:11264), which **SHALL** be selected from ValueSet Reason Procedure not Performed Superset 2.16.840.1.1133883.17.3.11.100 DYNAMIC (CONF:11265)
 - NEMESIS Trace: EProcedures.03 pertinent negatives, EArrest.03 negative values
This is a superset of both value sets: the question is the same, even if the .90 values are appropriate only for CPR and the .95 for all other procedures.
Note: CPR procedures have appropriate values "Not Attempted-Considered Futile," "Not Attempted-DNR Orders," "Not Attempted-Signs of Circulation"; other procedures have values "Contraindication Noted," "Denied By Order," "Refused," "Unable to Complete"

Respiratory Rate

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.146]

Patient's rate of respiration

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.146"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11276)
3. **SHALL** contain exactly one [1..1] code/@code="9279-1" Respiratory rate (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10287)
4. **MAY** contain zero or one [0..1] effectiveTime (CONF:11277)
 - NEMESIS Trace: EVitals.01
5. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:10288)
 - NEMESIS Trace: EVitals.14
UCUM units SHOULD be "/min".

Response Beginning Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.171]

Odometer reading for the EMS vehicle when dispatched

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.171"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11314)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10631)/**@code**="67484-6" *Counter or odometer reading NEMSIS --beginning of call* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10632)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10633)
 - *NEMSIS Trace: EResponse.19*
UCUM units SHOULD be "[mi_i]"

Response Delay

[Observation: templateId 2.16.840.1.113883.17.3.10.1.154]

Causes of delay to the response process

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.154"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11287)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10595)/**@code**="67557-9" *Response delay NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10594)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10597), which **SHALL** be selected from ValueSet [ResponseDelayType](#) 2.16.840.1.113883.17.3.11.51 **DYNAMIC** (CONF:10596)
 - *NEMSIS Trace: EResponse.09*

Response Destination Odometer Reading

[Observation: templateId 2.16.840.1.113883.17.3.10.1.173]

Odometer reading for the EMS vehicle at patient destination

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.173"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11316)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10639)/**@code**="67486-1" *Counter or odometer reading NEMSIS --patient destination* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10640)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10641)
 - *NEMSIS Trace: EResponse.21*
UCUM units SHOULD be "[mi_i]"

Response Ending Odometer Reading

[Observation: templateId 2.16.840.1.113883.17.3.10.1.174]

Odometer reading for the EMS vehicle when call is complete

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.174"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11317)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10643)/**@code**="67487-9" *Counter or odometer reading NEMSIS --end of call* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10644)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10645)
 - *NEMSIS Trace: EResponse.22*
UCUM units SHOULD be "[mi_i]"

Response Mode Qualifier

[Observation: templateId 2.16.840.1.113883.17.3.10.1.191]

Characteristics of the response mode

| Contained By | Contains |
|--|----------|
| Response Mode To Scene | |

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.191"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:11371)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11374)
4. **SHALL** contain exactly one [1..1] **code** (CONF:11372)/**@code**="77157-6" *Response mode descriptors* (CONF:11373)
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:11376), which **SHALL** be selected from ValueSet [ResponseModeQualifier](#) 2.16.840.1.113883.17.3.11.106 **DYNAMIC** (CONF:11375)
 - *NEMSIS Trace: eResponse.24 (Additional Response Mode Descriptors)*

Response Mode Qualifier example

Error: Missing Runtime Class

Response Mode To Scene

[Observation: templateId 2.16.840.1.113883.17.3.10.1.182]

Indication of whether the response was emergent or non-emergent

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.182"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11211)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10647)/**@code**="67482-0" *Response mode to scene NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10648)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10650), which **SHALL** be selected from ValueSet [TransportationMode](#) 2.16.840.1.113883.17.3.11.66 **DYNAMIC** (CONF:10649)

- NEMESIS Trace: EResponse.23
- 5. **SHALL** contain [1..1] **entryRelationship** (CONF:11343)
 - a. Contains exactly one [1..1] *Response Mode Qualifier* (templateId: 2.16.840.1.1133883.17.3.10.1.191)

Response Odometer Reading Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.97]

Collection of odometer readings at various points in an EMS crew's trip

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.97"
2. **MAY** contain zero or one [0..1] **component** (CONF:10626)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Response Beginning Odometer Reading* (CONF:10630)
3. **MAY** contain zero or one [0..1] **component** (CONF:10627)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Response On Scene Odometer Reading* (CONF:10634)
4. **MAY** contain zero or one [0..1] **component** (CONF:10628)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Response Destination Odometer Reading* (CONF:10638)
5. **MAY** contain zero or one [0..1] **component** (CONF:10629)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Response Ending Odometer Reading* (CONF:10642)

Response On Scene Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.172]

Odometer reading for the EMS vehicle when the unit arrives at the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.172"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11315)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10635)/**@code**="67485-3" *Counter or odometer reading NEMESIS --patient arrival* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10636)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10637)
 - NEMESIS Trace: EResponse.20
UCUM units SHOULD be "[mi_i]"

Return Of Spontaneous Circulation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.128]

Indication whether or not there was any return of spontaneous circulation, and if so, when

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.128"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11252)
3. **SHALL** contain exactly one [1..1] **code/@code**="67513-2" *Return of spontaneous circulation NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10184)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:11253), which **SHALL** be selected from ValueSet *ReturnOfSpontaneousCirculation* 2.16.840.1.1133883.17.3.11.15 **DYNAMIC** (CONF:10185)
 - *NEMESIS Trace: EArrest.12*

Scene Delay

[Observation: **templateId** 2.16.840.1.1133883.17.3.10.1.155]

Causes of delay at the event scene

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.155"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11288)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10600)/**@code**="67558-7" *Scene delay NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10599)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10602), which **SHALL** be selected from ValueSet *SceneDelayType* 2.16.840.1.1133883.17.3.11.52 **DYNAMIC** (CONF:10601)
 - *NEMESIS Trace: EResponse.10*

Scene Patient Count

[Observation: **templateId** 2.16.840.1.1133883.17.3.10.1.86]

How many patients were at the scene

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.86"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11199)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10750)/**@code**="67489-5" *Total patients at the scene NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10749)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10751)
 - *NEMESIS Trace: EScene.06*

Skin Assessment

[Observation: **templateId** 2.16.840.1.1133883.17.3.10.1.180]

Qualitative assessment of condition of patient's skin

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.180"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11223)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10368)/**@code**="67524-9" *Physical findings of Skin NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10369)
4. **MAY** contain exactly one [1..1] **effectiveTime** (CONF:11386)
 - *NEMSIS Trace: EExam.03*
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10370), which **SHALL** be selected from ValueSet *SkinAssessment* 2.16.840.1.1133883.17.3.11.25 **DYNAMIC** (CONF:10371)
 - *NEMSIS Trace: EExam.04*

Stroke Score

[Observation: **templateId** 2.16.840.1.1133883.17.3.10.1.163]

Result of a stroke scale instrument

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.163"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11297)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10308)/**@code**="67520-7" *Stroke scale overall interpretation NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10307)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11298)
 - *NEMSIS Trace: EVitals.01*
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10310), which **SHALL** be selected from ValueSet *Stroke Scale Interpretation* 2.16.840.1.1133883.17.3.11.93 **DYNAMIC** (CONF:10309)
 - *NEMSIS Trace: EVitals.29*
6. **SHALL** contain exactly one [1..1] **methodCode** (CONF:10312), which **SHALL** be selected from ValueSet *StrokeScale* 2.16.840.1.1133883.17.3.11.88 **DYNAMIC** (CONF:10311)
 - *NEMSIS Trace: EVitals.30*

Systolic Blood Pressure

[Observation: **templateId** 2.16.840.1.1133883.17.3.10.1.23.1]

Measurement of the patient's systolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.23.1"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11271)
3. **SHALL** contain exactly one [1..1] **code**/**@code="8480-6" *Systolic blood pressure* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10280)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:7304)
 - *NEMSIS Trace: EVitals.01*

5. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:10281)
 - *NEMESIS Trace: EVitals.06*
UCUM units SHOULD be "mm[Hg]".
6. **SHALL** contain zero or more [0..*] **methodCode** (CONF:11344), which **SHALL** be selected from ValueSet *BloodPressureMeasurementMethod* 2.16.840.1.113883.17.3.11.107 **STATIC** (CONF:11345)
 - *NEMESIS Trace: eVitals.08 (method of blood pressure measurement)*

Thrombolytic Contraindications

[Observation: templateId 2.16.840.1.113883.17.3.10.1.82]

Indicator of contraindications to thrombolytic use

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.82"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11195)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10431)/@code="67523-1" *Contraindication for thrombolytic use NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10432)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet *ExistenceOfContraindicationsToThrombolyticUse* 2.16.840.1.113883.17.3.11.41 **DYNAMIC** (CONF:10433)
 - *NEMESIS Trace: EVitals.31*

Transport Delay

[Observation: templateId 2.16.840.1.113883.17.3.10.1.156]

Causes of delay to the transport process

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.156"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11289)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10605)/@code="67559-5" *Transport delay NEMESIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10604)
4. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD" (CONF:10607), which **SHALL** be selected from ValueSet *TransportDelayType* 2.16.840.1.113883.17.3.11.53 **DYNAMIC** (CONF:10606)
 - *NEMESIS Trace: EResponse.11*

Transport Method Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.34]

Vehicle or device used to transport patient

Vehicle or device used to transport patient

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.34"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11139)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10679)/**@code**="67549-6" *Transport method NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10678)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10680), which **SHALL** be selected from ValueSet *TransportMethod* 2.16.840.1.1133883.17.3.11.65 **DYNAMIC** (CONF:10681)
 - *NEMESIS Trace: EDisposition.16*

Transport Mode Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.33]

Indication of whether the transport was emergent or non-emergent

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.33"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11138)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10674)/**@code**="67550-4" *Transport mode from scene NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10673)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10675), which **SHALL** be selected from ValueSet *TransportationMode* 2.16.840.1.1133883.17.3.11.66 **DYNAMIC** (CONF:10676)
 - *NEMESIS Trace: EDisposition.17 (disposition transport mode)*
5. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:11379)
 - a. This entryRelationship contain exactly one [1..1] **@typeCode**="COMP"
 - b. This entryRelationship **SHALL** contain exactly one [1..1] **observation**, where its type is *Transport Mode Qualifier* (CONF:11339)

Transport Mode Qualifier

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.193]

Characteristics of the transport mode

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.193"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.1133883.5.6 HL7ActClass) (CONF:11353)
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11378)
4. **SHALL** contain exactly one [1..1] **code** (CONF:11354)/**@code**="77153-5" *Transport Mode Descriptors* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:11355)
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *TransportModeQualifier* 2.16.840.1.1133883.17.3.11.102 **DYNAMIC** (CONF:11356)
 - *NEMESIS Trace: eDisposition.18 (additional transport mode descriptors)*

Transport Mode Qualifier example

Error: Missing Runtime Class

Trauma Center Criteria

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.52]

Field Triage Criteria for transport to a trauma center as defined by the Centers for Disease Control and Prevention and the American College of Surgeons-Committee on Trauma

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.52"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11157)
3. **SHALL** contain exactly one [1..1] code/@code="67495-2" *CDC field triage criteria NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10111)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [TraumaCenterCriteria](#) 2.16.840.1.1133883.17.3.11.3 **DYNAMIC** (CONF:10112)
 - *NEMESIS Trace: EInjury.03*

Turnaround Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.157]

Causes of delay to the unit turnaround process

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.157"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11290)
3. **SHALL** contain exactly one [1..1] code (CONF:10610)/@code="67560-3" *Turn-around delay NEMESIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10609)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD" (CONF:10612), which **SHALL** be selected from ValueSet [TurnAroundDelayType](#) 2.16.840.1.1133883.17.3.11.54 **DYNAMIC** (CONF:10611)
 - *NEMESIS Trace: EResponse.12*

Unit At Patient Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.42]

Time the unit arrived at the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.42"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11147)

3. **SHALL** contain exactly one [1..1] **code** (CONF:10851)/@**code**="69474-5" *Responding unit arrived at the patient's side [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10850)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:10852)
 - *NEMSIS Trace: ETimes.07*

Unit Back In Service Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.45]

Time the unit is back in service

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.45"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11150)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10863)/@**code**="69477-8" *Unit was back in service and available for response [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10862)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:10864)
 - *NEMSIS Trace: ETimes.13*

Unit En Route Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.40]

Time unit begins moving toward the patient

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.40"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11145)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10843)/@**code**="69472-9" *Unit responded [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10842)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:10844)
 - *NEMSIS Trace: ETimes.05*

Unit Left Scene Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.43]

Time the unit left the incident scene

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.43"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11148)

3. **SHALL** contain exactly one [1..1] **code** (CONF:10855)/@**code**="69475-2" *Responding unit left the scene with a patient [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10854)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:10856)
 - *NEMSIS Trace: ETimes.09*

Unit Level Of Care Capability

[Observation: templateId 2.16.840.1.113883.17.3.10.1.190]

The level of care the unit is able to provide

| Contained By | Contains |
|--------------------------------------|----------|
| EMS Response Section | |

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.190"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11368)
3. **SHALL** contain exactly one [1..1] **code** (CONF:11382)/@**code**="77156-8" *EMS level of care capability* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11367)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:11369), which **SHALL** be selected from ValueSet [UnitLevelOfCare](#) 2.16.840.1.113883.17.3.11.105 **STATIC** (CONF:11370)
 - *NEMSIS Trace: eResponse.15 (Unit level of care)*

Unit Level Of Care Capability example

Error: Missing Runtime Class

Unit Notified Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.39]

Time the unit was dispatched

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.39"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11144)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10839)/@**code**="69471-1" *Responding unit was notified by dispatch [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10838)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="TS" (CONF:10840)
 - *NEMSIS Trace: ETimes.03*
This is the value represented in the header for the encompassing encounter

Unit On Scene Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.41]

Time the unit arrived at the incident scene

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.41"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11146)
3. **SHALL** contain exactly one [1..1] code (CONF:10847)/@code="69473-7" *Responding unit arrived on the scene [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10846)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="TS" (CONF:10848)
 - *NEMSIS Trace: ETimes.06*

Vehicle Impact Area

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.54]

Area of vehicle struck in a vehicle collision

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.54"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11159)
3. **SHALL** contain exactly one [1..1] code/@code="67497-8" *Location of impact on the vehicle NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10117)
4. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [VehicleImpactArea](#) 2.16.840.1.1133883.17.3.11.5 **DYNAMIC** (CONF:10118)
 - *NEMSIS Trace: EInjury.05*

Vehicle Occupant Safety Equipment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.56]

Safety equipment in use by the patient at the time of the injury

1. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.1133883.17.3.10.1.56"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11161)
3. **SHALL** contain exactly one [1..1] code/@code="67499-4" *Safety equipment NEMSIS* (CodeSystem: 2.16.840.1.1133883.6.1 LOINC) (CONF:10123)
4. **SHALL** contain at least one [1..*] value with @xsi:type="CD", which **SHALL** be selected from ValueSet [SafetyEquipmentType](#) 2.16.840.1.1133883.17.3.11.7 **DYNAMIC** (CONF:10124)
 - *NEMSIS Trace: EInjury.07*

Vital Signs Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.28]

A collection vital signs observations

For any observation within the organizer, if the NEMESIS value is "Refused," the value SHALL be "NI;" the string "Refused" MAY be recorded in Observation.text.

Note that NEMESIS collects times at the vitals cluster level, whereas systems may record them at the observation level. No preference is indicated regarding how close individual observation timestamps must be to allow their inclusion in a cluster or how the cluster effectiveTime is determined. effectiveTime is modeled on the observations to support unanticipated uses and to conform more closely to the Consolidated CDA pattern, though the exclusion of the id property makes it impossible to assert compliance to the Consolidated template in this guide (though it remains possible to do so in an implementation).

1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.28"
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10257)
 - *NEMESIS Trace: EVitals.01*
3. **SHALL** contain exactly one [1..1] **component** (CONF:11078)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Systolic Blood Pressure* (CONF:11077)
4. **SHOULD** contain zero or one [0..1] **component** (CONF:11080)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Diastolic Blood Pressure* (CONF:11079)
5. **SHALL** contain exactly one [1..1] **component** (CONF:11082)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Heart Rate* (CONF:11081)
6. **SHALL** contain exactly one [1..1] **component** (CONF:11084)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Respiratory Rate* (CONF:11083)
7. **SHOULD** contain zero or one [0..1] **component** (CONF:11086)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Body Temperature* (CONF:11085)
8. **SHALL** contain exactly one [1..1] **component** {subsets Organizer::component} (CONF:11090)
 - a. This component **SHALL** contain exactly one [1..1] **observation**, where its type is *Oxygen Saturation* (CONF:11087)
9. **SHALL** contain [1..1] **component** (CONF:11335)
 - a. Contains exactly one [1..1] *Prior Aid Vitals* (templateId: 2.16.840.1.1133883.17.3.10.1.29)
10. **SHALL** contain exactly one [1..1] **component** (CONF:11336)
 - a. This component **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11134)

NEMESIS Trace: EVitals.01
 - b. This component **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.1133883.5.1001 HL7ActMood) (CONF:11133)
 - c. This component **MAY** contain [1..1] **component** (CONF:11094)
 - d. This component **MAY** contain [1..1] **component** (CONF:11096)
 - e. This component **MAY** contain [0..1] **component** (CONF:11095)
 - f. This component **MAY** contain [1..1] **component** (CONF:11097)
 - g. This component **SHALL** contain [1..1] **component** (CONF:11135)

- h. This component **MAY** contain [1..1] **component** (CONF:11093)
- i. This component **MAY** contain [1..1] **component** (CONF:11092)
- j. This component **MAY** contain [1..1] **component** (CONF:11091)
- 11. **SHALL** contain zero or one [0..1] **code** (CONF:11338)/@code="46680005" *Vital signs* (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) (CONF:11337)
 - *May also use LOINC 74728-7 "Vital signs, weight, height, head circumference, oximetry, BMI, and BSA panel - HL7.CCDAr1.1"*

Chapter

5

VALUE SETS

Topics:

- *AED Use Prior To EMS Arrival*
- *Abdomen Assessment Finding*
- *Abdominal Finding Location*
- *Administrative Gender*
- *Administrative Gender Excluding Nulls*
- *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*
- *Blood Pressure Measurement Method*
- *Cardiac Arrest Cause*
- *Cardiac Arrest Outcome*
- *Cardiac Arrest Timing*
- *Cardiac Arrest Witness Role*
- *Cardiac Rhythm Reading*
- *Cardiopulmonary Resuscitation Type*
- *Change In Patient Status*
- *Chest Lung Assessment Finding*
- *Complaint*
- *Complaint Type*
- *Confidentiality*
- *Crew Role Level*
- *Destination Choice Reason*
- *Destination Prearrival Activation*
- *Destination Type*
- *Destination Ward Kind*
- *Disaster Type*

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

- *Dispatch Delay Type*
- *ECG Type*
- *EMD Performed*
- *EMS Level Of Service*
- *EMS Medication Administration Device*
- *Ethnicity*
- *Ethnicity Group*
- *Existence Of Contraindications To Thrombolytic Use*
- *Extremity Finding Location*
- *Eye Assessment Finding*
- *Eye Finding Location*
- *FDA Route of Administration*
- *Face Assessment Finding*
- *First Monitored Rhythm*
- *Glasgow Coma Score Special Circumstances*
- *HL7 Administrative Gender*
- *HL7 Confidentiality*
- *HL7 Human Language*
- *Head Assessment Finding*
- *Heart Assessment Finding*
- *Human language*
- *IC D-10*
- *ICD-10 CM*
- *ICD-10 PCS*
- *Incident Outcome*
- *Infusion Site*
- *LOINC*
- *Length Based Weight Class*
- *Level Of Responsiveness*
- *Mechanism Of Injury*
- *Medication Administration Route*
- *Medication Administration Site*
- *Medication Authorization Type*
- *Medication Complication*
- *Medication Not Given Reason*
- *Mental Status Finding*
- *Method Of ECG Interpretation*
- *Neck Assessment Finding*
- *Neurological Assessment Finding*
- *Non Drug Allergy Type*
- *Organ System*
- *Pelvis Genitourinary Assessment*

- *Pregnancy*
- *Primary Hospital Capability*
- *Prior Care Provider Role*
- *Procedure Complication Type*
- *Protocol*
- *Protocol Age Category*
- *Provider Adverse Event Type*
- *Provider Response Role*
- *Provider Role*
- *Race and Ethnicity - CDC*
- *Race Category*
- *Reason Procedure not Performed*
- *Reason Procedure not Performed Superset*
- *Reason Resuscitation Not Attempted*
- *Registry Type*
- *Response Delay Type*
- *Response Mode Qualifier*
- *Resuscitation Discontinue Reason*
- *Return Of Spontaneous Circulation*
- *Rx Norm*
- *Safety Equipment Type*
- *Scene Delay Type*
- *Service Type*
- *Stroke Scale*
- *Stroke Scale Interpretation*
- *Transport Delay Type*
- *Transport Method*
- *Transport Mode Qualifier*
- *Transportation Mode*
- *Trauma Center Criteria*
- *Turn Around Delay Type*
- *Unit Level Of Care*
- *Unit Response Role*
- *Vehicle Impact Area*
- *Vehicle Passenger Location*

AED Use Prior To EMS Arrival

| | |
|-------------|---|
| Value Set | AEDUsePriorToEMSArrival - 2.16.840.1.113883.17.3.11.13 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Use of automated electronic defibrillator, with or without defibrillation |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------------|
| LA17066-4 | LOINC | Yes, with defibrillation |
| LA17067-2 | LOINC | Yes, applied without defibrillation |
| LA32-8 | LOINC | No |

Abdomen Assessment Finding

| | |
|-------------|---|
| Value Set | AbdomenAssessmentFinding - 2.16.840.1.113883.17.3.11.31 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS abdominal assessment |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17213-2 | LOINC | Mass/lesion |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17242-1 | LOINC | Distention |
| LA17243-9 | LOINC | Guarding |
| LA17212-4 | LOINC | Gunshot wound |
| LA17246-2 | LOINC | Mass-pulsating |
| LA17247-0 | LOINC | Pregnant-palpable uterus |
| LA17709-9 | LOINC | Tenderness |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18226-3 | LOINC | Foreign body |
| LA18247-9 | LOINC | Bowel sounds-absent |
| LA18248-7 | LOINC | Bowel sounds-present |
| LA6626-1 | LOINC | Normal |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA23814-9 | LOINC | Rebound Tenderness |
| LA23815-6 | LOINC | Rigidity |
| LA17229-8 | LOINC | Crush injury |
| LA22440-4 | LOINC | Swelling |
| LA7423-2 | LOINC | Contusion |
| LA18225-5 | LOINC | Deformity |

Abdominal Finding Location

| | |
|-------------|---|
| Value Set | AbdominalFindingLocation - 2.16.840.1.113883.17.3.11.32 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Location of finding resulting from EMS abdominal assessment |

| Code | Code System | Print Name |
|----------------|-------------|----------------------|
| LA12698-9 | LOINC | Left upper quadrant |
| LA18721-3 | LOINC | Generalized |
| LA18722-1 | LOINC | Left lower quadrant |
| LA18723-9 | LOINC | Right upper quadrant |
| LA18724-7 | LOINC | Periumbilical |
| LA18725-4 | LOINC | Right lower quadrant |
| LOINC_TBDA_924 | LOINC | Epigastric |

Administrative Gender

| | |
|-------------|---|
| Value Set | Administrative Gender - 2.16.840.1.113883.1.11.1 |
| Code System | HL7 Administrative Gender - 2.16.840.1.113883.5.1 |
| Definition | Gender of the patient for administrative purposes |

Administrative Gender Excluding Nulls

| | |
|------------|---|
| Value Set | Administrative Gender Excluding Nulls - 2.16.840.1.113883.3.2074.1.1.5 |
| Definition | Gender of the patient for administrative purposes, excluding the problematic value UN |

| Code | Code System | Print Name |
|------|--------------------------|------------|
| M | AdministrativeGenderCode | Male |
| F | AdministrativeGenderCode | Female |

Advance Directive Type

| | |
|-------------|---|
| Value Set | AdvanceDirectiveType - 2.16.840.1.113883.17.3.11.63 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Type of advance directive documentation |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA137-2 | LOINC | None |
| LA17059-9 | LOINC | Other (not listed) |
| LA17319-7 | LOINC | State EMS DNR or medical order form |
| LA17320-5 | LOINC | Other healthcare advanced directive form |
| LA17321-3 | LOINC | Living will |
| LA17322-1 | LOINC | Family/guardian request DNR (but no documentation) |

Airbag Status

| | |
|-------------|--|
| Value Set | AirbagStatus - 2.16.840.1.113883.17.3.11.8 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Configuration of airbag deployment |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17384-1 | LOINC | Airbag deployed front |
| LA17385-8 | LOINC | Airbag deployed side |
| LA17386-6 | LOINC | Airbag deployed other (knee, airbelt, etc.) |
| LA17387-4 | LOINC | No airbag deployed |
| LA17388-2 | LOINC | No airbag present |
| LA46-8 | LOINC | Other |

Airway Device Confirmation Method

| | |
|-------------|---|
| Value Set | AirwayDeviceConfirmationMethod - 2.16.840.1.113883.17.3.11.60 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Procedure for confirming airway device placement |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA18672-8 | LOINC | Auscultation |
| LA18673-6 | LOINC | Bulb syringe aspiration |
| LA18674-4 | LOINC | Colorimetric ETCO2 |
| LA18675-1 | LOINC | Condensation in tube |
| LA18676-9 | LOINC | Digital (numeric) ETCO2 |
| LA18677-7 | LOINC | Direct re-visualization of tube in place |
| LA18678-5 | LOINC | Endotracheal tube whistle (BAAM, etc) |
| LA18680-1 | LOINC | Visualization of vocal cords |
| LA18681-9 | LOINC | Waveform ETCO2 |

Airway Device Type

| | |
|-------------|---|
| Value Set | AirwayDeviceType - 2.16.840.1.113883.17.3.11.61 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of airway device |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------------------|
| LA18004-4 | LOINC | Tracheostomy tube |
| LA18657-9 | LOINC | Cricothyrotomy tube |
| LA18658-7 | LOINC | Endotrachial tube |
| LA18659-5 | LOINC | Other invasive airway |
| LA18660-3 | LOINC | Supraglottic airway device-combitube |
| LA18661-1 | LOINC | Supraglottic airway device-king |
| LA18662-9 | LOINC | Supraglottic airway device-LMA |
| LA18663-7 | LOINC | Supraglottic airway device-other |

Alcohol Drug Use Indicator

| | |
|-------------|--|
| Value Set | AlcoholDrugUseIndicator - 2.16.840.1.113883.17.3.11.18 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Indications that a patient may have engaged in alcohol or drug use |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17323-9 | LOINC | Alcohol containers/paraphernalia at scene |
| LA17324-7 | LOINC | Drug paraphernalia at scene |
| LA17325-4 | LOINC | Patient admits to alcohol use |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17326-2 | LOINC | Patient admits to drug use |
| LA17327-0 | LOINC | Positive level known from law enforcement or hospital record |
| LA17328-8 | LOINC | Smell of alcohol on breath |

Anatomic Location

| | |
|-------------|---|
| Value Set | AnatomicLocation - 2.16.840.1.113883.17.3.11.76 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Part of the patient body |

| Code | Code System | Print Name |
|-----------|-------------|-----------------|
| LA12703-7 | LOINC | Neck |
| LA12705-2 | LOINC | Back |
| LA12706-0 | LOINC | Abdomen |
| LA18111-7 | LOINC | Chest |
| LA18112-5 | LOINC | Extremity-lower |
| LA18113-3 | LOINC | Extremity-upper |
| LA18114-1 | LOINC | General/global |
| LA18115-8 | LOINC | Genitalia |
| LA18116-6 | LOINC | Head |

Back Spine Assessment Finding

| | |
|-------------|---|
| Value Set | BackSpineAssessmentFinding - 2.16.840.1.113883.17.3.11.34 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS back and spine assessment |

| Code | Code System | Print Name |
|-----------|-------------|---------------------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17212-4 | LOINC | Gunshot wound |
| LA17256-1 | LOINC | Pain with range of motion |
| LA17257-9 | LOINC | Tenderness costovertebral angle (CVA) |
| LA17258-7 | LOINC | Tenderness midline spinous process |
| LA17259-5 | LOINC | Tenderness paraspinous |

| Code | Code System | Print Name |
|-----------|-------------|------------------|
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA17709-9 | LOINC | Tenderness |
| LA17229-8 | LOINC | Crush injury |
| LA22440-4 | LOINC | Swelling |
| LA7423-2 | LOINC | Contusion |

Back Spine Finding Location

| | |
|-------------|--|
| Value Set | BackSpineFindingLocation - 2.16.840.1.113883.17.3.11.35 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Location of finding resulting from EMS back and spine assessment |

| Code | Code System | Print Name |
|-----------|-------------|------------------|
| LA18726-2 | LOINC | Back-general |
| LA18727-0 | LOINC | Cervical-left |
| LA18728-8 | LOINC | Cervical-midline |
| LA18729-6 | LOINC | Cervical-right |
| LA18730-4 | LOINC | Lumbar-left |
| LA18731-2 | LOINC | Lumbar-right |
| LA18732-0 | LOINC | Sacral-right |
| LA18733-8 | LOINC | Sacral-left |
| LA18734-6 | LOINC | Sacral-midline |
| LA18735-3 | LOINC | Lumbar-midline |
| LA18736-1 | LOINC | Thoracic-midline |

| Code | Code System | Print Name |
|-----------|-------------|----------------|
| LA18737-9 | LOINC | Thoracic-left |
| LA18738-7 | LOINC | Thoracic-right |

Barrier To Care

| | |
|-------------|---|
| Value Set | BarrierToCare - 2.16.840.1.113883.17.3.11.85 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Circumstances limiting one's ability to provide care to a patient |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17306-4 | LOINC | Cultural, custom, religious |
| LA17307-2 | LOINC | Developmentally impaired |
| LA17308-0 | LOINC | Hearing impaired |
| LA17309-8 | LOINC | Language |
| LA17310-6 | LOINC | Physical barrier (unable to access patient) |
| LA17311-4 | LOINC | Physically impaired |
| LA17312-2 | LOINC | Physically restrained |
| LA17313-0 | LOINC | Psychologically impaired |
| LA17314-8 | LOINC | Sight impaired |
| LA17315-5 | LOINC | Speech impaired |
| LA17316-3 | LOINC | Unattended or unsupervised (including minors) |
| LA17317-1 | LOINC | Uncooperative |
| LA17318-9 | LOINC | None noted |
| LA17711-5 | LOINC | Unconscious |
| LA6301-1 | LOINC | Obesity |
| LA23824-8 | LOINC | State of Emotional Distress |

Blood Pressure Measurement Method

| | |
|-------------|--|
| Value Set | BloodPressureMeasurementMethod - 2.16.840.1.113883.17.3.11.107 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Technique for measuring blood pressure |

| Code | Code System | Print Name |
|---------------|-------------|---------------|
| LONC_TBDA_701 | LOINC | Arterial line |
| LONC_TBDA_702 | LOINC | Doppler |

| Code | Code System | Print Name |
|---------------|-------------|---------------------------|
| LA24013-7 | LOINC | Cuff-automated |
| LA24012-9 | LOINC | Cuff-manual auscultated |
| LONC_TBDA_705 | LOINC | Cuff-manual palpated only |
| LONC_TBDA_706 | LOINC | Venous line |

Cardiac Arrest Cause

| | |
|-------------|---|
| Value Set | CardiacArrestCause - 2.16.840.1.113883.17.3.11.10 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Etiology of a cardiac arrest |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA17056-5 | LOINC | Cardiac (presumed) |
| LA17058-1 | LOINC | Trauma |
| LA17059-9 | LOINC | Other (not listed) |
| LA17977-2 | LOINC | Drowning/submersion |
| LA17978-0 | LOINC | Drug overdose |
| LA17979-8 | LOINC | Exsanguination |
| LA17980-6 | LOINC | Respiratory/asphyxia |
| LA9539-3 | LOINC | Electrocution |

Cardiac Arrest Outcome

| | |
|-------------|--|
| Value Set | CardiacArrestOutcome - 2.16.840.1.113883.17.3.11.101 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Outcome of an EMS cardiac arrest event |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA22792-8 | LOINC | Expired in ED |
| LA22793-6 | LOINC | Expired in the field |
| LA22794-4 | LOINC | Ongoing resuscitation in the ED |
| LA22795-1 | LOINC | Return of spontaneous circulation in the field |
| LA22796-9 | LOINC | Return of spontaneous circulation in the ED |
| LA22797-7 | LOINC | Ongoing resuscitation by other EMS crew |

Cardiac Arrest Timing

| | |
|-------------|---|
| Value Set | CardiacArrestTiming - 2.16.840.1.113883.17.3.11.91 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Whether cardiac arrest occurred before or after arrival of emergency medical service team |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA17054-0 | LOINC | Prior to EMS arrival |
| LA17055-7 | LOINC | After EMS arrival |

Cardiac Arrest Witness Role

| | |
|-------------|---|
| Value Set | CardiacArrestWitnessRole - 2.16.840.1.113883.17.3.11.11 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of person who witnessed a cardiac arrest |

| Code | Code System | Print Name |
|-----------|-------------|----------------------------------|
| LA18020-0 | LOINC | Witnessed by family member |
| LA18021-8 | LOINC | Witnessed by healthcare provider |
| LA18022-6 | LOINC | Witnessed by lay person |
| LA18023-4 | LOINC | Not witnessed |

Cardiac Rhythm Reading

| | |
|-------------|---|
| Value Set | CardiacRhythmReading - 2.16.840.1.113883.17.3.11.16 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of rhythm found in a cardiac arrest patient |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| LA12904-1 | LOINC | Artifact |
| LA17059-9 | LOINC | Other (not listed) |
| LA17068-0 | LOINC | Asystole |
| LA17070-6 | LOINC | PEA |
| LA17071-4 | LOINC | Unknown AED non-shockable rhythm |
| LA17072-2 | LOINC | Unknown AED shockable rhythm |
| LA17073-0 | LOINC | Ventricular fibrillation |
| LA17074-8 | LOINC | Ventricular tachycardia-pulseless |
| LA17083-9 | LOINC | Agonal/idioventricular |

| Code | Code System | Print Name |
|-----------|-------------|------------------------------------|
| LA17084-7 | LOINC | Atrial fibrillation |
| LA17085-4 | LOINC | Atrial flutter |
| LA17086-2 | LOINC | AV block-1st degree |
| LA17087-0 | LOINC | AV block-2nd degree-type 1 |
| LA17088-8 | LOINC | AV block-2nd degree-type 2 |
| LA17089-6 | LOINC | AV block-3rd degree |
| LA17090-4 | LOINC | Junctional |
| LA17091-2 | LOINC | Left bundle branch block |
| LA17093-8 | LOINC | Paced rhythm |
| LA17094-6 | LOINC | Premature atrial contractions |
| LA17095-3 | LOINC | Premature ventricular contractions |
| LA17096-1 | LOINC | Right bundle branch block |
| LA17097-9 | LOINC | Sinus arrhythmia |
| LA17394-0 | LOINC | Bradycardia |
| LA17099-5 | LOINC | Sinus tachycardia |
| LA17100-1 | LOINC | Supraventricular tachycardia |
| LA17101-9 | LOINC | Torsades de points |
| LA17703-2 | LOINC | STEMI-anterior ischemia |
| LA17704-0 | LOINC | STEMI-inferior ischemia |
| LA17705-7 | LOINC | STEMI-lateral ischemia |
| LA17706-5 | LOINC | STEMI-posterior ischemia |
| LA17708-1 | LOINC | Ventricular tachycardia with pulse |
| LA17718-0 | LOINC | Sinus rhythm |
| LA18205-7 | LOINC | Non-STEMI anterior ischemia |
| LA18206-5 | LOINC | Non-STEMI inferior ischemia |
| LA18207-3 | LOINC | Non-STEMI lateral ischemia |
| LA18208-1 | LOINC | Non-STEMI posterior ischemia |

Cardiopulmonary Resuscitation Type

| | |
|-------------|---|
| Value Set | CardiopulmonaryResuscitationType - 2.16.840.1.113883.17.3.11.57 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of procedure used for cardiopulmonary resuscitation |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17749-5 | LOINC | Compressions-continuous |
| LA17750-3 | LOINC | Compressions-external band type device |
| LA17751-1 | LOINC | Compressions-external plunger type device |
| LA17752-9 | LOINC | Compressions-external thumper type device |
| LA17753-7 | LOINC | Compressions-intermittant with ventilation |
| LA17754-5 | LOINC | Compressions-other device |
| LA17755-2 | LOINC | Ventilation-bag valve mask |
| LA17756-0 | LOINC | Ventilation-impedence threshold device |
| LA17757-8 | LOINC | Ventilation-mouth to mouth |
| LA17758-6 | LOINC | Ventilation-pocket mask |

Change In Patient Status

| | |
|-------------|--|
| Value Set | ChangeInPatientStatus - 2.16.840.1.113883.17.3.11.78 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Patient condition indicating urgency of treatment |

| Code | Code System | Print Name |
|-----------|-------------|------------|
| LA65-8 | LOINC | Improved |
| LA17181-1 | LOINC | Unchanged |
| LA11011-6 | LOINC | Worse |

Chest Lung Assessment Finding

| | |
|-------------|---|
| Value Set | ChestLungAssessmentFinding - 2.16.840.1.113883.17.3.11.29 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS chest and lung assessment |

| Code | Code System | Print Name |
|-----------|-------------|---------------------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17222-3 | LOINC | Accessory muscles used with breathing |
| LA17223-1 | LOINC | Breath sounds-absent-left |
| LA17224-9 | LOINC | Breath sounds-absent-right |
| LA17225-6 | LOINC | Breath sounds-decreased-left |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17226-4 | LOINC | Breath sounds-decreased-right |
| LA17227-2 | LOINC | Breath sounds-normal-left |
| LA17228-0 | LOINC | Breath sounds-normal-right |
| LA17229-8 | LOINC | Crush injury |
| LA17230-6 | LOINC | Flail segment-left |
| LA17231-4 | LOINC | Flail segment-right |
| LA17232-2 | LOINC | Increased respiratory effort |
| LA17233-0 | LOINC | Pain with inspiration/expiration-left |
| LA17234-8 | LOINC | Pain with inspiration/expiration-right |
| LA17236-3 | LOINC | Rhonchi/wheezing |
| LA17237-1 | LOINC | Tenderness-left |
| LA17238-9 | LOINC | Tenderness-right |
| LA17212-4 | LOINC | Gunshot wound |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA18229-7 | LOINC | Rales-left |
| LA18230-5 | LOINC | Rales-right |
| LA18231-3 | LOINC | Retraction |
| LA18232-1 | LOINC | Rhonchi-left |
| LA18233-9 | LOINC | Rhonchi-right |
| LA18234-7 | LOINC | Stridor-left |
| LA18235-4 | LOINC | Stridor-right |
| LA18236-2 | LOINC | Implanted device |
| LA18237-0 | LOINC | Wheezing-expiratory-right |
| LA18238-8 | LOINC | Wheezing-expiratory-left |
| LA18239-6 | LOINC | Wheezing-inspiratory-left |
| LA18240-4 | LOINC | Wheezing-inspiratory-right |
| LA18402-0 | LOINC | Breath sounds-equal |
| LA6626-1 | LOINC | Normal |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA22440-4 | LOINC | Swelling |
| LA7423-2 | LOINC | Contusion |
| LA23810-7 | LOINC | Tenderness-general |

Complaint

| | |
|-------------|--|
| Value Set | Complaint - 2.16.840.1.113883.17.3.11.49 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of medical problem or incident reported |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA23843-8 | LOINC | Abdominal pain/problems |
| LA15903-0 | LOINC | Headache |
| LA17117-5 | LOINC | Allergic reaction/stings |
| LA17118-3 | LOINC | Animal bite |
| LA17119-1 | LOINC | Assault |
| LA17120-9 | LOINC | Automated crash notification |
| LA17121-7 | LOINC | Back pain (non-traumatic) |
| LA17122-5 | LOINC | Breathing problems |
| LA17123-3 | LOINC | Burns/explosion |
| LA17124-1 | LOINC | Carbon monoxide poisoning/hazmat/inhalation/chemical/biological/radiological/nuclear |
| LA17125-8 | LOINC | Cardiac arrest/death |
| LA17126-6 | LOINC | Chest pain (non-traumatic) |
| LA17127-4 | LOINC | Choking |
| LA17128-2 | LOINC | Convulsions/seizure |
| LA17129-0 | LOINC | Diabetic problem |
| LA17131-6 | LOINC | Electrocution/lightning |
| LA17132-4 | LOINC | Eye problem/injury |
| LA17133-2 | LOINC | Falls |
| LA17134-0 | LOINC | Healthcare professional/admission |
| LA17135-7 | LOINC | Heart problems/AICD |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17136-5 | LOINC | Heat/cold exposure |
| LA17137-3 | LOINC | Hemorrhage/lacerations |
| LA17138-1 | LOINC | Industrial accident/inaccessible incident/other entrapments (non-vehicle) |
| LA17140-7 | LOINC | Overdose/poisoning/ingestion |
| LA17141-5 | LOINC | Pandemic/epidemic/outbreak |
| LA17142-3 | LOINC | Pregnancy/childbirth/miscarriage |
| LA17143-1 | LOINC | Psychiatric problem/abnormal behavior/suicide attempt |
| LA17144-9 | LOINC | Sick person |
| LA17145-6 | LOINC | Stab/gunshot wound/penetrating trauma |
| LA17146-4 | LOINC | Traffic/transportation incident |
| LA17147-2 | LOINC | Transfer/interfacility/palliative Care |
| LA17148-0 | LOINC | Unconscious/fainting/near-fainting |
| LA17149-8 | LOINC | Unknown problem person down |
| LA17150-6 | LOINC | Standby |
| LA18093-7 | LOINC | Fire |
| LA18209-9 | LOINC | No other appropriate choice |
| LA18210-7 | LOINC | Medical alarm |
| LA18211-5 | LOINC | Well person check |
| LA9553-4 | LOINC | Stroke/CVA |
| LA9555-9 | LOINC | Traumatic injury |
| LA17130-8 | LOINC | Drowning/Diving/SCUBA Accident |
| LA23800-8 | LOINC | Air medical Transport |

Complaint Type

| | |
|-------------|---|
| Value Set | Complaint Type - 2.16.840.1.113883.17.3.11.94 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Relative primacy of complaint |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA17059-9 | LOINC | Other (not listed) |
| LA18923-5 | LOINC | Chief - primary |
| LA18924-3 | LOINC | Secondary |

Confidentiality

| | |
|-------------|--|
| Value Set | Confidentiality - 2.16.840.1.113883.1.11.10228 |
| Code System | HL7 Confidentiality - 2.16.840.1.113883.5.25 |
| Definition | Appropriateness for disclosure of information |

Crew Role Level

| | |
|-------------|---|
| Value Set | CrewRoleLevel - 2.16.840.1.113883.17.3.11.81 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Class of person providing care to an EMS patient, excluding the patient |

| Code | Code System | Print Name |
|----------------|-------------|---|
| LA15276-1 | LOINC | Student |
| LA18695-9 | LOINC | Critical care paramedic |
| LA18696-7 | LOINC | 2009 advanced emergency medical technician (AEMT) |
| LA18697-5 | LOINC | 2009 emergency medical responder (EMR) |
| LA18698-3 | LOINC | 2009 emergency medical technician (EMT) |
| LA18699-1 | LOINC | 2009 paramedic |
| LA18700-7 | LOINC | First responder |
| LA18701-5 | LOINC | EMT-basic |
| LA18702-3 | LOINC | EMT-intermediate |
| LA18703-1 | LOINC | EMT-paramedic |
| LA18704-9 | LOINC | Other healthcare professional |
| LA18705-6 | LOINC | Other non-healthcare professional |
| LA18706-4 | LOINC | Community paramedicine |
| LA4687-5 | LOINC | Physician |
| LA9297-8 | LOINC | Respiratory therapist |
| LOINC_TBDA_610 | LOINC | Nurse Practitioner |
| LOINC_TBDA_611 | LOINC | Physician Assistant |
| LOINC_TBDA_612 | LOINC | Licensed Practical Nurse (LPN) |
| LOINC_TBDA_613 | LOINC | Registered Nurse |

Destination Choice Reason

| | |
|-------------|--|
| Value Set | DestinationChoiceReason - 2.16.840.1.113883.17.3.11.68 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

| Definition | Kind of rationale for selecting a patient destination | |
|------------|---|------------------------------|
| Code | Code System | Print Name |
| LA17059-9 | LOINC | Other (not listed) |
| LA17182-9 | LOINC | Closest facility |
| LA17184-5 | LOINC | Family choice |
| LA17185-2 | LOINC | Insurance status/requirement |
| LA17186-0 | LOINC | Law enforcement choice |
| LA17187-8 | LOINC | On-line medical direction |
| LA17188-6 | LOINC | Patient's choice |
| LA17189-4 | LOINC | Patient's physician's choice |
| LA17190-2 | LOINC | Protocol |
| LA17191-0 | LOINC | Regional specialty center |
| LA18301-4 | LOINC | Diversion |

Destination Prearrival Activation

| | |
|-------------|---|
| Value Set | DestinationPrearrivalActivation - 2.16.840.1.113883.17.3.11.87 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of preparation requested at destination prior to patient arrival |

| Code | Code System | Print Name |
|----------------|-------------|-----------------------|
| LA18117-4 | LOINC | Yes, adult trauma |
| LA18118-2 | LOINC | Yes, cardiac arrest |
| LA18119-0 | LOINC | Yes, obstetrics |
| LA18120-8 | LOINC | Yes, other |
| LA18121-6 | LOINC | Yes, pediatric trauma |
| LA18122-4 | LOINC | Yes, STEMI |
| LA18123-2 | LOINC | Yes, stroke |
| LA32-8 | LOINC | No |
| LOINC_TBDA_538 | LOINC | Yes-Trauma (general) |

Destination Type

| | |
|-------------|--|
| Value Set | DestinationType - 2.16.840.1.113883.17.3.11.69 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of facility |

| Code | Code System | Print Name |
|----------------|-------------|---------------------------------------|
| LA11504-0 | LOINC | Hospital emergency department |
| LA14084-0 | LOINC | Home |
| LA18686-8 | LOINC | Hospital non-emergency department bed |
| LA18687-6 | LOINC | Medical office/clinic |
| LA18688-4 | LOINC | Morgue/mortuary |
| LA18689-2 | LOINC | Nursing home/assisted living facility |
| LA18690-0 | LOINC | Other destination |
| LA18691-8 | LOINC | Other EMS responder (air) |
| LA18692-6 | LOINC | Other EMS responder (ground) |
| LA18693-4 | LOINC | Police/jail |
| LOINC_TBDA_539 | LOINC | Urgent Care |
| LOINC_TBDA_540 | LOINC | Freestanding Emergency Department |

Destination Ward Kind

| | |
|-------------|---|
| Value Set | DestinationWardKind - 2.16.840.1.113883.17.3.11.103 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | The location within the hospital that the patient was taken directly by EMS |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------------------|
| LA22808-2 | LOINC | Hospital-burn |
| LA22809-0 | LOINC | Hospital-cath lab |
| LA22810-8 | LOINC | Hospital-CCU |
| LA22824-9 | LOINC | Hospital-orthopedic |
| LA22811-6 | LOINC | Hospital-endoscopy |
| LA22812-4 | LOINC | Hospital-hospice |
| LA22813-2 | LOINC | Hospital-hyperbaric oxygen treatment |
| LA22814-0 | LOINC | Hospital-ICU |
| LA22815-7 | LOINC | Hospital-labor and delivery |
| LA22816-5 | LOINC | Hospital-medical/surgery |
| LA22817-3 | LOINC | Hospital-mental health |
| LA22818-1 | LOINC | Hospital-MICU |
| LA22819-9 | LOINC | Hospital-NICU |
| LA22820-7 | LOINC | Hospital-nursery |
| LA22821-5 | LOINC | Hospital-peds (general) |

| Code | Code System | Print Name |
|----------------|-------------|--------------------------------------|
| LA22822-3 | LOINC | Hospital-peds ICU |
| LA22823-1 | LOINC | Hospital-OR |
| LA22825-6 | LOINC | Hospital-other |
| LA22826-4 | LOINC | Hospital-outpatient bed |
| LA22827-2 | LOINC | Hospital-radiology services - MRI |
| LA22828-0 | LOINC | Hospital-radiology services - CT/PET |
| LA22829-8 | LOINC | Hospital-radiology services - x-ray |
| LA22830-6 | LOINC | Hospital-radiation |
| LA22831-4 | LOINC | Hospital-rehabilitation |
| LA22832-2 | LOINC | Hospital-SICU |
| LOINC_TBDA_326 | LOINC | Hospital-oncology |
| LOINC_TBDA_327 | LOINC | Hospital-Outpatient Surgery |

Disaster Type

| | |
|-------------|--|
| Value Set | DisasterType - 2.16.840.1.113883.17.3.11.9 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of incident resulting in or likely to result in injuries or clinically adverse events |

| Code | Code System | Print Name |
|-----------|-------------|------------------------------|
| LA17594-5 | LOINC | Weather |
| LA18089-5 | LOINC | Biologic agent |
| LA18090-3 | LOINC | Building failure |
| LA18091-1 | LOINC | Chemical agent |
| LA18092-9 | LOINC | Explosive device |
| LA18093-7 | LOINC | Fire |
| LA18094-5 | LOINC | Hostage event |
| LA18095-2 | LOINC | Mass gathering |
| LA18096-0 | LOINC | Mass illness |
| LA18097-8 | LOINC | Nuclear agent |
| LA18098-6 | LOINC | Radioactive device |
| LA18099-4 | LOINC | Secondary destructive device |
| LA18100-0 | LOINC | Shooting/sniper |
| LA18101-8 | LOINC | Vehicular |

Dispatch Delay Type

| | |
|-------------|--|
| Value Set | DispatchDelayType - 2.16.840.1.113883.17.3.11.50 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of circumstance delaying an EMS dispatch |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17059-9 | LOINC | Other (not listed) |
| LA17183-7 | LOINC | Diversion/failure (of previous unit) |
| LA17579-6 | LOINC | Caller (uncooperative) |
| LA17580-4 | LOINC | High call volume |
| LA17581-2 | LOINC | Location (inability to obtain) |
| LA17582-0 | LOINC | No EMS vehicles (units) available |
| LA17584-6 | LOINC | Technical failure (computer, phone etc.) |
| LA18081-2 | LOINC | None/no delay |
| LA7540-3 | LOINC | Language barrier |

ECG Type

| | |
|-------------|--|
| Value Set | ECGType - 2.16.840.1.113883.17.3.11.19 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of electrocardiogram equipment |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| LA18664-5 | LOINC | 3 lead |
| LA18665-2 | LOINC | 4 lead |
| LA18666-0 | LOINC | 5 lead |
| LA18667-8 | LOINC | 12 lead-left sided (normal) |
| LA18668-6 | LOINC | 12 lead-right sided |
| LA18669-4 | LOINC | 15 lead |
| LA18670-2 | LOINC | 18 lead |
| LA18671-0 | LOINC | Other ECG device |

EMD Performed

| | |
|-------------|---|
| Value Set | EMDPerformed - 2.16.840.1.113883.17.3.11.48 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

| | | |
|------------|---|--|
| Definition | Manner of performing emergency medical dispatch | |
|------------|---|--|

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17151-4 | LOINC | Yes, with pre-arrival instructions |
| LA17152-2 | LOINC | Yes, without pre-arrival instructions |
| LA17153-0 | LOINC | Yes, unknown if pre-arrival instructions given |
| LA32-8 | LOINC | No |

EMS Level Of Service

| | |
|-------------|--|
| Value Set | EMSLevelOfService - 2.16.840.1.113883.17.3.11.70 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Level of service provided for an encounter (as defined by CMS) |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA18102-6 | LOINC | ALS, level 1 |
| LA18103-4 | LOINC | ALS, level 1 emergency |
| LA18104-2 | LOINC | ALS, level 2 |
| LA18105-9 | LOINC | BLS |
| LA18106-7 | LOINC | BLS, emergency |
| LA18107-5 | LOINC | Fixed wing (airplane) |
| LA18108-3 | LOINC | Paramedic intercept |
| LA18109-1 | LOINC | Specialty care transport |
| LA18110-9 | LOINC | Rotary wing (helicopter) |

EMS Medication Administration Device

| | |
|-------------|---|
| Value Set | EMSMedicationAdministrationDevice - 2.16.840.1.113883.17.3.11.108 |
| Code System | SNOMEDCT - 2.16.840.1.113883.6.96 |
| Definition | Kind of device used to administer a substance to a patient |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------------|
| 39849001 | SNOMEDCT | Nasal Oxygen Cannula |
| 427591007 | SNOMEDCT | Non-Rebreather Oxygen Mask |
| 425926003 | SNOMEDCT | Partial Rebreather Oxygen Mask |
| 428285009 | SNOMEDCT | Venturi Mask |
| 398013009 | SNOMEDCT | Subcutaneous port |
| 425478008 | SNOMEDCT | Blow by oxygen mask |

Ethnicity

| | |
|-------------|--|
| Value Set | Ethnicity - 2.16.840.1.113883.1.11.15836 |
| Code System | Race and Ethnicity - CDC - 2.16.840.1.113883.6.238 |
| Definition | Person's ethnic background |

Ethnicity Group

| | |
|-------------|--|
| Value Set | Ethnicity Group - 2.16.840.1.114222.4.11.837 |
| Code System | Race and Ethnicity - CDC - 2.16.840.1.113883.6.238 |
| Definition | Abbreviated set of ethnic backgrounds |

| Code | Code System | Print Name |
|--------|--------------------------|------------------------|
| 2135-2 | Race and Ethnicity - CDC | Hispanic or Latino |
| 2186-5 | Race and Ethnicity - CDC | Not Hispanic or Latino |

Existence Of Contraindications To Thrombolytic Use

| | |
|-------------|--|
| Value Set | ExistenceOfContraindicationsToThrombolyticUse - 2.16.840.1.113883.17.3.11.41 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Confidence that contraindication to thrombolytic use exist |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17114-2 | LOINC | Definite contraindications to thrombolytic use |
| LA17115-9 | LOINC | Possible contraindications to thrombolytic Use |
| LA17116-7 | LOINC | No contraindications to thrombolytic Use |

Extremity Finding Location

| | |
|-------------|---|
| Value Set | ExtremityFindingLocation - 2.16.840.1.113883.17.3.11.37 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Location of finding resulting from EMS extremity assessment |

| Code | Code System | Print Name |
|-----------|-------------|-----------------|
| LA18739-5 | LOINC | Ankle-left |
| LA18740-3 | LOINC | Ankle-right |
| LA18741-1 | LOINC | Arm-upper-left |
| LA18742-9 | LOINC | Arm-upper-right |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| LA18743-7 | LOINC | Elbow-left |
| LA18744-5 | LOINC | Elbow-right |
| LA18745-2 | LOINC | Finger-2nd (index)-left |
| LA18746-0 | LOINC | Finger-2nd (index)-right |
| LA18747-8 | LOINC | Finger-3rd (middle)-left |
| LA18748-6 | LOINC | Finger-3rd (middle)-right |
| LA18749-4 | LOINC | Finger-4th (ring)-left |
| LA18750-2 | LOINC | Finger-4th (ring)-right |
| LA18751-0 | LOINC | Finger-5th (smallest)-left |
| LA18752-8 | LOINC | Finger-5th (smallest)-right |
| LA18753-6 | LOINC | Foot-dorsal-left |
| LA18754-4 | LOINC | Foot-dorsal-right |
| LA18755-1 | LOINC | Foot-plantar-right |
| LA18756-9 | LOINC | Foot-plantar-left |
| LA18757-7 | LOINC | Forearm-left |
| LA18758-5 | LOINC | Forearm-right |
| LA18759-3 | LOINC | Hand-dorsal-left |
| LA18760-1 | LOINC | Hand-dorsal-right |
| LA18761-9 | LOINC | Hand-palm-right |
| LA18762-7 | LOINC | Hand-palm-left |
| LA18763-5 | LOINC | Hip-left |
| LA18764-3 | LOINC | Hip-right |
| LA18765-0 | LOINC | Wrist-right |
| LA18766-8 | LOINC | Wrist-left |
| LA18767-6 | LOINC | Knee-left |
| LA18768-4 | LOINC | Knee-right |
| LA18769-2 | LOINC | Leg-lower-left |
| LA18770-0 | LOINC | Leg-lower-right |
| LA18771-8 | LOINC | Leg-upper-right |
| LA18772-6 | LOINC | Leg-upper-left |
| LA18773-4 | LOINC | Shoulder-left |
| LA18774-2 | LOINC | Shoulder-right |
| LA18775-9 | LOINC | Thumb-left |
| LA18776-7 | LOINC | Thumb-right |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA18777-5 | LOINC | Toe-1st (big)-left |
| LA18778-3 | LOINC | Toe-1st (big)-right |
| LA18779-1 | LOINC | Toe-2nd-left |
| LA18780-9 | LOINC | Toe-2nd-right |
| LA18781-7 | LOINC | Toe-3rd-left |
| LA18782-5 | LOINC | Toe-3rd-right |
| LA18783-3 | LOINC | Toe-4th-left |
| LA18784-1 | LOINC | Toe-4th-right |
| LA18785-8 | LOINC | Toe-5th (smallest)-left |
| LA18786-6 | LOINC | Toe-5th (smallest)-right |

Eye Assessment Finding

| | |
|-------------|---|
| Value Set | EyeAssessmentFinding - 2.16.840.1.113883.17.3.11.38 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS eye assessment |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA14698-7 | LOINC | Missing |
| LA15255-5 | LOINC | Reactive |
| LA15256-3 | LOINC | Nonreactive |
| LA17275-1 | LOINC | 1 mm |
| LA17276-9 | LOINC | 2 mm |
| LA17277-7 | LOINC | 3 mm |
| LA17278-5 | LOINC | 4 mm |
| LA17279-3 | LOINC | 5 mm |
| LA17280-1 | LOINC | 6 mm |
| LA17281-9 | LOINC | 7 mm |
| LA17282-7 | LOINC | Clouded |
| LA17283-5 | LOINC | Hyphema |
| LA17284-3 | LOINC | Open globe |
| LA17285-0 | LOINC | Pupil-irregular/teardrop |
| LA17710-7 | LOINC | Blind |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |

| Code | Code System | Print Name |
|----------------|-------------|------------------------|
| LA18250-3 | LOINC | Cataract present |
| LA18251-1 | LOINC | Dysconjugate gaze |
| LA18253-7 | LOINC | Jaundiced sclera |
| LA18254-5 | LOINC | Nonreactive prosthetic |
| LA18255-2 | LOINC | Nystagmus noted |
| LA18256-0 | LOINC | PERRL |
| LA18257-8 | LOINC | Sluggish |
| LA18258-6 | LOINC | 8 mm or > |
| LA6630-3 | LOINC | Not done |
| LOINC_TBDA_541 | LOINC | Glaucoma Present |
| LOINC_TBDA_542 | LOINC | Swelling |
| LOINC_TBDA_543 | LOINC | Contusion |
| LOINC_TBDA_544 | LOINC | Puncture/Stab wound |

Eye Finding Location

| | |
|-------------|---|
| Value Set | EyeFindingLocation - 2.16.840.1.113883.17.3.11.39 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Location of finding resulting from EMS eye assessment |

| Code | Code System | Print Name |
|-----------|-------------|----------------|
| LA18787-4 | LOINC | Eyes-bilateral |
| LA18788-2 | LOINC | Eye-left |
| LA18789-0 | LOINC | Eye-right |

FDA Route of Administration

| | |
|-----------|-----------------------------|
| Value Set | FDA Route of Administration |
|-----------|-----------------------------|

Face Assessment Finding

| | |
|-------------|--|
| Value Set | FaceAssessmentFinding - 2.16.840.1.113883.17.3.11.27 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS face assessment |

| Code | Code System | Print Name |
|-----------|-------------|---------------------|
| LA17208-2 | LOINC | Bleeding controlled |

| Code | Code System | Print Name |
|----------------|-------------|---------------------------|
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17211-6 | LOINC | Drainage |
| LA17213-2 | LOINC | Mass/lesion |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17216-5 | LOINC | Asymmetric smile or droop |
| LA17212-4 | LOINC | Gunshot Wound |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LOINC_TBDA_545 | LOINC | Crush Injury |
| LOINC_TBDA_546 | LOINC | Swelling |
| LOINC_TBDA_547 | LOINC | Contusion |
| LOINC_TBDA_548 | LOINC | Tenderness |

First Monitored Rhythm

| | |
|-------------|---|
| Value Set | FirstMonitoredRhythm - 2.16.840.1.113883.17.3.11.14 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of rhythm found in a cardiac arrest patient on initial field examination |

| Code | Code System | Print Name |
|-----------|-------------|----------------------------------|
| LA17068-0 | LOINC | Asystole |
| LA17070-6 | LOINC | PEA |
| LA17071-4 | LOINC | Unknown AED non-shockable rhythm |
| LA17072-2 | LOINC | Unknown AED shockable rhythm |
| LA17073-0 | LOINC | Ventricular fibrillation |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| LA17074-8 | LOINC | Ventricular tachycardia-pulseless |

Glasgow Coma Score Special Circumstances

| | |
|-------------|--|
| Value Set | GlasgowComaScoreSpecialCircumstances - 2.16.840.1.113883.17.3.11.89 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Circumstance confounding the assessment of one or more Glasgow Coma Scale observations |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17102-7 | LOINC | Initial GCS has legitimate values without interventions such as intubation and sedation |
| LA17103-5 | LOINC | Eye obstruction prevents eye assessment |
| LA17104-3 | LOINC | Patient chemically sedated |
| LA17105-0 | LOINC | Patient chemically paralyzed |
| LA17106-8 | LOINC | Patient intubated |

HL7 Administrative Gender

| | |
|-------------|---|
| Value Set | HL7 Administrative Gender |
| Description | The gender of a person used for administrative purposes (as opposed to clinical gender) |

HL7 Confidentiality

| | |
|-------------|--|
| Value Set | HL7 Confidentiality |
| Description | Types of privacy metadata classifying an IT resource (data, information object, service, or system capability) according to its level of sensitivity, which is based on an analysis of applicable privacy policies and the risk of financial, reputational, or other harm to an individual or entity that could result if made available or disclosed to unauthorized individuals, entities, or processes. |

HL7 Human Language

| | |
|-------------|--|
| Value Set | HL7 Human Language |
| Description | Codes for the Representation of Names of Languages |

Head Assessment Finding

| | |
|-----------|--|
| Value Set | HeadAssessmentFinding - 2.16.840.1.113883.17.3.11.26 |
|-----------|--|

| | |
|-------------|--|
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS head assessment |

| Code | Code System | Print Name |
|----------------|-------------|-----------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17210-8 | LOINC | Decapitation |
| LA17211-6 | LOINC | Drainage |
| LA17213-2 | LOINC | Mass/lesion |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17212-4 | LOINC | Gunshot Wound |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LOINC_TBDA_549 | LOINC | Crush Injury |
| LOINC_TBDA_550 | LOINC | Swelling |
| LOINC_TBDA_551 | LOINC | Contusion |
| LOINC_TBDA_552 | LOINC | Tenderness |

Heart Assessment Finding

| | |
|-------------|---|
| Value Set | HeartAssessmentFinding - 2.16.840.1.113883.17.3.11.30 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS heart assessment |

| Code | Code System | Print Name |
|-----------|-------------|------------------------|
| LA17239-7 | LOINC | Heart sounds decreased |
| LA17240-5 | LOINC | Murmur-diastolic |

| Code | Code System | Print Name |
|-----------|-------------|-----------------|
| LA17241-3 | LOINC | Murmur-systolic |
| LA18241-2 | LOINC | Clicks |
| LA18242-0 | LOINC | S1 |
| LA18243-8 | LOINC | S2 |
| LA18244-6 | LOINC | S3 |
| LA18245-3 | LOINC | S4 |
| LA18246-1 | LOINC | Rubs |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |

Human language

| | |
|-------------|--|
| Value Set | Human language - 2.16.840.1.113883.1.11.11526 |
| Code System | HL7 Human Language - 2.16.840.1.113883.6.121 |
| Definition | Codes for the Representation of Names of Languages |

IC D-10

| | |
|-------------|--|
| Value Set | ICD-10 |
| Description | Classifications for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases |

ICD-10 CM

| | |
|-------------|--|
| Value Set | ICD-10 CM |
| Description | International Classification of Diseases, 10th Revision, Clinical Modification |

ICD-10 PCS

| | |
|-------------|--------------------------------|
| Value Set | ICD-10 PCS |
| Description | ICD-10 Procedure Coding System |

Incident Outcome

| | |
|-------------|--|
| Value Set | IncidentOutcome - 2.16.840.1.113883.17.3.11.64 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Outcome of an emergency medical services encounter |

| Code | Code System | Print Name |
|----------------|-------------|--|
| LA17154-8 | LOINC | Patient treated, transported by EMS |
| LA17155-5 | LOINC | Canceled (prior to arrival at scene) |
| LA17156-3 | LOINC | No patient found (canceled on scene) |
| LA17159-7 | LOINC | Patient evaluated, no treatment/transport required |
| LA17160-5 | LOINC | Patient refused evaluation/care (with transport) |
| LA17161-3 | LOINC | Patient treated, released (AMA) |
| LA17162-1 | LOINC | Patient treated, transferred care to another EMS professional |
| LA17163-9 | LOINC | Patient treated, transported by law enforcement |
| LA17164-7 | LOINC | Patient treated, transported by private vehicle |
| LA17165-4 | LOINC | Standby-no services or support provided |
| LA17166-2 | LOINC | Standby-public safety, fire, or EMS operational support provided |
| LA17167-0 | LOINC | Transport of body parts or organs only |
| LA18080-4 | LOINC | Patient treated, released (per protocol) |
| LA18212-3 | LOINC | Assist, agency |
| LA18213-1 | LOINC | Assist, public |
| LA18214-9 | LOINC | Assist, unit |
| LA18215-6 | LOINC | No patient contact (canceled on scene) |
| LA18216-4 | LOINC | Patient refused evaluation/care (without transport) |
| LOINC_TBDA_561 | LOINC | Patient Dead at Scene-No Resuscitation Attempted (With Transport) |
| LOINC_TBDA_562 | LOINC | Patient Dead at Scene-No Resuscitation Attempted (Without Transport) |
| LOINC_TBDA_563 | LOINC | Patient Dead at Scene-Resuscitation Attempted (Without Transport) |
| LOINC_TBDA_564 | LOINC | Patient Dead at Scene-Resuscitation Attempted (With Transport) |

Infusion Site

| | |
|-------------|---|
| Value Set | Infusion Site - 2.16.840.1.113883.17.3.11.56 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Anatomical location of administered infusion, typically intravenous |

| Code | Code System | Print Name |
|-----------|-------------|--------------|
| LA18757-7 | LOINC | Forearm-left |

| Code | Code System | Print Name |
|----------------|-------------|--|
| LA18758-5 | LOINC | Forearm-right |
| LA18790-8 | LOINC | Antecubital-left |
| LA18791-6 | LOINC | Antecubital-right |
| LA18792-4 | LOINC | External jugular-left |
| LA18793-2 | LOINC | External jugular-right |
| LA18794-0 | LOINC | Femoral-left |
| LA18795-7 | LOINC | Femoral-right |
| LA18796-5 | LOINC | Foot-left |
| LA18797-3 | LOINC | Foot-right |
| LA18798-1 | LOINC | Hand-right |
| LA18799-9 | LOINC | Hand-left |
| LA18800-5 | LOINC | Internal jugular-left |
| LA18801-3 | LOINC | Internal jugular-right |
| LA18802-1 | LOINC | IO-femur-left distal |
| LA18803-9 | LOINC | IO-femur-right distal |
| LA18804-7 | LOINC | IO-humerus-left |
| LA18805-4 | LOINC | IO-humerus-right |
| LA18806-2 | LOINC | IO-iliac crest-left |
| LA18807-0 | LOINC | IO-iliac crest-right |
| LA18808-8 | LOINC | IO-sternum |
| LA18809-6 | LOINC | IO-tibia-left distal |
| LA18810-4 | LOINC | IO-tibia-right distal |
| LA18811-2 | LOINC | IO-tibia-left proximal |
| LA18812-0 | LOINC | IO-tibia-right proximal |
| LA18813-8 | LOINC | Other central access (PICC, portacath) |
| LA18814-6 | LOINC | Other peripheral access |
| LA18815-3 | LOINC | Scalp |
| LA18816-1 | LOINC | Subclavian-left |
| LA18817-9 | LOINC | Subclavian-right |
| LA18818-7 | LOINC | Umbilical |
| LOINC_TBDA_553 | LOINC | Lower Extremity- Left |
| LOINC_TBDA_554 | LOINC | Lower Extremity- Right |
| LOINC_TBDA_555 | LOINC | Venous Cutdown-Left Lower Extremity |
| LOINC_TBDA_556 | LOINC | Venous Cutdown- Right Lower Extremity |

| Code | Code System | Print Name |
|----------------|-------------|------------------|
| LOINC_TBDA_557 | LOINC | Upper Arm- Left |
| LOINC_TBDA_558 | LOINC | Upper Arm- Right |
| LOINC_TBDA_559 | LOINC | Radial- Left |
| LOINC_TBDA_560 | LOINC | Radial- Right |

LOINC

| | |
|-------------|---|
| Value Set | LOINC |
| Description | Logical Observation Identifiers Names and Codes |

Length Based Weight Class

| | |
|-------------|---|
| Value Set | LengthBasedWeightClass - 2.16.840.1.113883.17.3.11.24 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Weight category estimated by length |

| Code | Code System | Print Name |
|-----------|-------------|------------|
| LA15553-3 | LOINC | Blue |
| LA15554-1 | LOINC | Grey |
| LA15555-8 | LOINC | Green |
| LA17192-8 | LOINC | Pink |
| LA17193-6 | LOINC | Red |
| LA17194-4 | LOINC | Purple |
| LA17195-1 | LOINC | Yellow |
| LA17196-9 | LOINC | Orange |
| LA4457-3 | LOINC | White |

Level Of Responsiveness

| | |
|-------------|--|
| Value Set | LevelOfResponsiveness - 2.16.840.1.113883.17.3.11.21 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of stimulation necessary to elicit a patient reaction |

| Code | Code System | Print Name |
|-----------|-------------|------------|
| LA17107-6 | LOINC | Painful |
| LA17108-4 | LOINC | Verbal |
| LA9340-6 | LOINC | Alert |

| Code | Code System | Print Name |
|----------|-------------|--------------|
| LA9343-0 | LOINC | Unresponsive |

Mechanism Of Injury

| | |
|-------------|---|
| Value Set | MechanismOfInjury - 2.16.840.1.113883.17.3.11.1 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of physical phenomenon causing an injury |

| Code | Code System | Print Name |
|-----------|-------------|-------------|
| LA17335-3 | LOINC | Blunt |
| LA17336-1 | LOINC | Penetrating |
| LA46-8 | LOINC | Other |
| LA7318-4 | LOINC | Burn |

Medication Administration Route

| | |
|-------------|--|
| Value Set | MedicationAdministrationRoute - 2.16.840.1.113883.17.3.11.43 |
| Code System | FDA Route of Administration - 2.16.840.1.113883.3.26.1.1.1 |
| Definition | Physical route for introducing medications into a patient |
| Description | Subset of FDA routes of administration. Mappings to NEMESIS route codes, including modeling of orthogonal concepts (e.g., devices), is included in implementation guide text appendix. |

| Code | Code System | Print Name |
|--------|-----------------------------|--------------------------|
| C38208 | FDA Route of Administration | Endotracheal |
| C38246 | FDA Route of Administration | Intragastric |
| C38216 | FDA Route of Administration | Respiratory (Inhalation) |
| C38222 | FDA Route of Administration | Intra-Arterial |
| C38284 | FDA Route of Administration | Nasal |
| C28161 | FDA Route of Administration | Intramuscular |
| C38255 | FDA Route of Administration | Intraocular |
| C38276 | FDA Route of Administration | Intravenous |

| Code | Code System | Print Name |
|--------|-----------------------------|------------------|
| C38285 | FDA Route of Administration | Nasogastric |
| C38287 | FDA Route of Administration | Ophthalmic |
| C38288 | FDA Route of Administration | Oral |
| C38290 | FDA Route of Administration | Other |
| C38192 | FDA Route of Administration | Auricular (Otic) |
| C38295 | FDA Route of Administration | Rectal |
| C38299 | FDA Route of Administration | Subcutaneous |
| C38300 | FDA Route of Administration | Sublingual |
| C38304 | FDA Route of Administration | Topical |
| C38305 | FDA Route of Administration | Transdermal |
| C38271 | FDA Route of Administration | Urethral |
| C38193 | FDA Route of Administration | Buccal |
| C38238 | FDA Route of Administration | Intradermal |
| C64987 | FDA Route of Administration | Intraosseous |
| C38250 | FDA Route of Administration | Intralesional |

Medication Administration Site

| | |
|-------------|---|
| Value Set | MedicationAdministrationSite - 2.16.840.1.113883.17.3.11.109 |
| Code System | SNOMEDCT - 2.16.840.1.113883.6.96 |
| Definition | Specifications for site of substance administration when Route is insufficiently specific |

| Code | Code System | Print Name |
|-----------|-------------|---|
| 280361007 | SNOMEDCT | Tracheostomy stoma |
| 15562006 | SNOMEDCT | Structure of respiratory region of nose |

Medication Authorization Type

| | |
|-------------|--|
| Value Set | MedicationAuthorizationType - 2.16.840.1.113883.17.3.11.47 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Channel or mode by which a medication administration is authorized by a licensed clinician |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| LA17187-8 | LOINC | On-line medical direction |
| LA18654-6 | LOINC | On-scene |
| LA18655-3 | LOINC | Protocol (standing order) |
| LA18656-1 | LOINC | Written orders (patient specific) |

Medication Complication

| | |
|-------------|--|
| Value Set | MedicationComplication - 2.16.840.1.113883.17.3.11.45 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of abnormal effect associated with the administration of a medication |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------|
| LA137-2 | LOINC | None |
| LA15098-9 | LOINC | Nausea |
| LA15099-7 | LOINC | Vomiting |
| LA15424-7 | LOINC | Diarrhea |
| LA17059-9 | LOINC | Other (not listed) |
| LA17392-4 | LOINC | Altered mental status |
| LA17393-2 | LOINC | Apnea |
| LA17394-0 | LOINC | Bradycardia |
| LA17396-5 | LOINC | Hypoxia |
| LA20641-9 | LOINC | Itching |
| LA17713-1 | LOINC | Injury |
| LA17714-9 | LOINC | Tachycardia |
| LA18266-9 | LOINC | Bradypnea |
| LA18267-7 | LOINC | Tachypnea |
| LA7418-2 | LOINC | Bleeding |
| LA7434-9 | LOINC | Extravasation |
| LA7443-0 | LOINC | Hypotension |
| LA7444-8 | LOINC | Hypertension |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA9540-1 | LOINC | Hyperthermia |
| LA9541-9 | LOINC | Hypothermia |
| LA9548-4 | LOINC | Respiratory distress |
| LA20642-7 | LOINC | Urticaria |

Medication Not Given Reason

| | |
|-------------|---|
| Value Set | MedicationNotGivenReason - 2.16.840.1.113883.17.3.11.92 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Rationale for not administering an otherwise indicated medication |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA15185-4 | LOINC | Unable to complete |
| LA18921-9 | LOINC | Medication already taken |
| LA18922-7 | LOINC | Medication allergy |
| LA18925-0 | LOINC | Denied by order |
| LA4216-3 | LOINC | Contraindicated |
| LA4389-8 | LOINC | Refused |

Mental Status Finding

| | |
|-------------|--|
| Value Set | MentalStatusFinding - 2.16.840.1.113883.17.3.11.84 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS mental assessment |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------------|
| LA17286-8 | LOINC | Normal baseline for patient |
| LA17287-6 | LOINC | Combative |
| LA17288-4 | LOINC | Oriented-person |
| LA17289-2 | LOINC | Oriented-place |
| LA17290-0 | LOINC | Oriented-time |
| LA18259-4 | LOINC | Oriented-event |
| LA18260-2 | LOINC | Pharmacologically sedated/paralyzed |
| LA6560-2 | LOINC | Confused |
| LA6630-3 | LOINC | Not done |
| LA7438-0 | LOINC | Hallucinations |

| Code | Code System | Print Name |
|-----------|-------------|--------------|
| LA9343-0 | LOINC | Unresponsive |
| LA6150-2 | LOINC | Agitation |
| LA23818-0 | LOINC | Somnolent |
| LA17666-1 | LOINC | Stupor |

Method Of ECG Interpretation

| | |
|-------------|--|
| Value Set | MethodOfECGInterpretation - 2.16.840.1.113883.17.3.11.20 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Method for transforming ECG data into a clinical finding |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA18682-7 | LOINC | Computer interpretation |
| LA18683-5 | LOINC | Manual interpretation |
| LA18684-3 | LOINC | Transmission with no interpretation |
| LA18685-0 | LOINC | Transmission with remote interpretation |

Neck Assessment Finding

| | |
|-------------|--|
| Value Set | NeckAssessmentFinding - 2.16.840.1.113883.17.3.11.28 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS neck assessment |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17210-8 | LOINC | Decapitation |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17217-3 | LOINC | Jugular vein distention - JVD |
| LA17219-9 | LOINC | Subcutaneous air |
| LA17212-4 | LOINC | Gunshot wound |
| LA17612-5 | LOINC | Stridor |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18226-3 | LOINC | Foreign body |
| LA18227-1 | LOINC | Tracheal deviation-right |
| LA18228-9 | LOINC | Tracheal deviation-left |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA17229-8 | LOINC | Crush Injury |
| LA22440-4 | LOINC | Swelling |
| LA7423-2 | LOINC | Contusion |
| LA17709-9 | LOINC | Tenderness |

Neurological Assessment Finding

| | |
|-------------|--|
| Value Set | NeurologicalAssessmentFinding - 2.16.840.1.113883.17.3.11.40 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS neurological assessment |

| Code | Code System | Print Name |
|-----------|-------------|------------------------------|
| LA15899-0 | LOINC | Seizures |
| LA17286-8 | LOINC | Normal baseline for patient |
| LA17291-8 | LOINC | Cerebellar function-abnormal |
| LA17292-6 | LOINC | Cerebellar function-normal |
| LA17293-4 | LOINC | Gait-abnormal |
| LA17294-2 | LOINC | Gait-normal |
| LA17295-9 | LOINC | Hemiplegia-left |
| LA17296-7 | LOINC | Hemiplegia-right |
| LA17297-5 | LOINC | Speech-normal |
| LA17298-3 | LOINC | Speech-slurring |
| LA17299-1 | LOINC | Strength-normal |
| LA17300-7 | LOINC | Strength-symmetric |
| LA17301-5 | LOINC | Tremors |
| LA17302-3 | LOINC | Weakness-facial droop-left |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| LA17303-1 | LOINC | Weakness-facial droop-right |
| LA17304-9 | LOINC | Weakness-left sided |
| LA17305-6 | LOINC | Weakness-right sided |
| LA18261-0 | LOINC | Aphagia |
| LA18262-8 | LOINC | Aphasia |
| LA18263-6 | LOINC | Decerebrate posturing |
| LA18264-4 | LOINC | Decorticate posturing |
| LA18265-1 | LOINC | Strength-asymmetric |
| LA6630-3 | LOINC | Not done |
| LA23822-2 | LOINC | Arm Drift-Left |
| LA23823-0 | LOINC | Arm Drift-Right |

Non Drug Allergy Type

| | |
|-------------|--|
| Value Set | NonDrugAllergyType - 2.16.840.1.113883.17.3.11.83 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kinds of environmental allergens |
| Description | Valid values are SNOMED CT descendants of 419199007 Allergy to Substance or 258155009 photosensitization due to sun. Reference the NEMESIS Suggested Lists at: http://nemsis.org/v3/resources.html |

Organ System

| | |
|-------------|--|
| Value Set | OrganSystem - 2.16.840.1.113883.17.3.11.77 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Biological systems for the classification of disorders |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA16968-2 | LOINC | Gastrointestinal |
| LA18114-1 | LOINC | General/global |
| LA18277-6 | LOINC | Cardiovascular |
| LA18278-4 | LOINC | CNS/neuro |
| LA18279-2 | LOINC | Endocrine/metabolic |
| LA18281-8 | LOINC | Lymphatic/immune |
| LA18282-6 | LOINC | Musculoskeletal/skin |
| LA18283-4 | LOINC | Pulmonary |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| LA18284-2 | LOINC | Renal |
| LA18285-9 | LOINC | Reproductive |
| LA9534-4 | LOINC | Behavioral / psychiatric disorder |

Pelvis Genitourinary Assessment

| | |
|-------------|--|
| Value Set | PelvisGenitourinaryAssessment - 2.16.840.1.113883.17.3.11.33 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS pelvic and genitourinary assessment |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17213-2 | LOINC | Mass/lesion |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17212-4 | LOINC | Gunshot wound |
| LA17248-8 | LOINC | Bleeding-rectal |
| LA17249-6 | LOINC | Bleeding-urethral |
| LA17250-4 | LOINC | Bleeding-vaginal |
| LA17251-2 | LOINC | Genital injury |
| LA17252-0 | LOINC | Pelvic fracture |
| LA17253-8 | LOINC | Pelvic instability |
| LA17254-6 | LOINC | Penile priapism/erection |
| LA17255-3 | LOINC | Pregnant-crowning |
| LA17709-9 | LOINC | Tenderness |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |

| Code | Code System | Print Name |
|----------------|-------------|--------------|
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA17229-8 | LOINC | Crush Injury |
| LA7423-2 | LOINC | Contusion |
| LOINC_TBDA_587 | LOINC | Swelling |

Pregnancy

| | |
|-------------|--|
| Value Set | Pregnancy - 2.16.840.1.113883.17.3.11.42 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Estimation of patient's pregnant status and maturity |

| Code | Code System | Print Name |
|----------------|-------------|--------------------------------------|
| LA17329-6 | LOINC | Yes, confirmed less than 12 weeks |
| LA17330-4 | LOINC | Yes, confirmed 12 to 20 weeks |
| LA17331-2 | LOINC | Yes, confirmed greater than 20 weeks |
| LA17332-0 | LOINC | Possible, unconfirmed |
| LA32-8 | LOINC | No |
| LOINC_TBDA_588 | LOINC | Yes, Weeks unknown |

Primary Hospital Capability

| | |
|-------------|--|
| Value Set | PrimaryHospitalCapability - 2.16.840.1.113883.17.3.11.104 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Characteristic hospital capabilities that might be germane to an EMS destination selection |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------|
| LA22833-0 | LOINC | Behavioral health |
| LA22834-8 | LOINC | Burn center |
| LA22835-5 | LOINC | Critical access hospital |
| LA22836-3 | LOINC | Hospital - general |
| LA22837-1 | LOINC | Neonatal center |
| LA22838-9 | LOINC | Pediatric center |
| LA22841-3 | LOINC | Stroke center |
| LA22842-1 | LOINC | Rehabilitation center |
| LA22843-9 | LOINC | Trauma center level 1 |

| Code | Code System | Print Name |
|----------------|-------------|----------------------------------|
| LA22844-7 | LOINC | Trauma center level 2 |
| LA22845-4 | LOINC | Trauma center level 3 |
| LA22846-2 | LOINC | Trauma center level 4 |
| LA22847-0 | LOINC | Trauma center level 5 |
| LA22848-8 | LOINC | Cardiac-STEMI/PCI Capable |
| LA22849-6 | LOINC | Cardiac-STEMI/PCI Capable (24/7) |
| LOINC_TBDA_416 | LOINC | Cardiac-STEMI/Non-PCI Capable |

Prior Care Provider Role

| | |
|-------------|--|
| Value Set | PriorCareProviderRole - 2.16.840.1.113883.17.3.11.12 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Role of person providing care to a patient before the arrival of EMS personnel |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA18016-8 | LOINC | First responder-fire, law, EMS |
| LA18017-6 | LOINC | Healthcare professional-non-EMS |
| LA18018-4 | LOINC | Lay person-non-family |
| LA18019-2 | LOINC | Other EMS professional - not part of dispatched response |
| LA9277-0 | LOINC | Family member |

Procedure Complication Type

| | |
|-------------|--|
| Value Set | ProcedureComplicationType - 2.16.840.1.113883.17.3.11.58 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of abnormal effect associated with the performance of a procedure |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------|
| LA137-2 | LOINC | None |
| LA15098-9 | LOINC | Nausea |
| LA15099-7 | LOINC | Vomiting |
| LA15424-7 | LOINC | Diarrhea |
| LA17059-9 | LOINC | Other (not listed) |
| LA17392-4 | LOINC | Altered mental status |
| LA17393-2 | LOINC | Apnea |
| LA17394-0 | LOINC | Bradycardia |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| LA17396-5 | LOINC | Hypoxia |
| LA20641-9 | LOINC | Itching |
| LA17489-8 | LOINC | Esophageal intubation-immediately |
| LA17490-6 | LOINC | Esophageal intubation-other |
| LA17713-1 | LOINC | Injury |
| LA17714-9 | LOINC | Tachycardia |
| LA18267-7 | LOINC | Tachypnea |
| LA7418-2 | LOINC | Bleeding |
| LA7434-9 | LOINC | Extravasation |
| LA7443-0 | LOINC | Hypotension |
| LA7444-8 | LOINC | Hypertension |
| LA9540-1 | LOINC | Hyperthermia |
| LA9541-9 | LOINC | Hypothermia |
| LA9548-4 | LOINC | Respiratory distress |
| LA20642-7 | LOINC | Urticaria |
| LA18266-9 | LOINC | Bradypnea |

Protocol

| | |
|-------------|---|
| Value Set | Protocol - 2.16.840.1.113883.17.3.11.73 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Clinical category of formal guideline used to direct care |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17398-1 | LOINC | Airway |
| LA17491-4 | LOINC | Airway-failed |
| LA17492-2 | LOINC | Airway-obstruction/foreign body |
| LA17494-8 | LOINC | Airway-Rapid Sequence Induction (RSI-Paralytic) |
| LA17495-5 | LOINC | Airway-sedation assisted (nonparalytic) |
| LA17496-3 | LOINC | Cardiac arrest- asystole |
| LA17497-1 | LOINC | Cardiac arrest- pulseless electrical activity |
| LA17498-9 | LOINC | Cardiac arrest- ventricular fibrillation/pulseless ventricular tachycardia |
| LA17499-7 | LOINC | Cardiac arrest-hypothermia-therapeutic |
| LA17500-2 | LOINC | Cardiac arrest-post resuscitation care |
| LA17501-0 | LOINC | Environmental-altitude sickness |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17502-8 | LOINC | Environmental-cold exposure |
| LA17503-6 | LOINC | Environmental-frostbite/cold Injury |
| LA17504-4 | LOINC | Environmental-heat exposure/exhaustion |
| LA17505-1 | LOINC | Environmental-heat stroke/hyperthermia |
| LA17506-9 | LOINC | Environmental-hypothermia |
| LA17507-7 | LOINC | Exposure-airway/inhalation irritants |
| LA17508-5 | LOINC | Exposure-biological/infectious |
| LA17509-3 | LOINC | Exposure-blistering agents |
| LA17510-1 | LOINC | Exposure-carbon monoxide/smoke inhalation |
| LA17511-9 | LOINC | Exposure-chemicals to eye |
| LA17512-7 | LOINC | Exposure-cyanide |
| LA17513-5 | LOINC | Exposure-explosive/blast injury |
| LA17514-3 | LOINC | Exposure-nerve agents |
| LA17515-0 | LOINC | Exposure-radiologic agents |
| LA17516-8 | LOINC | General-back pain |
| LA17517-6 | LOINC | General-behavioral/patient restraint |
| LA17518-4 | LOINC | General-dental problems |
| LA17519-2 | LOINC | General-epistaxis |
| LA17520-0 | LOINC | General-fever |
| LA17521-8 | LOINC | General-individualized patient protocol |
| LA17522-6 | LOINC | General-indwelling medical devices/equipment |
| LA17523-4 | LOINC | General-IV access |
| LA17524-2 | LOINC | General-medical device malfunction |
| LA17525-9 | LOINC | General-pain control |
| LA17526-7 | LOINC | General-spinal immobilization/clearance |
| LA17527-5 | LOINC | General-universal patient care/initial patient contact |
| LA17528-3 | LOINC | Injury-amputation |
| LA17529-1 | LOINC | Injury-bites and envenomations-land |
| LA17530-9 | LOINC | Injury-bites and envenomations-marine |
| LA17531-7 | LOINC | Injury-bleeding/hemorrhage control |
| LA17532-5 | LOINC | Injury-burns-thermal |
| LA17533-3 | LOINC | Injury-cardiac arrest |
| LA17534-1 | LOINC | Injury-crush syndrome |
| LA17535-8 | LOINC | Injury-diving emergencies |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17536-6 | LOINC | Injury-drowning/near drowning |
| LA17537-4 | LOINC | Injury-electrical injuries |
| LA17538-2 | LOINC | Injury-extremity |
| LA17539-0 | LOINC | Injury-eye |
| LA17540-8 | LOINC | Injury-head |
| LA17541-6 | LOINC | Injury-impaled object |
| LA17542-4 | LOINC | Injury-multisystem |
| LA17543-2 | LOINC | Injury-spinal cord |
| LA17544-0 | LOINC | Medical-abdominal pain |
| LA17545-7 | LOINC | Medical-allergic reaction/anaphylaxis |
| LA17546-5 | LOINC | Medical-altered mental status |
| LA17547-3 | LOINC | Medical-bradycardia |
| LA17548-1 | LOINC | Medical-cardiac chest pain |
| LA17549-9 | LOINC | Medical-diarrhea |
| LA17550-7 | LOINC | Medical-hyperglycemia |
| LA17551-5 | LOINC | Medical-hypertension |
| LA17552-3 | LOINC | Medical-hypoglycemia/diabetic emergency |
| LA17553-1 | LOINC | Medical-hypotension/shock (non-trauma) |
| LA17554-9 | LOINC | Medical-influenza-like Illness/ upper respiratory infection |
| LA17555-6 | LOINC | Medical-nausea/vomiting |
| LA17556-4 | LOINC | Medical-newborn/ neonatal resuscitation |
| LA17557-2 | LOINC | General-overdose/poisoning/toxic ingestion |
| LA17558-0 | LOINC | Medical-pulmonary edema/CHF |
| LA17559-8 | LOINC | Medical-respiratory distress/asthma/COPD/reactive airway disease |
| LA17560-6 | LOINC | Medical-seizure |
| LA17561-4 | LOINC | Medical-ST-elevation myocardial infarction (STEMI) |
| LA17562-2 | LOINC | Medical-stroke/TIA |
| LA17563-0 | LOINC | Medical-supraventricular tachycardia (including atrial fibrillation) |
| LA17564-8 | LOINC | Medical-syncope |
| LA17565-5 | LOINC | Medical-ventricular tachycardia (with pulse) |
| LA17566-3 | LOINC | OB/GYN-childbirth/labor/delivery |
| LA17567-1 | LOINC | OB/GYN-eclampsia |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17568-9 | LOINC | OB/GYN-gynecologic emergencies |
| LA17569-7 | LOINC | OB/GYN-pregnancy related emergencies |
| LA17570-5 | LOINC | OB/GYN-post-partum hemorrhage |
| LA18269-3 | LOINC | General-cardiac arrest |
| LA46-8 | LOINC | Other |
| LA6630-3 | LOINC | Not done |
| LA23828-9 | LOINC | Injury-Conducted Electrical Weapon (e.g., Taser) |
| LA23829-7 | LOINC | Injury-Facial Trauma |
| LA23830-5 | LOINC | Injury-General Trauma Management |
| LA23831-3 | LOINC | Injury-Lightning/Lightning Strike |
| LA23832-1 | LOINC | Injury-SCUBA Injury/Accidents |
| LA23833-9 | LOINC | Injury-Topical Chemical Burn |
| LA23834-7 | LOINC | Medical-Beta Blocker Poisoning/Overdose |
| LA23835-4 | LOINC | Medical-Calcium Channel Blocker Poisoning/Overdose |
| LA23836-2 | LOINC | Medical-Opioid Poisoning/Overdose |
| LA23837-0 | LOINC | Medical-Respiratory Distress-Bronchiolitis |
| LA23838-8 | LOINC | Medical-Respiratory Distress-Croup |
| LA23839-6 | LOINC | Medical-Stimulant Poisoning/Overdose |
| LA24136-6 | LOINC | Cardiac Arrest-Do Not Resuscitate |
| LA24137-4 | LOINC | Cardiac Arrest-Special Resuscitate Orders |
| LA24139-0 | LOINC | General-Community Paramedicine / Mobile Integrated Healthcare |
| LA24140-8 | LOINC | General-Exception Protocol |
| LA24141-6 | LOINC | General-Extended Care Guidelines |
| LA24142-4 | LOINC | General-Interfacility Transfers |
| LA24143-2 | LOINC | General-Law Enforcement - Blood for Legal Purposes |
| LA24144-0 | LOINC | General-Law Enforcement - Assist with Law Enforcement Activity |
| LA24145-7 | LOINC | General-Neglect or Abuse Suspected |
| LA24146-5 | LOINC | General-Refusal of Care |
| LA24147-3 | LOINC | Injury-Mass/Multiple Casualties |
| LA24148-1 | LOINC | Injury-Thoracic |
| LA24149-9 | LOINC | Medical-Adrenal Insufficiency |
| LA24150-7 | LOINC | Medical-Apparent Life Threatening Event (ALTE) |
| LA24151-5 | LOINC | Medical-Tachycardia |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA23827-1 | LOINC | Cardiac Arrest-Determination of Death / Withholding Resuscitative Efforts |

Protocol Age Category

| | |
|-------------|--|
| Value Set | ProtocolAgeCategory - 2.16.840.1.113883.17.3.11.86 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Group of patient ages |

| Code | Code System | Print Name |
|-----------|-------------|----------------|
| LA17571-3 | LOINC | General |
| LA17572-1 | LOINC | Adult only |
| LA17573-9 | LOINC | Pediatric only |

Provider Adverse Event Type

| | |
|-------------|---|
| Value Set | ProviderAdverseEventType - 2.16.840.1.113883.17.3.11.72 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of adverse event affecting a care provider |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA137-2 | LOINC | None |
| LA17059-9 | LOINC | Other (not listed) |
| LA17402-1 | LOINC | Death-cardiac arrest |
| LA17403-9 | LOINC | Death-injury related |
| LA17404-7 | LOINC | Death-other (not listed) |
| LA17405-4 | LOINC | Exposure-airborne respiratory/biological/aerosolized secretions |
| LA17406-2 | LOINC | Exposure-body fluid contact to broken skin |
| LA17407-0 | LOINC | Exposure-body fluid contact with eye |
| LA17408-8 | LOINC | Exposure-body fluid contact with intact skin |
| LA17409-6 | LOINC | Exposure-body fluid contact with mucosal surface |
| LA17410-4 | LOINC | Exposure-needle stick with body fluid injection |
| LA17411-2 | LOINC | Exposure-needle stick without body fluid injection |
| LA17412-0 | LOINC | Exposure-toxin/chemical/hazmat |
| LA17413-8 | LOINC | Injury-lifting/back/musculoskeletal |
| LA17414-6 | LOINC | Injury-other (not listed) |

Provider Response Role

| | |
|-------------|---|
| Value Set | ProviderResponseRole - 2.16.840.1.113883.17.3.11.80 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Role filled by an EMS professional |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------------|
| LA18707-2 | LOINC | Driver/pilot-response |
| LA18708-0 | LOINC | Driver/pilot-transport |
| LA18709-8 | LOINC | Other crew member response role |
| LA18710-6 | LOINC | Other patient caregiver-at scene |
| LA18711-4 | LOINC | Other patient caregiver-transport |
| LA18712-2 | LOINC | Primary patient caregiver-at scene |
| LA18713-0 | LOINC | Primary patient caregiver-transport |

Provider Role

| | |
|-------------|---|
| Value Set | ProviderRole - 2.16.840.1.113883.17.3.11.46 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Class of person providing care to an EMS patient, including the patient |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA15276-1 | LOINC | Student |
| LA18695-9 | LOINC | Critical care paramedic |
| LA18696-7 | LOINC | 2009 advanced emergency medical technician (AEMT) |
| LA18697-5 | LOINC | 2009 emergency medical responder (EMR) |
| LA18698-3 | LOINC | 2009 emergency medical technician (EMT) |
| LA18699-1 | LOINC | 2009 paramedic |
| LA18700-7 | LOINC | First responder |
| LA18701-5 | LOINC | EMT-basic |
| LA18702-3 | LOINC | EMT-intermediate |
| LA18703-1 | LOINC | EMT-paramedic |
| LA18704-9 | LOINC | Other healthcare professional |
| LA18705-6 | LOINC | Other non-healthcare professional |
| LA18706-4 | LOINC | Community paramedicine |
| LA18714-8 | LOINC | Patient/lay person |
| LA4687-5 | LOINC | Physician |

| Code | Code System | Print Name |
|----------------|-------------|--------------------------------|
| LA9297-8 | LOINC | Respiratory therapist |
| LOINC_TBDA_606 | LOINC | Nurse Practitioner |
| LOINC_TBDA_607 | LOINC | Physician Assistant |
| LOINC_TBDA_608 | LOINC | Licensed Practical Nurse (LPN) |
| LOINC_TBDA_609 | LOINC | Registered Nurse |

Race and Ethnicity - CDC

| | |
|-----------|--------------------------|
| Value Set | Race and Ethnicity - CDC |
|-----------|--------------------------|

Race Category

| | |
|------------|---|
| Value Set | RaceCategory - 2.16.840.1.114222.4.11.836 |
| Source URL | https://phinivads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11-B38D-00188B398520 |

| Code | Code System | Print Name |
|--------|--------------------------|---|
| 1002-5 | Race and Ethnicity - CDC | American Indian or Alaska Native |
| 2028-9 | Race and Ethnicity - CDC | Asian |
| 2054-5 | Race and Ethnicity - CDC | Black or African American |
| 2076-8 | Race and Ethnicity - CDC | Native Hawaiian or Other Pacific Islander |
| 2131-1 | Race and Ethnicity - CDC | Other Race |
| 2106-3 | Race and Ethnicity - CDC | White |

Reason Procedure not Performed

| | |
|-------------|---|
| Value Set | Reason Procedure not Performed - 2.16.840.1.113883.17.3.11.95 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Rationale for not completing an otherwise indicated procedure |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA15185-4 | LOINC | Unable to complete |
| LA18925-0 | LOINC | Denied by order |
| LA4216-3 | LOINC | Contraindicated |
| LA4389-8 | LOINC | Refused |

Reason Procedure not Performed Superset

| | |
|-------------|--|
| Value Set | Reason Procedure not Performed Superset - 2.16.840.1.113883.17.3.11.100 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Rationale for not completing an otherwise indicated procedure, including CPR |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA15185-4 | LOINC | Unable to complete |
| LA18925-0 | LOINC | Denied by order |
| LA4216-3 | LOINC | Contraindicated |
| LA4389-8 | LOINC | Refused |
| LA17063-1 | LOINC | Considered futile |
| LA17064-9 | LOINC | DNR orders |
| LA17065-6 | LOINC | Signs of circulation |

Reason Resuscitation Not Attempted

| | |
|-------------|--|
| Value Set | ReasonResuscitationNotAttempted - 2.16.840.1.113883.17.3.11.90 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Rationale for not attempting to resuscitate a patient |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA17063-1 | LOINC | Considered futile |
| LA17064-9 | LOINC | DNR orders |
| LA17065-6 | LOINC | Signs of circulation |

Registry Type

| | |
|-------------|---|
| Value Set | RegistryType - 2.16.840.1.113883.17.3.11.74 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of research repository in which a patient record might be included |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA17057-3 | LOINC | Drowning |
| LA17058-1 | LOINC | Trauma |
| LA17059-9 | LOINC | Other (not listed) |
| LA17398-1 | LOINC | Airway |
| LA17399-9 | LOINC | Spinal cord injury |

| Code | Code System | Print Name |
|-----------|-------------|------------------------|
| LA17400-5 | LOINC | STEMI/acute cardiac |
| LA17401-3 | LOINC | Traumatic brain injury |
| LA7318-4 | LOINC | Burn |
| LA9535-1 | LOINC | Cardiac arrest |
| LA9553-4 | LOINC | Stroke/CVA |

Response Delay Type

| | |
|-------------|--|
| Value Set | ResponseDelayType - 2.16.840.1.113883.17.3.11.51 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of circumstance delaying an EMS response |

| Code | Code System | Print Name |
|----------------|-------------|--|
| LA17059-9 | LOINC | Other (not listed) |
| LA17583-8 | LOINC | Scene safety (not secure for EMS) |
| LA17585-3 | LOINC | Crowd |
| LA17586-1 | LOINC | Directions/unable to locate |
| LA17587-9 | LOINC | Distance |
| LA17588-7 | LOINC | HazMat |
| LA17590-3 | LOINC | Staff delay |
| LA17591-1 | LOINC | Traffic |
| LA17592-9 | LOINC | Vehicle crash involving this unit |
| LA17593-7 | LOINC | Vehicle failure of this unit |
| LA17594-5 | LOINC | Weather |
| LA18081-2 | LOINC | None/no delay |
| LA18270-1 | LOINC | Rendezvous transport unavailable |
| LA18271-9 | LOINC | Route obstruction (e.g., train) |
| LA18301-4 | LOINC | Diversion |
| LOINC_TBDA_614 | LOINC | Mechanical Issue-Unit, Equipment, etc. |
| LOINC_TBDA_615 | LOINC | Flight Planning |

Response Mode Qualifier

| | |
|-------------|---|
| Value Set | ResponseModeQualifier - 2.16.840.1.113883.17.3.11.106 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Additional tactics or approaches used to support emergent response mode |

| Code | Code System | Print Name |
|----------------|-------------|--|
| LA22798-5 | LOINC | Intersection Navigation-Against Normal Light Patterns |
| LA22799-3 | LOINC | Intersection Navigation-With Automated Light Changing Technology |
| LA22800-9 | LOINC | Intersection Navigation-With Normal Light Patterns |
| LA22801-7 | LOINC | Speed-Enhanced per Local Policy |
| LA22802-5 | LOINC | Speed-Normal Traffic |
| LA22803-3 | LOINC | Lights and Sirens |
| LA22804-1 | LOINC | Lights and No Sirens |
| LA22805-8 | LOINC | No Lights or Sirens |
| LA22806-6 | LOINC | Initial No Lights or Sirens, Upgraded to Lights and Sirens |
| LA22807-4 | LOINC | Initial Lights and Sirens, Downgraded to No Lights or Sirens |
| LOINC_TBDA_017 | LOINC | Scheduled |
| LOINC_TBDA_018 | LOINC | Unscheduled |

Resuscitation Discontinue Reason

| | |
|-------------|---|
| Value Set | ResuscitationDiscontinueReason - 2.16.840.1.113883.17.3.11.62 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Rationale for aborting attempt to resuscitate a patient |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17078-9 | LOINC | DNR |
| LA17079-7 | LOINC | Medical control order |
| LA17080-5 | LOINC | Obvious signs of death |
| LA17081-3 | LOINC | Protocol/policy requirements completed |
| LA17082-1 | LOINC | Return of spontaneous circulation (pulse or BP noted) |
| LA18204-0 | LOINC | Physically unable to perform |

Return Of Spontaneous Circulation

| | |
|-------------|---|
| Value Set | ReturnOfSpontaneousCirculation - 2.16.840.1.113883.17.3.11.15 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Timeframe for return of circulation to a patient |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17075-5 | LOINC | Yes, prior to arrival at the ED |
| LA17076-3 | LOINC | Yes, at arrival at the ED |
| LA17077-1 | LOINC | Yes, sustained for 20 consecutive minutes |
| LA32-8 | LOINC | No |

Rx Norm

| | |
|-------------|-------------------------------------|
| Value Set | RxNorm |
| Description | Normalized names for clinical drugs |

Safety Equipment Type

| | |
|-------------|---|
| Value Set | SafetyEquipmentType - 2.16.840.1.113883.17.3.11.7 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of safety equipment |

| Code | Code System | Print Name |
|-----------|-------------|--------------------------------|
| LA137-2 | LOINC | None |
| LA17375-9 | LOINC | Child booster seat |
| LA17376-7 | LOINC | Helmet worn |
| LA17377-5 | LOINC | Infant car seat forward facing |
| LA17378-3 | LOINC | Infant car seat rear facing |
| LA17379-1 | LOINC | Lap belt with shoulder belt |
| LA17380-9 | LOINC | Lap belt without shoulder belt |
| LA17382-5 | LOINC | Protective non-clothing gear |
| LA46-8 | LOINC | Other |
| LA9381-0 | LOINC | Shoulder belt |
| LA9391-9 | LOINC | Eye protection |
| LA9392-7 | LOINC | Protective clothing |
| LA9393-5 | LOINC | Personal flotation device |

Scene Delay Type

| | |
|-------------|---|
| Value Set | SceneDelayType - 2.16.840.1.113883.17.3.11.52 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of circumstance delaying EMS operations on scene |

| Code | Code System | Print Name |
|----------------|-------------|--|
| LA17059-9 | LOINC | Other (not listed) |
| LA17585-3 | LOINC | Crowd |
| LA17586-1 | LOINC | Directions/unable to locate |
| LA17587-9 | LOINC | Distance |
| LA17588-7 | LOINC | HazMat |
| LA17590-3 | LOINC | Staff delay |
| LA17591-1 | LOINC | Traffic |
| LA17592-9 | LOINC | Vehicle crash involving this unit |
| LA17593-7 | LOINC | Vehicle failure of this unit |
| LA17594-5 | LOINC | Weather |
| LA17595-2 | LOINC | Extrication |
| LA17596-0 | LOINC | Safety-crew/staging |
| LA17597-8 | LOINC | Safety-patient |
| LA18081-2 | LOINC | None/no delay |
| LA18272-7 | LOINC | Awaiting air unit |
| LA18273-5 | LOINC | Awaiting ground unit |
| LA18275-0 | LOINC | Patient access |
| LA18276-8 | LOINC | Triage/multiple patients |
| LA7540-3 | LOINC | Language barrier |
| LOINC_TBDA_616 | LOINC | Mechanical Issue-Unit, Equipment, etc. |

Service Type

| | |
|-------------|--|
| Value Set | ServiceType - 2.16.840.1.113883.17.3.11.79 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Category of service requested of an EMS agency |

| Code | Code System | Print Name |
|-----------|-------------|------------------------------------|
| LA17150-6 | LOINC | Standby |
| LA18715-5 | LOINC | 911 response (scene) |
| LA18716-3 | LOINC | Intercept |
| LA18717-1 | LOINC | Interfacility transport |
| LA18718-9 | LOINC | Medical transport |
| LA18719-7 | LOINC | Mutual aid |
| LA18720-5 | LOINC | Public assistance/other not listed |

Stroke Scale

| | |
|-------------|--|
| Value Set | StrokeScale - 2.16.840.1.113883.17.3.11.88 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Type of instrument used to evaluate for stroke |

| Code | Code System | Print Name |
|----------------|-------------|---|
| LA17110-0 | LOINC | Cincinnati |
| LA17111-8 | LOINC | Los Angeles |
| LA17112-6 | LOINC | Miami emergency neurologic deficit (MEND) |
| LA17113-4 | LOINC | NIH |
| LA18300-6 | LOINC | Other stroke scale type |
| LA3774-2 | LOINC | Massachusetts |
| LOINC_TBDA_617 | LOINC | F.A.S.T. Exam |

Stroke Scale Interpretation

| | |
|-------------|--|
| Value Set | Stroke Scale Interpretation - 2.16.840.1.113883.17.3.11.93 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding based on a stroke scale instrument |

| Code | Code System | Print Name |
|-----------|-------------|----------------|
| LA17109-2 | LOINC | Non-conclusive |
| LA6576-8 | LOINC | Positive |
| LA6577-6 | LOINC | Negative |

Transport Delay Type

| | |
|-------------|---|
| Value Set | TransportDelayType - 2.16.840.1.113883.17.3.11.53 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of circumstance delaying EMS transport |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| LA17059-9 | LOINC | Other (not listed) |
| LA17585-3 | LOINC | Crowd |
| LA17586-1 | LOINC | Directions/unable to locate |
| LA17587-9 | LOINC | Distance |
| LA17588-7 | LOINC | HazMat |

| Code | Code System | Print Name |
|----------------|-------------|---|
| LA17589-5 | LOINC | Safety |
| LA17590-3 | LOINC | Staff delay |
| LA17591-1 | LOINC | Traffic |
| LA17592-9 | LOINC | Vehicle crash involving this unit |
| LA17593-7 | LOINC | Vehicle failure of this unit |
| LA17594-5 | LOINC | Weather |
| LA18081-2 | LOINC | None/no delay |
| LA18270-1 | LOINC | Rendezvous transport unavailable |
| LA18271-9 | LOINC | Route obstruction (e.g., train) |
| LA18301-4 | LOINC | Diversion |
| LOINC_TBDA_618 | LOINC | Patient Condition Change (e.g., Unit Stopped) |

Transport Method

| | |
|-------------|--|
| Value Set | TransportMethod - 2.16.840.1.113883.17.3.11.65 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Physical mode of patient transport |

| Code | Code System | Print Name |
|-----------|-------------|----------------------------------|
| LA17168-8 | LOINC | Ground-ambulance |
| LA17169-6 | LOINC | Air medical-fixed wing |
| LA17170-4 | LOINC | Air medical-rotor craft |
| LA17171-2 | LOINC | Ground-ATV or rescue vehicle |
| LA17172-0 | LOINC | Ground-bariatric |
| LA17173-8 | LOINC | Ground-mass casualty bus/vehicle |
| LA17174-6 | LOINC | Ground-wheelchair van |
| LA17175-3 | LOINC | Ground-other not listed |
| LA17176-1 | LOINC | Water-boat |

Transport Mode Qualifier

| | |
|-------------|--|
| Value Set | TransportModeQualifier - 2.16.840.1.113883.17.3.11.102 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Techniques for managing transport speed |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA22798-5 | LOINC | Intersection Navigation-Against Normal Light Patterns |
| LA22799-3 | LOINC | Intersection Navigation-With Automated Light Changing Technology |
| LA22800-9 | LOINC | Intersection Navigation-With Normal Light Patterns |
| LA22801-7 | LOINC | Speed-Enhanced per Local Policy |
| LA22802-5 | LOINC | Speed-Normal Traffic |
| LA22803-3 | LOINC | Lights and Sirens |
| LA22804-1 | LOINC | Lights and No Sirens |
| LA22805-8 | LOINC | No Lights or Sirens |
| LA22807-4 | LOINC | Initial Lights and Sirens, Downgraded to No Lights or Sirens |
| LA22806-6 | LOINC | Initial No Lights or Sirens, Upgraded to Lights and Sirens |

Transportation Mode

| | |
|-------------|---|
| Value Set | TransportationMode - 2.16.840.1.113883.17.3.11.66 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Urgency of transport |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------------|
| LA17177-9 | LOINC | Emergent (immediate response) |
| LA17178-7 | LOINC | Emergent downgraded to non-emergent |
| LA17179-5 | LOINC | Non-emergent upgraded to emergent |
| LA17180-3 | LOINC | Non-emergent |

Trauma Center Criteria

| | |
|-------------|--|
| Value Set | TraumaCenterCriteria - 2.16.840.1.113883.17.3.11.3 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Patient findings used to determine appropriate destination |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17337-9 | LOINC | Glasgow Coma Score less than or equal to 13 |
| LA17338-7 | LOINC | Respiratory rate < 10 or >29 or (<20 in infant < one year) |
| LA17339-5 | LOINC | Systolic blood pressure less than 90 |
| LA17340-3 | LOINC | Amputation proximal to wrist and ankle |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17341-1 | LOINC | Crushed, degloved, or mangled extremity |
| LA17342-9 | LOINC | Flail chest |
| LA17343-7 | LOINC | Open or depressed skull fracture |
| LA17344-5 | LOINC | Paralysis |
| LA17345-2 | LOINC | Pelvic fracture(s) |
| LA17346-0 | LOINC | Penetrating injury to head, neck, torso, and extremities proximal to elbow and knee |
| LA17347-8 | LOINC | Two or more proximal long-bone fractures |

Turn Around Delay Type

| | |
|-------------|---|
| Value Set | TurnAroundDelayType - 2.16.840.1.113883.17.3.11.54 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of circumstance delaying EMS readiness after an incident |

| Code | Code System | Print Name |
|----------------|-------------|---|
| LA17059-9 | LOINC | Other (not listed) |
| LA17587-9 | LOINC | Distance |
| LA17590-3 | LOINC | Staff delay |
| LA17592-9 | LOINC | Vehicle crash involving this unit |
| LA17593-7 | LOINC | Vehicle failure of this unit |
| LA17594-5 | LOINC | Weather |
| LA17598-6 | LOINC | Clean-up |
| LA17599-4 | LOINC | Decontamination |
| LA17600-0 | LOINC | Documentation |
| LA17601-8 | LOINC | ED overcrowding/transfer of care |
| LA17602-6 | LOINC | Equipment/supply replenishment |
| LA18081-2 | LOINC | None/no delay |
| LA18270-1 | LOINC | Rendezvous transport unavailable |
| LA18271-9 | LOINC | Route obstruction (e.g., train) |
| LA7497-6 | LOINC | Equipment failure |
| LOINC_TBDA_619 | LOINC | Traffic |
| LOINC_TBDA_620 | LOINC | EMS Crew Accompanies Patient for Facility Procedure |

Unit Level Of Care

| | |
|-------------|---|
| Value Set | UnitLevelOfCare - 2.16.840.1.113883.17.3.11.105 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Levels of care a unit may be able to provide |

| Code | Code System | Print Name |
|-----------|-------------|----------------------------|
| LA22851-2 | LOINC | BLS-First Responder/EMR |
| LA22852-0 | LOINC | BLS-Basic /EMT |
| LA22854-6 | LOINC | BLS-Intermediate |
| LA22862-9 | LOINC | BLS-Community Paramedicine |
| LA22855-3 | LOINC | ALS-AEMT |
| LA22856-1 | LOINC | ALS-Intermediate |
| LA22857-9 | LOINC | ALS-Paramedic |
| LA22858-7 | LOINC | ALS-Community Paramedicine |
| LA22859-5 | LOINC | ALS-Nurse |
| LA22860-3 | LOINC | ALS-Physician |
| LA22861-1 | LOINC | Specialty Critical Care |

Unit Response Role

| | |
|-------------|---|
| Value Set | UnitResponseRole - 2.16.840.1.113883.17.3.11.82 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Role unit plays in response to an incident |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17575-4 | LOINC | Ground transport |
| LA17576-2 | LOINC | Non-Transport Assistance |
| LA17577-0 | LOINC | Non-Transport Rescue |
| LA17578-8 | LOINC | Non-Transport Administrative (e.g., Supervisor) |
| LA23840-4 | LOINC | Air Transport-Helicopter |
| LA23841-2 | LOINC | Air Transport-Fixed Wing |

Vehicle Impact Area

| | |
|-------------|---|
| Value Set | VehicleImpactArea - 2.16.840.1.113883.17.3.11.5 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

| | |
|------------|--|
| Definition | Direction from which a vehicle is struck, expressed in terms of an analog clock face |
|------------|--|

| Code | Code System | Print Name |
|-----------|-------------|------------|
| LA10137-0 | LOINC | 5 |
| LA10138-8 | LOINC | 6 |
| LA10139-6 | LOINC | 7 |
| LA10140-4 | LOINC | 8 |
| LA10141-2 | LOINC | 9 |
| LA13942-0 | LOINC | 10 |
| LA14557-5 | LOINC | 11 |
| LA14558-3 | LOINC | 12 |
| LA6112-2 | LOINC | 1 |
| LA6113-0 | LOINC | 2 |
| LA6114-8 | LOINC | 3 |
| LA6115-5 | LOINC | 4 |

Vehicle Passenger Location

| | |
|-------------|--|
| Value Set | VehiclePassengerLocation - 2.16.840.1.113883.17.3.11.6 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Location of a passenger within a vehicle |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17361-9 | LOINC | Front seat-left side (or motorcycle driver) |
| LA17362-7 | LOINC | Front seat-right side |
| LA17363-5 | LOINC | Front seat-middle |
| LA17364-3 | LOINC | Second seat-left side (or motorcycle passenger) |
| LA17365-0 | LOINC | Second seat-middle |
| LA17366-8 | LOINC | Second seat-right side |
| LA17367-6 | LOINC | Third row-left side (or motorcycle passenger) |
| LA17368-4 | LOINC | Third row-right side |
| LA17369-2 | LOINC | Third row-middle |
| LA17370-0 | LOINC | Sleeper section of cab (truck) |
| LA17371-8 | LOINC | Passenger in other enclosed passenger or cargo area (non-trailing unit such as a bus, etc.) |
| LA17372-6 | LOINC | Passenger in unenclosed passenger or cargo area (non-trailing unit such as a pickup, etc.) |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA17373-4 | LOINC | Trailing unit |
| LA17374-2 | LOINC | Riding on vehicle exterior (non-trailing unit) |
| LA4489-6 | LOINC | Unknown |

Chapter

6

Appendices

Topics:

- *Object Identifiers for US State Departments of Motor Vehicles*
- *Nulls and Negative Action Values*
- *UCUM Unit Mapping*
- *NEMSIS Routes Mapped to FDA Routes of Administration*

Object Identifiers for US State Departments of Motor Vehicles

These OIDs have been assigned to US state DMVs by HL7 for the purpose of providing namespaces for driver's license numbers.

| OID | State Administrator |
|--------------------------|---|
| 2.16.840.1.113883.4.3.1 | Alabama Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.2 | Alaska Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.4 | Arizona Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.5 | Arkansas Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.6 | California Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.8 | Colorado Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.9 | Connecticut Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.10 | Delaware Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.11 | District of Columbia Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.12 | Florida Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.13 | Georgia Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.15 | Hawaii Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.16 | Idaho Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.17 | Illinois Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.18 | Indiana Bureau for Motor Vehicles (BMV) |
| 2.16.840.1.113883.4.3.19 | Iowa Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.20 | Kansas Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.21 | Kentucky Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.22 | Louisiana Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.23 | Maine Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.24 | Maryland Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.25 | Massachusetts Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.26 | Michigan Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.27 | Minnesota Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.28 | Mississippi Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.29 | Missouri Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.30 | Montana Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.31 | Nebraska Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.32 | Nevada Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.33 | New Hampshire Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.34 | New Jersey Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.35 | New Mexico Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.36 | New York Motor Vehicle Bureau |

| | |
|--------------------------|-------------------------------------|
| 2.16.840.1.113883.4.3.37 | North Carolina Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.38 | North Dakota Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.39 | Ohio Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.40 | Oklahoma Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.41 | Oregon Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.42 | Pennsylvania Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.44 | Rhode Island Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.45 | South Carolina Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.46 | South Dakota Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.47 | Tennessee Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.48 | Texas Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.49 | Utah Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.50 | Vermont Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.51 | Virginia Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.53 | Washington Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.54 | West Virginia Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.55 | Wisconsin Motor Vehicle Bureau |
| 2.16.840.1.113883.4.3.56 | Wyoming Motor Vehicle Bureau |

Nulls and Negative Action Values

This table maps NEMESIS null and negative action values to the appropriate values and structures in the HL7 CDA specification.

| NEMESIS Negative Action Values | Type | NullFlavor | Case | Solution |
|--------------------------------|------|------------|---------------------------------|--|
| 1 Unable to Complete | null | NI | observation | Observation.value = null (NI); obs.text = "unable to complete" |
| 2 Unable to Complete | null | NI | medication | SBADM.value = null (NI); SBADM.text = "unable to complete" |
| 3 Unable to Complete | null | NI | procedure | PROC.value = null (NI); PROC.text = "unable to complete" |
| 4 Refused | null | ASKU (NT) | observation (including history) | Observation.value = null (ASKU) |
| 7 Refused | neg | | medication given | negate specific medication; put "refused" value in MedicationNotAdministeredReason observation |
| 9 Refused | neg | | procedure performed | negate specific procedure; put "refused" value in ReasonProcedureNotAttempted observation |
| 10 Exam finding not present | null | NAV | observation | Observation.value = null (NAV) |

| | | | | |
|--------------------|--|---------|-----------------------------------|---|
| 11 | No known drug allergies | none | observation: negation value | Use Boolean observation ExistenceOfDrugAllergy |
| 12 | None reported | none | observation: alcohol | Use Boolean observation ExistenceOfDrugUseIndication |
| 16 | No anticoagulants or bleeding disorder | none | medication | Use Boolean observation PatientOnAnticoagulants; negate HistoryOfCondition observation for D66, D67, D68 |
| 18 | Contraindication noted | neg | medication, procedure | negate specific procedure or medication; use related reason observation to record reason |
| 19 | Denied by order | neg | medication, procedure | negate specific procedure or medication; use related reason observation to record reason |
| 20 | Medication allergy | neg | medication | negate specific procedure or medication; use related reason observation to record reason |
| 21 | Medication already taken | neg | medication | negate specific procedure or medication; use related reason observation to record reason |
| Null Values | | | | |
| 22 | Not Applicable | null NA | | null: NA |
| 23 | Not Recorded | null NI | | null: NI; add detail to obs.text or proc.text |
| 24 | Not Reported | null NI | | null: NI; add detail to obs.text or proc.text |

UCUM Unit Mapping

This appendix provides UCUM codes for units provided by NEMSIS specifications. Note that "liters" is always uppercase "L": the character "1" signifies the numeral "one."

| NEMSIS Question | NEMSIS Code | Description | PQ QTY | PQ Units (UCUM) | Supporting values |
|-----------------|-------------|------------------------------------|--------|-----------------|--|
| emedications.06 | 3706001 | Grams | Yes | g | |
| emedications.06 | 3706003 | Inches | Yes | [in_i] | |
| emedications.06 | 3706005 | International Units | Yes | [iU] | |
| emedications.06 | 3706007 | Keep Vein Open (To Keep Open) | No | | substanceAdministration.value.nullFlavor = QS (sufficient quantity); codeSystem = 2.16.840.1.113883.5.1008 |
| emedications.06 | 3706009 | Liters | Yes | L | |
| emedications.06 | 3706011 | Liters Per Minute | Yes | L/min | |
| emedications.06 | 3706013 | MDI Puffs | Yes | 1 | substanceAdministration.administrationUnitCode = PUFF; codeSystem = 2.16.840.1.113883.1.11.14570 |
| emedications.06 | 3706015 | Micrograms | Yes | ug | |
| emedications.06 | 3706017 | Micrograms per Kilogram per Minute | Yes | ug/kg/min | |

| | | | | | |
|-----------------|---------|--|-----|-----------|--|
| emedications.06 | 3706019 | Milliequivalents | Yes | meq | |
| emedications.06 | 3706021 | Milligrams | Yes | mg | |
| emedications.06 | 3706023 | Milligrams Per Kilogram Per Minute | Yes | mg/kg/min | |
| emedications.06 | 3706025 | Milliliters | Yes | mL | |
| emedications.06 | 3706027 | Milliliters Per Hour | Yes | mL/h | |
| emedications.06 | 3706029 | Other | Yes | 1 | substanceAdministration.value.units = OTH; codeSystem = 2.16.840.1.113883.5.1008 |
| ehistory.14 | 3114001 | cm | Yes | cm | |
| ehistory.14 | 3114003 | gms | Yes | g | |
| ehistory.14 | 3114005 | gtts (drops) | Yes | 1 | substanceAdministration.administrationUnitCode = DROP; codeSystem = 2.16.840.1.113883.1.11.14420 |
| ehistory.14 | 3114007 | inches | Yes | [in_i] | |
| ehistory.14 | 3114009 | iu | Yes | [iU] | |
| ehistory.14 | 3114011 | kvo (keep vein open) | No | | substanceAdministration.value.nullFlavor = QS (sufficient quantity); codeSystem = 2.16.840.1.113883.5.1008 |
| ehistory.14 | 3114013 | l/min (fluid administration) | Yes | L/min | |
| ehistory.14 | 3114015 | liters | Yes | L | |
| ehistory.14 | 3114017 | LPM (gas administration) | Yes | L/min | |
| ehistory.14 | 3114019 | mcg | Yes | ug | |
| ehistory.14 | 3114021 | mcg/kg/min | Yes | ug/kg/min | |
| ehistory.14 | 3114023 | mcg/min | Yes | ug/min | |
| ehistory.14 | 3114025 | meq | Yes | meq | |
| ehistory.14 | 3114027 | metered dose | Yes | 1 | substanceAdministration.value.units = OTH; codeSystem = 2.16.840.1.113883.5.1008 |
| ehistory.14 | 3114029 | mg | Yes | mg | |
| ehistory.14 | 3114031 | mg/kg | Yes | mg/kg | |
| ehistory.14 | 3114033 | mg/kg/min | Yes | mg/kg/min | |
| ehistory.14 | 3114035 | mg/min | Yes | mg/min | |
| ehistory.14 | 3114037 | ml | Yes | mL | |
| ehistory.14 | 3114039 | ml/hr | Yes | mL/h | |
| ehistory.14 | 3114041 | other (Not Listed) | Yes | 1 | substanceAdministration.value.units = OTH; codeSystem = 2.16.840.1.113883.5.1008 |
| ehistory.14 | 3114043 | puffs | Yes | 1 | substanceAdministration.administrationUnitCode = PUFF; codeSystem =2.16.840.1.113883.1.11.14570 |

| | | | | |
|---------------|---------|----------|-----|-----|
| ehistory.14 | 3114045 | units/hr | Yes | 1/h |
| epatient.16 | 2516001 | Days | Yes | d |
| epatient.16 | 2516003 | Hours | Yes | h |
| epatient.16 | 2516005 | Minutes | Yes | min |
| epatient.16 | 2516007 | Months | Yes | mo |
| epatient.16 | 2516009 | Years | Yes | a |
| esituation.06 | 2806001 | Seconds | Yes | s |
| esituation.06 | 2806003 | Minutes | Yes | min |
| esituation.06 | 2806005 | Hours | Yes | h |
| esituation.06 | 2806007 | Days | Yes | d |
| esituation.06 | 2806009 | Weeks | Yes | wk |
| esituation.06 | 2806011 | Months | Yes | mo |
| esituation.06 | 2806013 | Years | Yes | a |

NEMESIS Routes Mapped to FDA Routes of Administration

This appendix maps NEMESIS routes of administration to FDA routes. It also specifies how information implicit in NEMESIS values but not specific to routes may be modeled in the CDA structure.

| NEMESIS value | Standard System | Standard Code | Standard Text |
|--------------------------|--|---------------|-----------------------------|
| Endotracheal tube | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38208 | ENDOTRACHEAL |
| Gastrostomy/Feeding Tube | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38246 | INTRAGASTRIC |
| Gastrostomy tube | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38246 | INTRAGASTRIC |
| Inhalation | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) |
| Intraarterial | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38222 | INTRA-ARTERIAL |
| Intranasal | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38284 | NASAL |
| Intramuscular | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C28161 | INTRAMUSCULAR |
| Intraocular | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38255 | INTRAOCULAR |

| NEMESIS value | Standard System | Standard Code | Standard Text | |
|-------------------|--|---------------|--------------------------|---|
| Intraosseous | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38253 | INTRAMEDULLARY | |
| Intravenous | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38276 | INTRAVENOUS | |
| Nasal Cannula | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufacture product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "39849001" @codeSystem = "2.16.840.1.113883.6.5" @displayName="nasal oxygen cannula" |
| Nasal | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38284 | NASAL | |
| Nasal prongs | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) | Alternate SCT format for above explicitly modeled concept (same content): 405815000 procedure device (attribute) = 39849001 nasal oxygen cannula (Type:= physical object) |
| Nasogastric | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38285 | NASOGASTRIC | |
| Nasotracheal Tube | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38208 | ENDOTRACHEAL | approachSiteCode @value = "15562006" @codeSystem = "2.16.840.1.113883.6.5" @displayName="structure of respiratory region of nose" |

| NEMSIS value | Standard System | Standard Code | Standard Text | |
|---------------------|--|---------------|--------------------------|---|
| Non-Rebreather Mask | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode=""DEV"" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode=""MANU"" (manufacture product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = ""427591007"" @codeSystem = ""2.16.840.1.113883.6.5"" @displayName=""nonrebreather oxygen mask"" |
| Ophthalmic | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38287 | OPHTHALMIC | |
| Oral | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38288 | ORAL | |
| Other/miscellaneous | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38290 | OTHER | |
| Otic | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38192 | AURICULAR (OTIC) | |
| Re-breather mask | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode=""DEV"" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode=""MANU"" (manufacture product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = ""425926003"" @codeSystem = ""2.16.840.1.113883.6.5"" @displayName=""partial rebreather oxygen mask"" |
| Rectal | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38295 | RECTAL | |

| NEMSIS value | Standard System | Standard Code | Standard Text | |
|--------------|--|---------------|--------------------------|--|
| Subcutaneous | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38299 | SUBCUTANEOUS | |
| Sublingual | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38300 | SUBLINGUAL | |
| Topical | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38304 | TOPICAL | |
| Tracheostomy | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38308 | TRANSTRACHEAL | |
| Transdermal | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38305 | TRANSDERMAL | |
| Urethral | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38271 | URETHRAL | |
| Ventimask | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode=""DEV"" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode=""MANU"" (manufacture product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = ""428285009"" @codeSystem = ""2.16.840.1.113883.6.5"" @displayName=""Venturi mask"" |
| Wound | FDA Route of Administration: 2.16.840.1.113883.3.26.1.1.1 | C38250 | INTRALESIONAL | |

SAMPLE

In this example, the agency is represented with the root OID "2.16.840.1.113883.19.1." This OID represents a node (".1") under the HL7 Example domain ("2.16.840.1.113883.19"). This hypothetical organization has assigned identifiers under six nodes: 1. documents 2. patients 3. events 4. document artifacts (sections, organizers, statements) 5. facilities 6. devices (including the software that generated the report) These OIDs are used in the Instance Identifier data type in the "root" attribute. Providers are identified using a National Provider Identifier (root = "2.16.840.1.113883.4.6"), but the NPI has no "example" namespace for fictitious providers. Actual NPI identifiers are numbers; we have used strings that do not fit the NPI pattern to avoid inadvertently identifying an actual provider. This example report does not demonstrate every statement specified in the guide, but it does cover every pattern required to construct a valid document.

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="CDA.xsl"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:hl7-org:v3" xmlns:sdtc="urn:hl7-org:sdtc" xsi:schemaLocation="urn:hl7-org:v3 CDA.xsd" classCode="DOCCLIN" moodCode="EVN">
  <!-- This example is based on ALS test case #1 from the Minnesota EMS Regulatory Board, available at http://www.emsrb.state.mn.us. Example and guide developed by the National EMS Information System and Ockham Information Services LLC under the auspices of Health Level 7, with support from the US National Highway Traffic Safety Administration, the Centers for Disease Control, and the Health Resources and Services Administration, as well as dozens of other government agencies, universities, and professional organizations. Example prepared for 2014 publication of normative implementation guide. -->
  <realmCode code="US"/>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root="2.16.840.1.113883.17.3.10.2"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <id root="2.16.840.1.113883.19.1" extension="2086823449"/>
  <!-- The EMS PCR specification template identifier -->
  <!-- We inherit constraints from the Consolidated General Header -->
  <!-- See notes for OID descriptions. 2.16.840.1.113883.19 is the example domain. -->
  <code code="67796-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS Patient Care Report"/>
  <title>EMS Patient Care Report</title>
  <effectiveTime value="201201011650+0600"/>
  <confidentialityCode codeSystem="2.16.840.1.113883.5.25" codeSystemName="ConfidentialityCode" code="N"/>
  <versionNumber value="1"/>
  <recordTarget>
    <patientRole>
      <id root="2.16.840.1.113883.19.2" extension="1968859720"/>
      <addr>
        <streetAddressLine>20190 Holyoak Avenue</streetAddressLine>
        <city>Two Harbors</city>
        <state>MN</state>
        <country>US</country>
      </addr>
      <telecom value="tel:(218) 555-1212"/>
      <patient>
        <name>
          <given>Paul</given>
          <family>Bearer</family>
        </name>
        <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGenderCode"/>
        <birthTime value="19830115"/>
        <raceCode code="2106-3" displayName="White" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC"/>
        <ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC"/>
      </patient>
    </patientRole>
  </recordTarget>
  <author>
    <time value="201201011650+0600"/>
    <assignedAuthor>
      <id root="2.16.840.1.113883.4.6" extension="hijklm"/>
      <addr>
        <streetAddressLine>1000 Provider Lane</streetAddressLine>
        <city>Duluth</city>
        <state>MN</state>
        <postalCode>55802</postalCode>
        <country>US</country>
      </addr>
      <telecom value="tel:(218) 555-1212"/>
      <assignedPerson>
        <name>
          <given>Paul</given>
          <family>Paramedic</family>
        </name>
      </assignedPerson>
    </assignedAuthor>
  </author>
  <author>
    <time value="201201011650+0600"/>
    <assignedAuthor>
      <id root="2.16.840.1.113883.19.6" extension="1401065661"/>
      <addr nullFlavor="NI"/>
      <telecom nullFlavor="NI"/>
      <assignedAuthoringDevice>
        <manufacturerModelName>ACME EMT Device</manufacturerModelName>
        <softwareName>ACME EMT System 3.1</softwareName>
      </assignedAuthoringDevice>
    </assignedAuthor>
  </author>
  <custodian>
    <assignedCustodian>
      <representedCustodianOrganization>
        <id root="2.16.840.1.113883.19" extension="765588601"/>
        <name>Acme EMT Services</name>
        <telecom value="tel:(218) 555-1212"/>
      </representedCustodianOrganization>
      <addr>
        <streetAddressLine>1000 EMT Lane</streetAddressLine>
        <city>Duluth</city>
        <state>MN</state>
        <postalCode>55803</postalCode>
        <country>US</country>
      </addr>
    </assignedCustodian>
  </custodian>
  <participant typeCode="DST">
```

```

<associatedEntity classCode="SDLOC">
  <code code="LA11504-0" displayName="Hospital emergency department" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <addr>
    <streetAddressLine>2000 Facility Road</streetAddressLine>
    <city>Duluth</city>
    <state>MN</state>
    <postalCode>55804</postalCode>
    <country>US</country>
  </addr>
  <telecom value="tel: (218) 555-1212"/>
  <scopingOrganization>
    <name>General Hospital</name>
  </scopingOrganization>
</associatedEntity>
</participant>
<documentationOf>
  <serviceEvent>
    <id root="2.16.840.1.113883.19.3" extension="1557142669"/>
    <code code="LA18715-5" displayName="911 response (scene)" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <effectiveTime value="201201011545+0600"/>
    <performer typeCode="PRF">
      <functionCode code="LA18712-2" displayName="Primary patient caregiver-at scene" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
      <assignedEntity>
        <id root="2.16.840.1.113883.4.6" extension="abcdefg"/>
        <code code="LA18703-1" displayName="EMT-paramedic" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <addr>
          <streetAddressLine>1000 EMT Lane</streetAddressLine>
          <city>Duluth</city>
          <state>MN</state>
          <postalCode>55803</postalCode>
          <country>US</country>
        </addr>
        <telecom value="tel: (218) 555-1212"/>
        <assignedPerson>
          <name>
            <given>Renee</given>
            <family>Responder</family>
          </name>
        </assignedPerson>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
<componentOf typeCode="COMP">
  <encapsulatingEncounter>
    <id root="2.16.840.1.113883.19.3" extension="2086823789"/>
    <effectiveTime value="201201011545+0600"/>
    <location>
      <healthCareFacility>
        <id root="2.16.840.1.113883.19.5" extension="2074056439"/>
        <code code="LA17575-4" displayName="Ground transport" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <location classCode="PLC">
          <name>Highway 50 and Ipava Ave</name>
        </location>
        <addr>
          <streetAddressLine>Highway 50 and Ipava Ave</streetAddressLine>
          <city>Two Harbors</city>
          <state>MN</state>
          <postalCode>55616</postalCode>
          <country>US</country>
        </addr>
      </healthCareFacility>
    </location>
  </encapsulatingEncounter>
</componentOf>
<component>
  <structuredBody>
    <component>
      <section>
        <templateId root="2.16.840.1.113883.17.3.10.1.5"/>
        <code code="67659-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS Billing Section"/>
        <title>EMS Billing Section</title>
        <text>
          <table border="1" width="100%">
            <thead>
              <tr><th>property</th><th>value</th><th>Notes</th></tr>
            </thead>
            <tbody>
              <tr>
                <td>Billing Condition</td>
                <td>Puncture wound with foreign body of left front wall of thorax with penetration into thoracic cavity</td>
                <td></td>
              </tr>
              <tr>
                <td>EMS level of service</td>
                <td>ALS, level 1</td>
                <td></td>
              </tr>
            </tbody>
          </table>
        </text>
        <entry>
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.17.3.10.1.91"/>
            <id root="2.16.840.1.113883.19.4" extension="477978662"/>
            <code code="67556-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Billing condition"/>
            <value xsi:type="CD" code="S21.342" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" displayName="Puncture wound with foreign body of left front wall of thorax with penetration into thoracic cavity"/>
          </observation>
        </entry>
        <entry>
          <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.17.3.10.1.92"/>
            <id root="2.16.840.1.113883.19.4" extension="111537463"/>
            <code code="69464-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS level of service"/>
            <value xsi:type="CD" code="LA18102-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="ALS, level 1"/>
          </observation>
        </entry>
      </section>
    </component>
  </structuredBody>
</component>
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.15"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.1"/>
  <templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>
  <code code="10160-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="History of medication use"/>
  <title>EMS Current Medications Section</title>
  <text>
    <table border="1" width="100%">
      <thead>
        <tr><th>property</th><th>value</th><th>Notes</th></tr>
      </thead>
      <tbody>
        <tr>
          <td>Currently on medication</td>
          <td>No information</td>
          <td></td>
        </tr>
      </tbody>
    </table>
  </text>

```

```
|  |  |
| --- | --- |
| Patient on anticoagulants | No information |

```

entry

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.75"/>
  <id root="2.16.840.1.113883.19.4" extension="208711679"/>
  <code code="67791-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Currently on medication"/>
  <value xsi:type="CD" nullFlavor="NI"/>
</observation>
</entry>
<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.76"/>
    <id root="2.16.840.1.113883.19.4" extension="779578355"/>
    <code code="69749-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient on anticoagulants"/>
    <value xsi:type="CD" nullFlavor="NI"/>
  </observation>
</entry>
</section>
</component>
<component>
  <section>
    <templateId root="2.16.840.1.113883.17.3.10.1.13"/>
    <id root="2.16.840.1.113883.19.4" extension="1379194292"/>
    <code code="48765-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Allergies and Adverse Reactions Section"/>
    <title>EMS Allergies and Adverse Reactions</title>
    <text>
      <table border="1" width="100%">
        <thead>
          <tr><th>property</th><th>value</th><th>Notes</th></tr>
        </thead>
        <tbody>
          <tr>
            <td>Existence of drug allergy</td>
            <td>No information</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>
    <entry>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.17.3.10.1.102"/>
        <id root="2.16.840.1.113883.19.4" extension="1219703426"/>
        <code code="67794-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Existence of drug allergy"/>
        <value xsi:type="CD" nullFlavor="NI"/>
      </observation>
    </entry>
  </section>
</component>
<component>
  <section>
    <templateId root="2.16.840.1.113883.17.3.10.1.19"/>
    <id root="2.16.840.1.113883.19.4" extension="235078508"/>
    <code code="67842-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS Past Medical History Section"/>
    <title>EMS Past Medical History</title>
    <text>No history known</text>
  </section>
</component>
<component>
  <section>
    <templateId root="2.16.840.1.113883.17.3.10.1.22"/>
    <id root="2.16.840.1.113883.19.4" extension="1433550562"/>
    <code code="67843-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS Social History Section"/>
    <title>EMS Social History</title>
    <text>
      <table border="1" width="100%">
        <thead>
          <tr><th>property</th><th>value</th><th>Notes</th></tr>
        </thead>
        <tbody>
          <tr>
            <td>Indications of drug or alcohol use by the patient</td>
            <td>true</td>
            <td></td>
          </tr>
          <tr>
            <td>Alcohol - drug use</td>
            <td>Smell of alcohol on breath</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>
    <entry>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.17.3.10.1.70"/>
        <id root="2.16.840.1.113883.19.4" extension="1010126511"/>
        <code code="69757-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Indications of drug or alcohol use by the patient"/>
        <value xsi:type="BL" value="true"/>
      </observation>
    </entry>
    <entry>
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.17.3.10.1.71"/>
        <id root="2.16.840.1.113883.19.4" extension="1289611790"/>
        <code code="67669-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Alcohol - drug use"/>
        <value xsi:type="CD" code="LA17328-8" displayName="Alcohol - drug use" codeSystem="2.16.840.1.113883.6.1"/>
      </observation>
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</component>
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    <templateId root="2.16.840.1.113883.10.20.2.10"/>
    <id root="2.16.840.1.113883.19.4" extension="1059740514"/>
    <code code="29545-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="PHYSICAL EXAMINATION"/>
    <title>EMS Physical Assessment Section</title>
    <text>
      <table border="1" width="100%">
        <thead>
          <tr><th>property</th><th>value</th><th>Notes</th></tr>
        </thead>
        <tbody>
          <tr>
            <td>HeadAssessmentFinding</td>
            <td>Normal</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>

```



```
|  |  |
| --- | --- |
| <td>NeckAssessmentFinding</td> | <td>Normal</td> |
| </tr> |  |
| <td>ChestAndLungsAssessmentFinding</td> | <td>Bleeding - controlled</td> |
| </tr> |  |
| <td></td> | <td>ChestAndLungsAssessmentFinding</td> |
| <td>Gunshot wound - entry</td> |  |
| </tr> |  |
| <td>ChestAndLungsAssessmentFinding</td> | <td>Breath sounds-decreased-left</td> |
| <td></td> |  |
| </tr> |  |
| <td>Abdomen assessment</td> | <td>Normal</td> |
| <td>targetSiteCode: Generalized</td> |  |
| </tr> |  |
| <td>Abdomen assessment</td> | <td>Other</td> |
| <td>GI normal</td> |  |
| </tr> |  |
| <td>Pelvic and genitourinary assessment</td> | <td>Normal</td> |
| <td></td> |  |
| </tr> |  |
| <td>Extremities assessment</td> | <td>Normal</td> |
| <td></td> |  |
| </tr> |  |
| <td>Patient Pregnancy</td> | <td>Not Applicable</td> |
| <td></td> |  |
| </tr> |  |
| <td>Last Oral Intake</td> | <td>No Information</td> |
| <td></td> |  |
| </tr> |  |
| <td>Patient Age</td> | <td>28 years</td> |
| <td></td> |  |
| </tr> |  |
| <td>Contraindications to thrombolytic use</td> | <td>No Information</td> |
| <td></td> |  |
| </tr> |  |
| <td>Barrier to care</td> | <td>Unconscious</td> |
| <td></td> |  |
| </tr> |  |
| </tbody> |  |
| </table> |  |
| </text> |  |
| <entry> |  |
| <organizer classCode="CLUSTER" moodCode="EVN"> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.78"/> |  |
| <id root="2.16.840.1.113883.19.4" extension="1471224321"/> |  |
| <statusCode code="completed"/> |  |
| <component> |  |
| <observation classCode="OBS" moodCode="EVN"> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.113"/> |  |
| <code code="67525-6" displayName="HeadAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/> |  |
| <value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/> |  |
| </observation> |  |
| </component> |  |
| <component> |  |
| <observation classCode="OBS" moodCode="EVN"> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.114"/> |  |
| <code code="67527-2" displayName="NeckAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/> |  |
| <value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/> |  |
| </observation> |  |
| </component> |  |
| <component> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.115"/> |  |
| <observation classCode="OBS" moodCode="EVN"> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.115"/> |  |
| <code code="67528-0" displayName="ChestAndLungsAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/> |  |
| <value xsi:type="CD" code="LA17208-2" displayName="Bleeding controlled" codeSystem="2.16.840.1.113883.6.1"/> |  |
| <value xsi:type="CD" code="LA17244-7" displayName="Gunshot wound entry" codeSystem="2.16.840.1.113883.6.1"/> |  |
| </observation> |  |
| </component> |  |
| <component> |  |
| <observation classCode="OBS" moodCode="EVN"> |  |
| <templateId root="2.16.840.1.113883.17.3.10.1.115"/> |  |
| <code code="67528-0" displayName="ChestAndLungsAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/> |  |
| <value xsi:type="CD" code="LA17225-6" displayName="Breath sounds-decreased-left" codeSystem="2.16.840.1.113883.6.1"/> |  |
| </observation> |  |
| </component> |  |
| <component> |  |
| <observation classCode="OBS" moodCode="EVN"> |  |
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            <th>medication</th>
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            <th>site</th>
            <th>dose</th>
            <th>device</th>
            <th>performer</th>
            <th>response</th>
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            <td>Oxygen</td>
            <td>Respiratory</td>
            <td>structure of respiratory region of nose</td>
            <td>15 L/min</td>
            <td>partial rebreather mask</td>
            <td>EMT-paramedic: 908786906</td>
            <td>Unchanged</td>
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        <td>Improved</td>
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        <td>Law enforcement</td>
        <td>Improved</td>
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      <paragraph><content styleCode="Bold">S </content>Called for motor vehicle crash</paragraph>
      <paragraph><content styleCode="Bold">O </content>Restrained make patient found in driver's seat of 4-door sedan. Pt unresponsive. Law
enforcement holding c-spine and placed nasal airway for snoring respirations. Bystanders state vehicle swerved off road and came to stop. Exam showed Pt
suffered a gun shot wound to L side at 5th intercostal space. </paragraph>

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<paragraph><content styleCode="Bold">A </content>Patent with nasal airway</paragraph>
<paragraph><content styleCode="Bold">B </content>Labored at 22 with decreased lung sounds</paragraph>
<paragraph><content styleCode="Bold">C </content>Sinus tach rapid, regular 108-142</paragraph>
<paragraph><content styleCode="Bold">D </content>Decreased level of consciousness with GCS = 9, AVPU = P</paragraph>
<paragraph><content styleCode="Bold">E </content>HEENT: intact, no trauma noted. Neck: supple, no JVD; Trachea midline. Chest: GSW as noted; decreased LS to left side. ABD: soft nontender. Pelvis: intact. GI: intact. Ext: moves all extremities with pupose upon painful stimulation, no trauma noted. </paragraph>
<paragraph><content styleCode="Bold">PLAN </content>C collar, nasal airway with O2 @ 15 LPM via NRB, LSB, monitor. Sinus tach, no ectopy, occlusive dressing. Reassess: O2 sats decreased, labored breathing. Treatment: needle chest decompression L side. Transport lights and siren. Enroute two IVs established. Diverted to XXX hospital. Breathing improved. Care and report to ED staff.</paragraph>
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<tr>
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          <tr>
            <td>Incident disposition</td>
            <td>Patient treated, transported by EMS</td>
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            <td>Transport mode</td>
            <td>Emergent</td>
            <td></td>
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          <tr>
            <td>Reason for choosing destination</td>
            <td>Diversion</td>
            <td></td>
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          <tr>
            <td>Prearrival activation performed</td>
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          <tr>
            <td>Patient condition change at destination</td>
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            <td>Protocol age category</td>
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          </tr>
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          <tr>
            <td>Scene</td>
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          <tr>
            <td>Transport</td>
            <td>None</td>
            <td></td>
          </tr>
          <tr>
            <td>Turnaround</td>
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            <td></td>
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      <td>No information</td>
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      <paragraph>Injury Mechanism: Penetrating</paragraph>
      <paragraph>Location of patient in vehicle: Front seat-left side (or motorcycle driver)</paragraph>
      <paragraph>Safety equipment: Lap belt without shoulder belt</paragraph>
      <paragraph>Airbag deployment: No airbag deployed</paragraph>
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