

**Emergency Medical
Services Patient Care Report**
Jan 2022



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Chapter 1

INTRODUCTION

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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 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.

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.

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. 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** (CONF:11388) 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:) (CONF:10002)
7. **SHALL** contain exactly one [1..1] **title**="EMS Patient Care Report" which **SHALL** equal "EMS Patient Care Report" (CONF:11389)
8. **SHALL** contain exactly one [1..1] **confidentialityCode**="N" /**@code**="N" (CodeSystem:) (CONF:11390)

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** such that it (CONF:10004)

- a. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:10870)
 - a. **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

EPatient.09 . . . /PatientRole/addr/postalCode

EPatient.10 . . . /PatientRole/addr/country

- b. **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. contains zero or more [0..*] **telecom**

NEMESIS Trace: EPatient.18

- d. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)

- a. **SHALL** contain at least one [1..*] **id** (CONF:5417, R2.1=CONF:1198-5417)

- b. **SHALL** contain at least one [1..*] **name** (CONF:5419, R2.1=CONF:1198-5419)
- c. **SHALL** contain at least one [1..*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
- d. **SHALL** contain at least one [1..*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
- e. 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, R2.1=CONF:1198-16820)
- e. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:10872)
 - a. **SHOULD** contain zero or one [0..1] **birthTime** (CONF:10873)

NEMESIS Trace
EPatient.17

- b. **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

- c. **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.

- d. **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.

- e. **MAY** contain zero or more [0..*] **SDTCRaceCode** (CONF:10877), which **SHALL** be selected from ValueSet RaceCategory 2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:10034)

NEMESIS Trace: EPatient.14

- f. **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

See terminology map in Appendix.

- 11. **SHALL** contain at least one [1..*] **author** such that it (CONF:10027)

- a. **SHALL** contain exactly one [1..1] **time** (CONF:5445, R2.1=CONF:1198-5445)

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).

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. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:5448)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:5449, R2.1=CONF:1198-5449)
 - b. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:16788)
 - c. **SHALL** contain at least one [1..*] **addr** (CONF:5452, R2.1=CONF:1198-5452)
 - d. **SHALL** contain at least one [1..*] **telecom** (CONF:5428, R2.1=CONF:1198-5428)
 - e. contain zero or one [0..1] **assignedAuthoringDevice** such that it
 - a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)
 - b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)
 - f. contain zero or one [0..1] **assignedPerson** such that it
 - a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)
 - g. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:16790, R2.1=CONF:1198-16790)
 - h. If this assignedAuthor is an assignedPerson, the assignedAuthor **SHOULD** contain zero to one [0..1] id 'such that it': **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor 2.16.840.1.113883.5.1008), **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier, and **SHOULD** contain zero or one [0..1] @extension (CONF:31135, CONF:31694, R2.1=CONF:1198-32882, R2.1=CONF:1198-32883, R2.1=CONF:1198-32884, R2.1=CONF:1198-32885)
- c. **SHALL** contain exactly one [1..1] **assignedAuthor** such that it (CONF:10879)
 - a. **SHOULD** contain zero or one [0..1] **code** (CONF:16787), which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy (HIPAA) 2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:16788)
 - b. **SHALL** contain exactly one [1..1] **id** (CONF:10039)

NEMESIS Trace: EOther.08 for human author; may be null for a software device
 - c. **SHALL** contain exactly one [1..1] **addr** (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
 - d. **SHALL** contain exactly one [1..1] **telecom** (CONF:10041)

Required for human author; may be null for a software device
NEMESIS Trace: DPersonnel.09
 - e. contain zero or one [0..1] **assignedAuthoringDevice** such that it
 - a. **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:16784, R2.1=CONF:1198-16784)
 - b. **SHALL** contain exactly one [1..1] **softwareName** (CONF:16785, R2.1=CONF:1198-16785)
 - f. contain zero or one [0..1] **assignedPerson** such that it
 - a. **SHALL** contain at least one [1..*] **name** (CONF:16789, R2.1=CONF:1198-16789)
 - g. **MAY** contain zero or one [0..1] **assignedPerson** such that it (CONF:10880)
 - a. **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

- h. MAY** contain zero or one [0..1] **assignedAuthoringDevice** such that it (CONF:10881)

One authoring device is required for the document.

- a. SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:9936)

NEMESIS Trace: ERecord.02

- b. SHALL** contain exactly one [1..1] **softwareName** (CONF:9999)

NEMESIS Trace: ERecord.03 and ERecord.04 (version), concatenated with an intervening caret ("^")

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

- a. SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:5520, R2.1=CONF:1198-5520)

- a. SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:5521, R2.1=CONF:1198-5521)

- a. SHALL** contain at least one [1..*] **id** (CONF:5522, R2.1=CONF:1198-5522)

- b. SHALL** contain exactly one [1..1] **name** (CONF:5524, R2.1=CONF:1198-5524)

- c. SHALL** contain exactly one [1..1] **telecom** (CONF:5525, R2.1=CONF:1198-5525)

- d. SHALL** contain exactly one [1..1] **addr** (CONF:5559, R2.1=CONF:1198-5559)

- e. The id SHOULD** include zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:16822, R2.1=CONF:1198-16822)

- b. SHALL** contain exactly one [1..1] **assignedCustodian** such that it (CONF:10884)

- a. SHALL** contain exactly one [1..1] **representedCustodianOrganization** such that it (CONF:10885)

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

NEMESIS Trace: EResponse.02

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

- a. SHALL** contain exactly one [1..1] **@typeCode**="DST" (CONF:10054)

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

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

- c. contain** zero or one [0..1] **associatedEntity** such that it

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

NEMESIS Trace: EDisposition.03-07

- b. 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

- c. **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" , which **SHALL** be selected from ValueSet **STATIC** (CONF:10901)

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

- a. **SHALL** contain exactly one [1..1] **serviceEvent** such that it (CONF:10889)

- a. **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. **SHALL** contain at least two [2..*] **id** (CONF:10890)

NEMESIS Trace: eResponse.03 Incident Number

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

NEMESIS Trace: eResponse.04 EMS Vehicle (Unit) Response Number

id/@extension is the unit number assigned by the Agency, where the id/@root SHOULD be the OID of the Agency

- c. **SHALL** contain at least one [1..*] **performer** such that it (CONF:10891)

- a. **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. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:10892)

- a. **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

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

NEMESIS Trace: ECrew.01

- c. **MAY** contain zero or one [0..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

- d. **MAY** contain zero or one [0..1] **telecom** (CONF:10896)

NEMESIS Trace: DPersonnel.09

- e. **MAY** contain zero or one [0..1] **assignedPerson** such that it (CONF:10897)

- a. **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** such that it (CONF:10029)

- a. contain exactly one [1..1] **@typeCode**="RPLC"

- b. **MAY** contain zero or one [0..1] **parentDocument** such that it (CONF:10899)

- a. **SHALL** contain exactly one [1..1] **id** (CONF:10900)

NEMESIS Trace: ERecord.01

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

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

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

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

NEMESIS Trace: eResponse.04 (response number)

- c. **SHALL** contain exactly one [1..1] **location** such that it (CONF:10883)
- a. **SHALL** contain exactly one [1..1] **healthCareFacility** such that it (CONF:10044)
 - a. **SHALL** contain at least one [1..*] **id** (CONF:10045)

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

- b. **SHALL** contain exactly one [1..1] **code** (CONF:11381), which **SHALL** be selected from ValueSet UnitEquipmentCapability 2.16.840.1.113883.17.3.11.82 **DYNAMIC** (CONF:10047)

NEMESIS Trace: EResponse.07

- c. **SHALL** contain exactly one [1..1] **location** such that it (CONF:10046)
 - a. **SHALL** contain exactly one [1..1] **@classCode="PLC"** (CONF:10050)
 - b. **MAY** contain zero or one [0..1] **name** (CONF:10048)

NEMESIS Trace: EScene.13

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

NEMESIS Trace: EScene.15-21

- d. **MAY** contain zero or more [0..*] **encounterParticipant** such that it (CONF:11325)
 - a. **SHALL** contain exactly one [1..1] **@typeCode="CON"**, which **SHALL** be selected from (CONF:11327)
 - b. contain exactly one [1..1] **assignedEntity** such that it
 - a. contain exactly one [1..1] **@classCode="ASSIGNED"**
 - b. contain exactly one [1..1] **representedOrganization** such that it
 - a. contain exactly one [1..1] **name**

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

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

- a. Conforms to [EMS Current Medication Section](#) (templateId: 2.16.840.1.113883.17.3.10.1.15)

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

- a. Conforms to [EMS Cardiac Arrest Event Section](#) (templateId: 2.16.840.1.113883.17.3.10.1.14)

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

- a. Conforms to [EMS Advance Directives Section](#) (templateId: 2.16.840.1.113883.17.3.10.1.12)

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

- a. Conforms to [EMS Allergies And Adverse Reactions Section](#) (templateId: 2.16.840.1.113883.17.3.10.1.13)

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

- a. Conforms to [EMS Past Medical History Section](#) (templateId: 2.16.840.1.113883.17.3.10.1.19)

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

- a. Conforms to *EMS Social History Section* (templateId: 2.16.840.1.113883.17.3.10.1.22)
- 23. SHALL contain [1..1] **component** such that it (CONF:10014)
 - a. Conforms to *EMS Physical Assessment Section* (templateId: 2.16.840.1.113883.17.3.10.1.20)
- 24. MAY contain [0..1] **component** such that it (CONF:10015)
 - a. Conforms to *EMS Medications Administered Section* (templateId: 2.16.840.1.113883.17.3.10.1.18)
- 25. SHALL contain [1..1] **component** such that it (CONF:10016)
 - a. Conforms to *EMS Procedures Performed Section* (templateId: 2.16.840.1.113883.17.3.10.1.21)
- 26. SHALL contain [1..1] **component** such that it (CONF:10017)
 - a. Conforms to *EMS Patient Care Narrative Section* (templateId: 2.16.840.1.113883.17.3.10.1.1)
- 27. SHALL contain [1..1] **component** such that it (CONF:10018)
 - a. Conforms to *EMS Scene Section* (templateId: 2.16.840.1.113883.17.3.10.1.8)
- 28. SHALL contain [1..1] **component** such that it (CONF:10019)
 - a. Conforms to *EMS Dispatch Section* (templateId: 2.16.840.1.113883.17.3.10.1.2)
- 29. MAY contain [0..1] **component** such that it (CONF:10020)
 - a. Conforms to *EMS Disposition Section* (templateId: 2.16.840.1.113883.17.3.10.1.4)
- 30. SHALL contain [1..1] **component** such that it (CONF:10021)
 - a. Conforms to *EMS Personnel Adverse Event Section* (templateId: 2.16.840.1.113883.17.3.10.1.6)
- 31. SHALL contain [1..1] **component** such that it (CONF:10022)
 - a. Conforms to *EMS Protocol Section* (templateId: 2.16.840.1.113883.17.3.10.1.7)
- 32. SHALL contain [1..1] **component** such that it (CONF:10023)
 - a. Conforms to *EMS Response Section* (templateId: 2.16.840.1.113883.17.3.10.1.3)
- 33. SHALL contain [1..1] **component** such that it (CONF:10024)
 - a. Conforms to *EMS Situation Section* (templateId: 2.16.840.1.113883.17.3.10.1.9)
- 34. MAY contain [0..1] **component** such that it (CONF:10025)
 - a. Conforms to *EMS Times Section* (templateId: 2.16.840.1.113883.17.3.10.1.10)
- 35. SHALL contain [1..1] **component** such that it (CONF:10026)
 - a. Conforms to *EMS Vital Signs Section* (templateId: 2.16.840.1.113883.17.3.10.1.23)
- 36. SHALL contain [1..1] **component** such that it (CONF:10869)
 - a. Conforms to *EMS Injury Incident Description Section* (templateId: 2.16.840.1.113883.17.3.10.1.17)
- 37. SHOULD contain [0..*] **component** such that it (CONF:11318)
 - a. Conforms to *EMS Billing Section* (templateId: 2.16.840.1.113883.17.3.10.1.5)

Patient Care Report example

```
<?xml version="1.0" encoding="UTF-8"?>
<ClinicalDocument xmi:version="2.0" xmlns:xmi="http://www.omg.org/XMI"
  xmlns="urn:hl7-org:v3" classCode="DOCCLIN" moodCode="EVN">
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3" extension="testString"/>
  <templateId root="2.16.840.1.113883.17.3.10.2"/>
  <id/>
  <code code="67796-3" displayName="EMS patient care report - version 3.1
Document NEMESIS"/>
  <title>EMS Patient Care Report</title>
  <effectiveTime/>
  <confidentialityCode code="N"/>
```

```

<languageCode/>
<recordTarget>
  <patientRole>
    <id/>
    <addr/>
    <patient>
      <administrativeGenderCode/>
      <raceCode/>
    </patient>
  </patientRole>
</recordTarget>
<author>
  <time/>
  <assignedAuthor>
    <id/>
    <addr><city/><streetAddressLine/></addr>
    <telecom/>
  </assignedAuthor>
</author>
<author>
  <time/>
  <assignedAuthor>
    <id/>
    <addr><city/><streetAddressLine/></addr>
    <telecom/>
  </assignedAuthor>
</author>
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id/>
      <name/>
      <telecom/>
      <addr><city/><streetAddressLine/></addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
<participant typeCode="DST">
  <associatedEntity classCode="WRTE"/>
</participant>
<documentationOf>
  <serviceEvent/>
</documentationOf>
<componentOf typeCode="COMP">
  <encompassingEncounter>
    <id/>
    <effectiveTime/>
    <location>
      <healthCareFacility>
        <id/>
        <code/>
        <location classCode="PLC"/>
      </healthCareFacility>
    </location>
  </encompassingEncounter>
</componentOf>
<component/>
</ClinicalDocument>

```

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** (CONF:11395) 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:) (CONF:10191)
3. **SHALL** contain exactly one [1..1] **title**="EMS Advance Directive Section" which **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** such that it (CONF:10946)
 - a. Conforms to [Advance Directive Observation](#) (templateId: 2.16.840.1.113883.17.3.10.1.98)

EMS Advance Directives Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.12"/>
  <code code="67840-9" displayName="EMS advance directives Narrative NEMESIS"/>
  <title>EMS advance directives Narrative NEMESIS</title>
  <text/>
</section>
```

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** (CONF:11396) 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:) (CONF:10196)
3. **SHALL** contain exactly one [1..1] **title**="EMS Allergies and Adverse Reactions" which **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** such that it (CONF:10953)
 - a. Conforms to [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** such that it (CONF:11319)
 - a. Conforms to [Drug Allergy Organizer](#) (templateId: 2.16.840.1.113883.17.3.10.1.183)

EMS Allergies And Adverse Reactions Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.13"/>
  <code code="48765-2" displayName="Allergies and adverse reactions Document"/>
  <title>EMS Allergies and Adverse Reactions</title>
  <text/>
</section>
```

```
</section>
```

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** (CONF:11392) 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:) (CONF:10080)
3. **SHALL** contain exactly one [1..1] **title** which **SHOULD** equal "EMS Billing Section" (CONF:10907)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10909)
5. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10910)
 - a. Conforms to *Billing Condition* (templateId: 2.16.840.1.113883.17.3.10.1.91)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10912)
 - a. Conforms to *Level Of Service Observation* (templateId: 2.16.840.1.113883.17.3.10.1.92)

EMS Billing Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.5"/>
  <code code="67659-3" displayName="EMS billing Narrative NEMESIS"/>
  <title>EMS Billing Section</title>
  <text/>
</section>
```

EMS Cardiac Arrest Event Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.14]

Information regarding a cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11394) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.14"
2. **SHALL** contain exactly one [1..1] **code/@code**="67799-7" *EMS cardiac arrest event Narrative NEMESIS* (CodeSystem:) (CONF:10134)
3. **SHALL** contain exactly one [1..1] **title**="EMS Cardiac Arrest Event" which **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** such that it (CONF:10939)
 - a. Conforms to *Cardiac Arrest* (templateId: 2.16.840.1.113883.17.3.10.1.27)

EMS Cardiac Arrest Event Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.14"/>
  <code code="67799-7" displayName="EMS cardiac arrest event Narrative NEMESIS"/>
  <title>EMS Cardiac Arrest Event</title>
  <text/>
</section>
```

```
</section>
```

EMS Current Medication Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.15]

Information regarding a patient's current medications

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11397) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.15"
2. **SHALL** contain exactly one [1..1] **code/@code**="67844-1" *EMS current medications Narrative NEMESIS* (CodeSystem:) (CONF:10955)
3. **SHALL** contain exactly one [1..1] **title**="EMS Current Medications" which **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** such that it (CONF:10958)
 - a. Conforms to *Currently On Medication* (templateId: 2.16.840.1.113883.17.3.10.1.75)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:10962)
 - a. Conforms to *Current Medication* (templateId: 2.16.840.1.113883.17.3.10.1.77)

EMS Current Medication Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.15"/>
  <code code="67844-1" displayName="EMS current medications Narrative NEMESIS"/>
  <title>EMS Current Medications Section</title>
  <text/>
</section>
```

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** (CONF:11406) 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:) (CONF:10556)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:10991)
 - a. Conforms to *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** such that it (CONF:10993)
 - a. Conforms to *Complaint Reported By Dispatch* (templateId: 2.16.840.1.113883.17.3.10.1.74)

EMS Dispatch Section example

```
<section>
```



```

<templateId root="2.16.840.1.113883.17.3.10.1.2"/>
<code code="67660-1" displayName="EMS dispatch Narrative NEMESIS"/>
<title>EMS Dispatch</title>
<text/>
</section>

```

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** (CONF:11408) 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** which **SHOULD** equal "EMS Disposition" (CONF:10654)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10653)
5. If section/**@nullFlavor** is not present, **MAY** contain [0..1] **entry** such that it (CONF:11003)
 - a. Conforms to *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** such that it (CONF:11007)
 - a. Conforms to *Transport Mode Observation* (templateId: 2.16.840.1.113883.17.3.10.1.33)
7. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11009)
 - a. Conforms to *Transport Method Observation* (templateId: 2.16.840.1.113883.17.3.10.1.34)
8. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11011)
 - a. Conforms to *Reason For Choosing Destination Observation* (templateId: 2.16.840.1.113883.17.3.10.1.35)
9. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11013)
 - a. Conforms to *Prearrival Activation Observation* (templateId: 2.16.840.1.113883.17.3.10.1.36)
10. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11015)
 - a. Conforms to *Patient Condition At Destination Observation* (templateId: 2.16.840.1.113883.17.3.10.1.37)
11. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11330)
 - a. Conforms to *Primary Destination Hospital Capability* (templateId: 2.16.840.1.113883.17.3.10.1.104)
12. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11331)
 - a. Conforms to *Destination Ward* (templateId: 2.16.840.1.113883.17.3.10.1.186)
13. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11409)
 - a. Conforms to *Unit Disposition* (templateId: 2.16.840.1.113883.17.3.10.1.196)
14. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11410)
 - a. Conforms to *Patient Engagement* (templateId: 2.16.840.1.113883.17.3.10.1.197)
15. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11411)
 - a. Conforms to *Crew Disposition* (templateId: 2.16.840.1.113883.17.3.10.1.198)
16. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11412)
 - a. Conforms to *Transport Disposition* (templateId: 2.16.840.1.113883.17.3.10.1.199)

EMS Disposition Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.4"/>
  <code code="67661-9" codeSystem="2.16.840.1.113883.6.1" displayName="EMS
  disposition Narrative NEMESIS"/>
  <title>EMS Disposition</title>
  <text/>
</section>
```

EMS Injury Incident Description Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.17]

Observations concerning a patient's injury mechanism

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11393) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.17"
2. **SHALL** contain exactly one [1..1] **code/@code**="67800-3" *EMS injury incident description Narrative NEMESIS* (CodeSystem:) (CONF:10094)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:10917)
 - a. Conforms to *Injury Cause Category* (templateId: 2.16.840.1.113883.17.3.10.1.50)
6. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10919)
 - a. Conforms to *Injury Mechanism* (templateId: 2.16.840.1.113883.17.3.10.1.51)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10921)
 - a. Conforms to *Trauma Center Criteria* (templateId: 2.16.840.1.113883.17.3.10.1.52)
8. If section/@nullFlavor is not present, **SHALL** contain [1..*] **entry** such that it (CONF:10923)
 - a. Conforms to *Injury Risk Factor* (templateId: 2.16.840.1.113883.17.3.10.1.53)
9. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10925)
 - a. Conforms to *Vehicle Impact Area* (templateId: 2.16.840.1.113883.17.3.10.1.54)
10. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10927)
 - a. Conforms to *Patient Location In Vehicle* (templateId: 2.16.840.1.113883.17.3.10.1.55)
11. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10929)
 - a. Conforms to *Vehicle Occupant Safety Equipment* (templateId: 2.16.840.1.113883.17.3.10.1.56)
12. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10931)
 - a. Conforms to *Airbag Deployment Status* (templateId: 2.16.840.1.113883.17.3.10.1.57)
13. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10933)
 - a. Conforms to *Height Of Fall* (templateId: 2.16.840.1.113883.17.3.10.1.58)
14. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10935)
 - a. Conforms to *Disaster Type* (templateId: 2.16.840.1.113883.17.3.10.1.59)

EMS Injury Incident Description Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.17"/>
```

```
<code code="67800-3" displayName="EMS injury incident description
Narrative NEMESIS"/>
<title>Injury Incident Description Section</title>
<text/>
</section>
```

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** (CONF:11403) 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:) (CONF:10987)
3. **SHALL** contain exactly one [1..1] **title**="Medications Administered" which **SHOULD** equal "Medications Administered Section" (CONF:10442)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10441)
5. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:10989)
 - a. Conforms to *Medication Administered* (templateId: 2.16.840.1.113883.17.3.10.1.72)

EMS Medications Administered Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.18"/>
  <code code="67849-0" displayName="EMS medications administered Narrative
  NEMESIS"/>
  <title>Medications Administered Section</title>
  <text/>
</section>
```

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** (CONF:11391) 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:) (CONF:10058)
3. **SHALL** contain exactly one [1..1] **title**="EMS Past Medical History" which **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** such that it (CONF:10903)
 - a. Conforms to *Existence Of History Of Condition Or Surgery* (templateId: 2.16.840.1.113883.17.3.10.1.60)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:10905)
 - a. Conforms to *Medical/Surgical History* (templateId: 2.16.840.1.113883.17.3.10.1.61)

EMS Past Medical History Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.19"/>
  <code code="67842-5" displayName="EMS past medical history Narrative
  NEMSIS"/>
  <title>EMS Past Medical History</title>
  <text/>
</section>
```

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** (CONF:11405) 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:) (CONF:10552)
 3. **SHALL** contain exactly one [1..1] **title** which **SHOULD** equal "EMS Patient Care Report Narrative" (CONF:10554)
 4. **SHALL** contain exactly one [1..1] **text** (CONF:10553)
- NEMSIS Trace: ENarrative.01

EMS Patient Care Narrative Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.1"/>
  <code code="67781-5" displayName="Summarization of encounter note
  Narrative"/>
  <title>EMS Patient Care Report Narrative</title>
  <text/>
</section>
```

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** (CONF:11413) 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 NEMSIS* (CodeSystem:) (CONF:10697)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:11017)
 - a. Conforms to [Adverse Event Indicator](#) (templateId: 2.16.840.1.113883.17.3.10.1.89)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:11019)
 - a. Conforms to [Adverse Event Type Observation](#) (templateId: 2.16.840.1.113883.17.3.10.1.90)

EMS Personnel Adverse Event Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.6"/>
  <code code="67658-5" displayName="EMS exposures or injuries of EMS
  personnel Provider Narrative NEMESIS"/>
  <title>Exposures or Injuries of EMS Personnel</title>
  <text/>
</section>
```

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** (CONF:11400) 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:) (CONF:10336)
3. **SHALL** contain exactly one [1..1] **title**="EMS Physical Assessment Section" which **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, **SHOULD** contain [0..*] **entry** such that it (CONF:10975)
 - a. Conforms to *Physical Assessment Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.78)
6. If section/**@nullFlavor** is not present, **MAY** contain [0..1] **entry** such that it (CONF:10977)
 - a. Conforms to *Patient Pregnancy* (templateId: 2.16.840.1.113883.17.3.10.1.79)
7. If section/**@nullFlavor** is not present, **MAY** contain [0..1] **entry** such that it (CONF:10979)
 - a. Conforms to *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** such that it (CONF:10981)
 - a. Conforms to *Patient Age* (templateId: 2.16.840.1.113883.17.3.10.1.81)
9. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10983)
 - a. Conforms to *Thrombolytic Contraindications* (templateId: 2.16.840.1.113883.17.3.10.1.82)
10. If section/**@nullFlavor** is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10985)
 - a. Conforms to *Barriers To Patient Care* (templateId: 2.16.840.1.113883.17.3.10.1.83)
11. **MAY** contain zero or one [0..1] **entry** such that it (CONF:11401)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Patient Body Weight* (CONF:11099)
12. **MAY** contain zero or one [0..1] **entry** such that it (CONF:11402)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Length Based Patient Body Weight Class* (CONF:11100)

EMS Physical Assessment Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.20"/>
  <code code="29545-1" displayName="Physical findings Narrative"/>
  <title>EMS Physical Assessment Section</title>
  <text/>
</section>
```

EMS Procedures Performed Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.21]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11404) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.21"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10490)/**@code**="29554-3" *Procedure Narrative* (CodeSystem:) (CONF:10489)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:6277)
 - a. Conforms to *Procedure* (templateId: 2.16.840.1.113883.17.3.10.1.181)

EMS Procedures Performed Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.21"/>
  <code code="29554-3" displayName="Procedure Narrative"/>
  <title>EMS Procedures Performed</title>
  <text/>
</section>
```

EMS Protocol Section

[Section: templateId 2.16.840.1.113883.17.3.10.1.7]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11414) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.7"
2. **SHALL** contain exactly one [1..1] **code**/ **@code**="67663-5" *EMS protocol Narrative NEMESIS* (CodeSystem:) (CONF:10713)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:11024)
 - a. Conforms to *Protocol Observation* (templateId: 2.16.840.1.113883.17.3.10.1.93)
6. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:11026)
 - a. Conforms to *Candidate Patient Registry Type* (templateId: 2.16.840.1.113883.17.3.10.1.94)

EMS Protocol Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.7"/>
  <code code="67663-5" displayName="EMS protocol Narrative NEMESIS"/>
  <title>EMS Protocol Section</title>
  <text/>
</section>
```

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** (CONF:11407) 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 NEMSIS* (CodeSystem:) (CONF:10572)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:10995)
 - a. Conforms to *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** such that it (CONF:10997)
 - a. Conforms to *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** such that it (CONF:10999)
 - a. Conforms to *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** such that it (CONF:11001)
 - a. Conforms to *Response Mode To Scene* (templateId: 2.16.840.1.113883.17.3.10.1.182)

EMS Response Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.3"/>
  <code code="67664-3" displayName="EMS response Narrative NEMSIS"/>
  <title>EMS Response</title>
  <text/>
</section>
```

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** (CONF:11415) 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 NEMSIS* (CodeSystem:) (CONF:10732)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:11028)
 - a. Conforms to *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** such that it (CONF:11032)
 - a. Conforms to *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** such that it (CONF:11034)
 - a. Conforms to *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** such that it (CONF:11036)
 - a. Conforms to *Location Type Observation* (templateId: 2.16.840.1.113883.17.3.10.1.88)

EMS Scene Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.8"/>
  <code code="67665-0" displayName="EMS scene Narrative NEMESIS"/>
  <title>EMS Scene</title>
  <text/>
</section>
```

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** (CONF:11416) 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:) (CONF:10756)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:11039)
 - a. Conforms to *Complaint* (templateId: 2.16.840.1.113883.17.3.10.1.63)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11041)
 - a. Conforms to *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** such that it (CONF:11043)
 - a. Conforms to *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** such that it (CONF:11045)
 - a. Conforms to *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** such that it (CONF:11047)
 - a. Conforms to *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** such that it (CONF:11049)
 - a. Conforms to *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** such that it (CONF:11051)
 - a. Conforms to *Initial Patient Acuity* (templateId: 2.16.840.1.113883.17.3.10.1.69)

EMS Situation Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.9"/>
  <code code="67666-8" displayName="EMS situation Narrative NEMESIS"/>
  <title>EMS Situation Section</title>
  <text/>
</section>
```


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** (CONF:11398) 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:) (CONF:10240)
3. **SHALL** contain exactly one [1..1] **title**="EMS Social History" which **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** such that it (CONF:10965)
 - a. Conforms to *Existence Of Drug Use Indication* (templateId: 2.16.840.1.113883.17.3.10.1.70)
6. If section/@nullFlavor is not present, **MAY** contain [0..*] **entry** such that it (CONF:10967)
 - a. Conforms to *Drug Use Indication* (templateId: 2.16.840.1.113883.17.3.10.1.71)

EMS Social History Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.22"/>
  <code code="67843-3" displayName="EMS social history Narrative NEMESIS"/>
  <title>EMS Social History</title>
  <text/>
</section>
```

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>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Call Time</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Dispatch Notified Time</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Arrived At Destination Time</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |

| Contained By | Contains |
|--------------|--|
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</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** (CONF:11417) 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:) (CONF:10820)
3. **SHALL** contain exactly one [1..1] **title** which **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** such that it (CONF:11053)
 - a. Conforms to *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** such that it (CONF:11055)
 - a. Conforms to *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** such that it (CONF:11057)
 - a. Conforms to *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** such that it (CONF:11059)
 - a. Conforms to *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** such that it (CONF:11061)
 - a. Conforms to *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** such that it (CONF:11063)
 - a. Conforms to *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** such that it (CONF:11065)

- a. Conforms to *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** such that it (CONF:11067)
 - a. Conforms to *Unit Back In Service Time* (templateId: 2.16.840.1.113883.17.3.10.1.45)
- 13. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:11069)
 - a. Conforms to *Dispatch Notified Time* (templateId: 2.16.840.1.113883.17.3.10.1.46)

EMS Times Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.10"/>
  <code code="67667-6" displayName="EMS times Narrative NEMESIS"/>
  <title>EMS Times</title>
  <text/>
</section>
```

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** (CONF:11399) 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:) (CONF:10252)
3. **SHALL** contain exactly one [1..1] **title**="EMS Vital Signs" which **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** such that it (CONF:10970)
 - a. Conforms to *Vital Signs Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.28)

EMS Vital Signs Section example

```
<section>
  <templateId root="2.16.840.1.113883.17.3.10.1.23"/>
  <code code="8716-3" displayName="Vital Signs"/>
  <title>EMS Vital Signs</title>
  <text/>
</section>
```

Chapter

4

CLINICAL STATEMENT TEMPLATES

Topics:

- *Abandoned Procedure Reason Observation*
- *Abdomen Assessment*
- *Additional Vital Signs Organizer*
- *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 Assessment*
- *Complaint*
- *Complaint Duration*
- *Complaint Organ System*
- *Complaint Reported By Dispatch*
- *Complaint Type*
- *Crew Disposition*
- *Current Medication*
- *Currently On Medication*

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.

- *Delay Organizer*
- *Destination Rhythm*
- *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 Or Surgery*
- *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*
- *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*

- *Lung Assessment*
- *Mass Casualty Indicator*
- *Medical/Surgical History*
- *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 Engagement*
- *Patient Location In Vehicle*
- *Patient Pregnancy*
- *Pelvic And Genitourinary Assessment*
- *Physical Assessment Organizer*
- *Possible Injury*
- *Preadvival Activation Observation*
- *Primary Destination Hospital Capability*
- *Primary Symptom*
- *Prior Aid Vitals*
- *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 Disposition*
- *Transport Method Observation*
- *Transport Mode Observation*
- *Transport Mode Qualifier*
- *Trauma Center Criteria*
- *Turnaround Delay*
- *Unit At Patient Time*
- *Unit Back In Service Time*
- *Unit Disposition*
- *Unit En Route Time*
- *Unit Left Scene Time*
- *Unit Notified Time*
- *Unit On Scene Time*
- *Vehicle Impact Area*

- *Vehicle Occupant Safety Equipment*
- *Vital Signs Organizer*

Abandoned Procedure Reason Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.130]

An explanation of why efforts to conduct a procedure were abandoned

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11522) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.130"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11255)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10512)/**@code**="ASSERTION" *Assertion* (CodeSystem: 2.16.840.1.113883.5.4 ActCode) (CONF:10511)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10514), which **SHALL** be selected from ValueSet *ResuscitationDiscontinueReason* 2.16.840.1.113883.17.3.11.62 **DYNAMIC** (CONF:10513)

NEMESIS Trace: EArrest.16 (Reason CPR/resuscitation discontinued)

Abandoned Procedure Reason Observation example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.130"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <value xsi:type="CD"
    code="LA18204-0"
    displayName="Physically unable to perform"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
</observation>
```

Abdomen Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.117]

Qualitative assessment of condition of patient's abdomen

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11511) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.117"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11234)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67530-6" *Physical findings of Abdomen NEMESIS* (CodeSystem:) (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* 2.16.840.1.113883.17.3.11.31 **DYNAMIC** (CONF:10388)

NEMESIS Trace: EExam.11
6. **SHALL** contain zero or one [0..1] **targetSiteCode**, which **SHALL** be selected from ValueSet *AbdominalFindingLocation* 2.16.840.1.113883.17.3.11.32 **DYNAMIC** (CONF:10389)

NEMESIS Trace: EExam.10

Abdomen Assessment example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.117"/>
  <code code="67530-6" displayName="Physical findings of Abdomen NEMESIS"/>
  <value xsi:type="CD" code="LA6626-1" displayName="Normal"
codeSystem="2.16.840.1.113883.6.1"/>
  <targetSiteCode code="LA18721-3" displayName="Generalized"
codeSystem="2.16.840.1.113883.6.1"/>
</observation>
```

Additional Vital Signs Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.30]

Common observations regarding the state of the patient that are not typically included in strict definitions of vital signs.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11571) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.30"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11133)
3. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11134)

NEMESIS Trace: EVitals.01
4. **MAY** contain [0..1] **component** such that it (CONF:11091)
 - a. Conforms to *Stroke Score* (templateId: 2.16.840.1.113883.17.3.10.1.163)
5. **MAY** contain [0..1] **component** such that it (CONF:11092)
 - a. Conforms to *Pain Score* (templateId: 2.16.840.1.113883.17.3.10.1.164)
6. **MAY** contain [0..1] **component** such that it (CONF:11093)
 - a. Conforms to *Level Of Responsiveness* (templateId: 2.16.840.1.113883.17.3.10.1.165)
7. **MAY** contain [0..1] **component** such that it (CONF:11094)
 - a. Conforms to *Blood Glucose* (templateId: 2.16.840.1.113883.17.3.10.1.166)
8. **MAY** contain [0..1] **component** such that it (CONF:11095)
 - a. Conforms to *Carbon Monoxide* (templateId: 2.16.840.1.113883.17.3.10.1.167)
9. **MAY** contain [0..1] **component** such that it (CONF:11096)
 - a. Conforms to *Carbon Dioxide* (templateId: 2.16.840.1.113883.17.3.10.1.168)
10. **MAY** contain [0..1] **component** such that it (CONF:11097)
 - a. Conforms to *Cardiac Rhythm* (templateId: 2.16.840.1.113883.17.3.10.1.169)
11. **MAY** contain [0..1] **component** such that it (CONF:11135)
 - a. Conforms to *Glasgow Coma Score Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.170)

Additional Vital Signs Organizer example

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.30"/>
  <statusCode/>
</organizer>
```

Advance Directive Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.98]

Whether an advance directive exists and how it is expressed

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11439) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.98"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11152)
3. **SHALL** contain exactly one [1..1] **code/@code**="67516-5" *Advance directive NEMSIS* (CodeSystem:) (CONF:10194)
NEMSIS 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)

Advance Directive Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.98"/>
  <code code="67516-5" displayName="Advance directive NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11483) 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 NEMSIS* (CodeSystem:) (CONF:10706)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10707)
NEMSIS Trace: EOther.05

Adverse Event Indicator example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.89"/>
  <code code="67554-6" displayName="Work related exposure, injury, or death
  Provider NEMSIS"/>
  <value xsi:type="BL"/>
</observation>
```

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** (CONF:11484) 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 NEMSIS type* (CodeSystem:) (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)

NEMSIS Trace: EOther.06

Adverse Event Type Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.90"/>
  <code code="67555-3" displayName="Work related exposure, injury, or death
  Provider NEMSIS type"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11449) 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 NEMSIS* (CodeSystem:) (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)

NEMSIS Trace: EInjury.08

Airbag Deployment Status example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.57"/>
  <code code="67500-9" displayName="Airbag deployment NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11528) 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 NEMSIS* (CodeSystem:) (CONF:10541)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10546)
NEMSIS 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)
NEMSIS Trace: if EAirway.02 is populated, this is TRUE
6. **MAY** contain zero or more [0..*] **methodCode** (CONF:10544), which **SHALL** be selected from ValueSet *AirwayDeviceConfirmationMethod* 2.16.840.1.113883.17.3.11.60 **DYNAMIC** (CONF:10543)

NEMSIS Trace: EAirway.04

Airway Confirmation Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.175"/>
  <code code="71576-3" displayName="Airway device placement confirmation NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="BL"/>
</observation>
```

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** (CONF:11519) 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 NEMSIS* (CodeSystem:) (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)

NEMSIS Trace: EArrest.11

Arrest Rhythm example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.127"/>
  <code code="67512-4" displayName="First monitored rhythm NEMSIS"/>
</observation>
```

```
<value xsi:type="CD"/>
</observation>
```

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** (CONF:11513) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.119"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11238)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10394)/**@code**="67532-2" *Physical findings of Back +Spine NEMESIS* (CodeSystem:) (CONF:10393)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11239)
NEMESIS Trace: EExam.03
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10397), which **SHALL** be selected from ValueSet BackSpineAssessmentFinding 2.16.840.1.113883.17.3.11.34 **DYNAMIC** (CONF:10398)
NEMESIS Trace: EExam.14
6. **SHALL** contain exactly one [1..1] **targetSiteCode** (CONF:10396), which **SHALL** be selected from ValueSet BackSpineFindingLocation 2.16.840.1.113883.17.3.11.35 **DYNAMIC** (CONF:10395)
NEMESIS Trace: EExam.13

Back And Spine Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.119"/>
  <code code="67532-2" displayName="Physical findings of Back+Spine NEMESIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
  <targetSiteCode/>
</observation>
```

Barriers To Patient Care

[Observation: templateId 2.16.840.1.113883.17.3.10.1.83]

Kinds of circumstances limiting provision of care

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11478) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.83"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11196)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10435)/**@code**="67515-7" *Barriers to patient care NEMESIS* (CodeSystem:) (CONF:10436)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10437), which **SHALL** be selected from ValueSet BarrierToCare 2.16.840.1.113883.17.3.11.85 **DYNAMIC** (CONF:10438)

NEMESIS Trace: EHistory.01

Barriers To Patient Care example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.83"/>
  <code code="67515-7" displayName="Barriers to patient care NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Billing Condition

[Observation: templateId 2.16.840.1.113883.17.3.10.1.91]

Patient condition classified by billing category

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11485) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.91"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11207)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10084)/**@code**="67556-1" *EMS condition code NEMESIS (Billing condition)* (CodeSystem:) (CONF:10086)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10087), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:11206)

NEMESIS Trace: EPayment.51

Billing Condition example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.91"/>
  <code code="67556-1" displayName="EMS condition code NEMESIS (Billing condition)"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>
```

Blood Glucose

[Observation: templateId 2.16.840.1.113883.17.3.10.1.166]

Patient blood glucose measured as a mass concentration

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11556) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.166"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11303)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10300)/**@code**="2339-0" *Glucose [Mass/?volume] in Blood* (CodeSystem:) (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".

Blood Glucose example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.166"/>
  <code code="2339-0" displayName="Glucose [Mass/?volume] in Blood"/>
  <value xsi:type="PQ"/>
</observation>
```

Body Temperature

[Observation: templateId 2.16.840.1.113883.17.3.10.1.176]

Patient's body temperature

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11537) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.176"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11278)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="8310-5" *Body temperature* (CodeSystem:) (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".

Body Temperature example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.176"/>
  <code code="8310-5" displayName="Body temperature"/>
  <value xsi:type="PQ"/>
</observation>
```

Call Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.138]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11430) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.138"
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 NEMESIS* (CodeSystem:) (CONF:10834)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10836)

NEMESIS Trace: ETimes.01

Call Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
```

```
<templateId root="2.16.840.1.113883.17.3.10.1.38"/>
<code code="69469-5" displayName="911 call to public safety answering
point or other designated entity requesting EMS services [Date and time]
Facility NEMSIS"/>
<value xsi:type="TS"/>
</observation>
```

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** (CONF:11488) 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:) (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

Candidate Patient Registry Type example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.94"/>
  <code code="67553-8" displayName="Condition indicating eligibility for
illness or injury registry NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11558) 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:) (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 "%", "mmHg", or "kPa".

Carbon Dioxide example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.168"/>
```

```
<code code="19889-5" displayName="Carbon dioxide/Gas.total.at end
expiration in Exhaled gas"/>
<value xsi:type="PQ"/>
</observation>
```

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** (CONF:11557) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.167"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11305)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10297)/**@code**="20563-3" *Carboxyhemoglobin/? Hemoglobin.total in Blood* (CodeSystem:) (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 "%".

Carbon Monoxide example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.167"/>
  <code code="20563-3" displayName="Carboxyhemoglobin/?Hemoglobin.total in
  Blood"/>
  <value xsi:type="PQ"/>
</observation>
```

Cardiac Arrest

[Observation: templateId 2.16.840.1.113883.17.3.10.1.27]

Characteristics of a patient's cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11420) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.27"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10138)
5. **SHALL** contain exactly one [1..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:) (CONF:10140)

NEMESIS Trace: EArrest.01
7. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10142)

- a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10155)
- b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10154)
- c. SHALL contain exactly one [1..1] **observation**, where its type is *Cardiac Arrest Cause* (CONF:10941)
- 8. SHALL contain at least one [1..*] **informant** such that it (CONF:10144)
 - a. SHALL contain exactly one [1..1] **@typeCode**="INF" (CONF:10158)
 - b. SHALL contain exactly one [1..1] **relatedEntity** such that it (CONF:11071)
 - a. SHALL contain exactly one [1..1] **@classCode**="AGNT" (CONF:10159)
 - b. SHALL contain exactly one [1..1] **code**, which SHALL be selected from ValueSet
CardiacArrestWitnessRole 2.16.840.1.113883.17.3.11.11 DYNAMIC (CONF:10160)
- NEMESIS Trace: EArrest.04*
- 9. SHALL contain exactly one [1..1] **entryRelationship** such that it (CONF:10145)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10162)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10161)
- 10. SHALL contain exactly one [1..1] **entryRelationship** such that it (CONF:10146)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10169)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10168)
- 11. SHALL contain at least one [1..*] **entryRelationship** such that it (CONF:10147)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10182)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10181)
 - c. 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** such that it (CONF:10148)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10187)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10186)
 - c. SHALL contain exactly one [1..1] **observation**, where its type is *Destination Rhythm* (CONF:10188)
- 13. SHALL contain exactly one [1..1] **entryRelationship** such that it (CONF:11072)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10177)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10176)
 - c. SHALL contain exactly one [1..1] **observation**, where its type is *Arrest Rhythm* (CONF:10178)
- 14. SHALL contain exactly one [1..1] **entryRelationship** such that it (CONF:11377)
 - a. SHALL contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10151)
 - b. SHALL contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10149)
 - c. contains zero or more [0..*] **observation**, where its type is *Cardiac Arrest Timing*
- 15. SHALL contain exactly one [1..1] **entryRelationship** such that it (CONF:11332)
 - a. SHALL contain exactly one [1..1] **@typeCode**="COMP" (CONF:11333)
 - b. SHALL contain exactly one [1..1] **observation**, where its type is *Cardiac Arrest Outcome* (CONF:11334)

Cardiac Arrest example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.27"/>
  <code code="ASSERTION" displayName="ASSERTION"/>
  <effectiveTime/>
  <value xsi:type="CD" code="410429000" displayName="cardiac arrest"/>
  <informant typeCode="INF">
    <relatedEntity classCode="AGNT">
      <code/>
    </relatedEntity>
  </informant>
</observation>
```

```

</informant>
<entryRelationship typeCode="SUBJ" inversionInd="true">
  <observation classCode="SPCOBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.124"/>
    <code code="67503-3" displayName="Cardiac arrest cause NEMESIS"/>
    <value xsi:type="CD"/>
  </observation>
</entryRelationship>
<entryRelationship typeCode="SUBJ" inversionInd="true"/>
<entryRelationship typeCode="SUBJ" inversionInd="true"/>
<entryRelationship typeCode="SUBJ" inversionInd="true">
  <observation classCode="SPCOBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.128"/>
    <code code="67513-2" displayName="Return of spontaneous circulation
NEMESIS"/>
    <value xsi:type="CD"/>
  </observation>
</entryRelationship>
<entryRelationship typeCode="SUBJ" inversionInd="true">
  <observation classCode="SPCOBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.129"/>
    <code code="67519-9" displayName="Cardiac rhythm NEMESIS"/>
    <value xsi:type="CD"/>
  </observation>
</entryRelationship>
<entryRelationship typeCode="SUBJ" inversionInd="true">
  <observation classCode="SPCOBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.127"/>
    <code code="67512-4" displayName="First monitored rhythm NEMESIS"/>
    <value xsi:type="CD"/>
  </observation>
</entryRelationship>
<entryRelationship typeCode="SUBJ" inversionInd="true"/>
<entryRelationship typeCode="COMP">
  <observation classCode="SPCOBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.184"/>
    <code code="77152-7" displayName="Cardiac arrest event outcome"/>
    <value xsi:type="CD"/>
  </observation>
</entryRelationship>
</observation>

```

Cardiac Arrest Cause

[Observation: templateId 2.16.840.1.113883.17.3.10.1.124]

Kind of event or condition causing cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11518) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.124"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11246)
3. **SHALL** contain exactly one [1..1] **code/@code**="67503-3" *Cardiac arrest cause NEMESIS* (CodeSystem:) (CONF:10156)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet CardiacArrestCause 2.16.840.1.113883.17.3.11.10 **DYNAMIC** (CONF:10157)

NEMESIS Trace: EArrest.02

Cardiac Arrest Cause example

```

<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.124"/>
  <code code="67503-3" displayName="Cardiac arrest cause NEMESIS"/>
  <value xsi:type="CD"/>
</observation>

```

Cardiac Arrest Outcome

[Observation: templateId 2.16.840.1.113883.17.3.10.1.184]

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

| Contained By | Contains |
|--------------|--|
| | Abandoned Procedure Reason Observation |
| | Abdomen Assessment |
| | Airway Confirmation Observation |
| | Arrest Rhythm |
| | Back And Spine Assessment |
| | Body Temperature |
| | Cardiac Arrest Cause |
| | Cardiac Arrest Outcome |
| | Cardiac Arrest Timing |
| | Complaint Duration |
| | Complaint Organ System |
| | Complaint Type |
| | Destination Rhythm |
| | Diastolic Blood Pressure |
| | Dispatch Delay |
| | Dispatch Location Latitude |
| | Dispatch Location Longitude |
| | Dispatch Location Name |
| | Extremities Assessment |
| | Eye Assessment |
| | Face Assessment |
| | Head Assessment |
| | Heart Assessment |
| | Heart Rate |
| | Length Based Patient Body Weight Class |

| Contained By | Contains |
|--------------|---|
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11565) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.184"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11376)

3. **SHALL** contain exactly one [1..1] **code** (CONF:11350)/@**code**="77152-7" *Cardiac arrest event outcome* (CodeSystem:) (CONF:11351)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="CD" (CONF:11600), which **SHALL** be selected from ValueSet *CardiacArrestOutcome* 2.16.840.1.113883.17.3.11.101 **STATIC** (CONF:11352)

NEMESIS trace: eArrest.18 (end of arrest event)

Cardiac Arrest Outcome example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.184"/>
  <code code="77152-7" displayName="Cardiac arrest event outcome"/>
  <value xsi:type="CD"/>
</observation>
```

Cardiac Arrest Timing

[Observation: templateId 2.16.840.1.113883.17.3.10.1.123]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11517) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.123"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11245)
3. **SHALL** contain exactly one [1..1] **code**/@**code**="67502-5" *Cardiac arrest timing* (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="CD", which **SHALL** be selected from ValueSet *CardiacArrestTiming* 2.16.840.1.113883.17.3.11.91 **DYNAMIC** (CONF:10153)

NEMESIS Trace: EArrest.01

Cardiac Arrest Timing example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.123"/>
  <code code="67502-5" codeSystem="2.16.840.1.113883.6.1"
    displayName="Cardiac arrest timing"/>
  <value xsi:type="CD"/>
</observation>
```

Cardiac Rhythm

[Observation: templateId 2.16.840.1.113883.17.3.10.1.169]

Patient's cardiac rhythm classification

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11559) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.169"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11309)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10275)/@**code**="67519-9" *Cardiac rhythm NEMESIS* (CodeSystem:) (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** such that it (CONF:11127)
- a. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:11128)
 - a. **SHALL** contain exactly one [1..1] **playingDevice** such that it (CONF:11129)
 - a. **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)
- NEMESIS Trace: EVitals.04
- b. contain zero or one [0..1] **@classCode="DEV"**
 - c. contain zero or one [0..1] **@determinerCode="INSTANCE"**

Cardiac Rhythm example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.169"/>
  <code code="67519-9" displayName="Cardiac rhythm NEMESIS"/>
  <value xsi:type="CD"/>
  <methodCode/>
  <participant typeCode="WIT">
    <participantRole>
      <playingDevice>
        <code/>
      </playingDevice>
    </participantRole>
  </participant>
</observation>
```

Chest Assessment

[Observation: templateId null]

The assessment findings associated with the patient's chest.

| Contained By | Contains |
|--------------------------------------|---|
| <i>Physical Assessment Organizer</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **code** (CONF:11597)/@**code**="NewExam.25" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11596)
2. **MAY** contain zero or more [0..*] **value** with @**xsi:type**="CD" (CONF:11599), which **SHALL** be selected from ValueSet ChestFinding 2.16.840.1.113883.17.3.11.118 **STATIC** (CONF:11598)
NEMESIS Trace: eExam.25
3. **SHOULD** contain zero or more [0..*] **targetSiteCode**, which **SHALL** be selected from ValueSet ChestFindingLocation 2.16.840.1.113883.17.3.11.119 **STATIC**

Chest Assessment example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <code code="NewExam.25" codeSystem="2.16.840.1.113883.6.1"/>
</observation>
```

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** (CONF:11456) 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:) (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. **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"

7. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10771)

a. contain exactly one [1..1] **observation**, where its type is *Complaint Duration*

8. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10772)

a. contains at least one [1..*] **observation**, where its type is *Complaint Type*

9. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it (CONF:10775)

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

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

Complaint example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.63"/>
  <code code="10154-3" displayName="Chief complaint Narrative - Reported"/>
  <effectiveTime/>
  <targetSiteCode/>
</observation>
```

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** (CONF:11531) 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:) (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 Duration example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.139"/>
  <code code="67491-1" displayName="Duration of chief complaint NEMESIS"/>
  <value xsi:type="PQ"/>
</observation>
```

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** (CONF:11532) 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:) (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 Organ System example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.140"/>
  <code code="69468-7" displayName="Primary anatomic organ system of chief
  complaint NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Complaint Reported By Dispatch

[Observation: templateId 2.16.840.1.113883.17.3.10.1.74]

The complaint that dispatch reported to the responding unit

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11467) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.74"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11187)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10568)/**@code**="67570-2" *Chief complaint per dispatch Reported.dispatch* (CodeSystem:) (CONF:10569)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10571), which **SHALL** be selected from ValueSet *Dispatch Reason* 2.16.840.1.113883.17.3.11.49 **DYNAMIC** (CONF:10570)

NEMESIS Trace: EDispatch.01

Complaint Reported By Dispatch example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.74"/>
  <code code="67570-2" displayName="Chief complaint per dispatch
  Reported.dispatch"/>
  <value xsi:type="CD"/>
</observation>
```

Complaint Type

[Observation: templateId 2.16.840.1.113883.17.3.10.1.138]

Whether a complaint is a chief complaint

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11530) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.138"
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11266)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:10777)/**@code**="72114-2" *Complaint NEMESIS* (CodeSystem:) (CONF:10776)
 4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10778), which **SHALL** be selected from ValueSet Complaint Type 2.16.840.1.113883.17.3.11.94 **DYNAMIC** (CONF:11267)
- NEMESIS Trace: ESituation.03

Complaint Type example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.138"/>
  <code code="72114-2" displayName="Complaint NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Crew Disposition

[Observation: templateId 2.16.840.1.113883.17.3.10.1.198]

The crew disposition for this EMS event identifying which crew provided primary patient care or whether support services were required.

| Contained By | Contains |
|--------------------------------|---|
| <i>EMS Disposition Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |

| Contained By | Contains |
|--------------|---------------------------------|
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11588) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.198"
2. **SHALL** contain exactly one [1..1] **code/@code**="neweDisposition.29" *Crew Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11589)
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11591), which **SHALL** be selected from ValueSet *CrewDisposition* 2.16.840.1.113883.17.3.11.120 **STATIC** (CONF:11590)
NEMESIS Trace: eDisposition.29

Crew Disposition example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.198"/>
  <code code="neweDisposition.29" codeSystem="2.16.840.1.113883.6.1"
    displayName="Crew Disposition"/>
  <value xsi:type="CD"/>
</observation>
```

Current Medication

[SubstanceAdministration: templateId 2.16.840.1.113883.17.3.10.1.77]

A medication a patient is currently taking

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11469) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.77"
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** such that it (CONF:10235)
 - a. **SHALL** contain exactly one [1..1] **manufacturedProduct** such that it (CONF:10236)
 - a. **SHALL** contain exactly one [1..1] **manufacturedMaterial** such that it (CONF:10237)

- a. **SHALL** contain exactly one [1..1] **code** (CONF:11191), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm) (CONF:11190)

Current Medication example

```
<substanceAdministration classCode="SBADM" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.77"/>
  <consumable>
    <manufacturedProduct/>
  </consumable>
</substanceAdministration>
```

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** (CONF:11468) 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:) (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.

Currently On Medication example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.75"/>
  <code code="67791-4" displayName="Does the patient take any medications NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

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** (CONF:11489) 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** such that it (CONF:10583)
 - a. **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** such that it (CONF:10584)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Response Delay* (CONF:10593)
4. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10585)

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

Delay Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLIST">
  <templateId root="2.16.840.1.113883.17.3.10.1.95"/>
  <statusCode/ >
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.153"/>
      <code code="67480-4" displayName="Dispatch delay NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.154"/>
      <code code="67557-9" displayName="Response delay NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.155"/>
      <code code="67558-7" displayName="Scene delay NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.156"/>
      <code code="67559-5" displayName="Transport delay NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.157"/>
      <code code="67560-3" displayName="Turn-around delay NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </component>
</organizer>
```

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** (CONF:11521) 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 NEMSIS* (CodeSystem:) (CONF:10189)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:11599), which **SHALL** be selected from ValueSet *CardiacRhythmReading* 2.16.840.1.113883.17.3.11.16 **DYNAMIC** (CONF:10190)

NEMSIS Trace: EArrest.17 Cardiac Rhythm on Arrival at Destination

Destination Rhythm example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.129"/>
  <code code="67519-9" displayName="Cardiac rhythm NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

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> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |

| Contained By | Contains |
|--------------|--|
| | Transport Delay |
| | Transport Mode Qualifier |
| | Turnaround Delay |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11568) 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:) (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

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.186"/>
  <code code="77154-3" displayName="Hospital inpatient destination"/>
  <value xsi:type="CD"/>
</observation>
```

Diastolic Blood Pressure

[Observation: templateId 2.16.840.1.113883.17.3.10.1.144]

Patient's diastolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11534) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.144"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11272)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="8462-4" *Diastolic blood pressure* (CodeSystem:) (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* 2.16.840.1.113883.17.3.11.107 **STATIC** (CONF:11347)
NEMESIS Trace: eVitals.08 (method of blood pressure measurement)

Diastolic Blood Pressure example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.144"/>
```

```
<code code="8462-4" displayName="Diastolic blood pressure"/>
<value xsi:type="PQ"/>
<methodCode/>
</observation>
```

Disaster Type

[Observation: templateId 2.16.840.1.113883.17.3.10.1.59]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11451) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.59"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11166)
3. **SHALL** contain exactly one [1..1] **code/@code**="69463-8" *Suspected intentional or unintentional disaster NEMSIS* (CodeSystem:) (CONF:10132)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet DisasterType 2.16.840.1.113883.17.3.11.9 **DYNAMIC** (CONF:10133)

NEMSIS Trace: EOther.07

Disaster Type example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.59"/>
  <code code="69463-8" displayName="Suspected intentional or unintentional
  disaster NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Dispatch Delay

[Observation: templateId 2.16.840.1.113883.17.3.10.1.153]

Causes of delay to the dispatch process

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11543) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.153"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11286)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10590)/**@code**="67480-4" *Dispatch delay NEMSIS* (CodeSystem:) (CONF:10589)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10592), which **SHALL** be selected from ValueSet DispatchDelayType 2.16.840.1.113883.17.3.11.50 **DYNAMIC** (CONF:10591)

NEMSIS Trace: EResponse.08

Dispatch Delay example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.153"/>
  <code code="67480-4" displayName="Dispatch delay NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Dispatch Location Latitude

[Observation: templateId 2.16.840.1.113883.17.3.10.1.151]

Latitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11541) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.151"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11284)
3. **SHALL** contain exactly one [1..1] **code/@code**="52002-3" *Ambulance transport, Destination site latitude coordinate* (CodeSystem:) (CONF:10620)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10621)

NEMESIS Trace: EResponse.17 UCUM units SHOULD be "deg". This may require conversion from a parsed "degree + minutes" representation to a decimal representation.

Dispatch Location Latitude example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.151"/>
  <code code="52002-3" displayName="Ambulance transport, Destination site
latitude coordinate"/>
  <value xsi:type="PQ"/>
</observation>
```

Dispatch Location Longitude

[Observation: templateId 2.16.840.1.113883.17.3.10.1.152]

Longitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11542) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.152"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11285)
3. **SHALL** contain exactly one [1..1] **code/@code**="52003-1" *Ambulance transport, Destination site longitude coordinate* (CodeSystem:) (CONF:10623)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10624)

NEMESIS 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 example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.152"/>
  <code code="52003-1" displayName="Ambulance transport, Destination site
longitude coordinate"/>
  <value xsi:type="PQ"/>
</observation>
```

Dispatch Location Name

[Observation: templateId 2.16.840.1.113883.17.3.10.1.150]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11540) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.150"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11283)
3. **SHALL** contain exactly one [1..1] **code/@code**="69466-1" *Vehicle location Vehicle NEMSIS --at dispatch* (CodeSystem:) (CONF:10617)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="ST" (CONF:10618)

NEMSIS Trace: EResponse.16

Dispatch Location Name example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.150"/>
  <code code="69466-1" displayName="Vehicle location Vehicle NEMSIS --at
dispatch"/>
  <value xsi:type="ST"/>
</observation>
```

Dispatch Location Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.96]

Information about the location of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11490) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.96"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:10613)
 - a. **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** such that it (CONF:10614)
 - a. **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** such that it (CONF:10615)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is [Dispatch Location Longitude](#) (CONF:10622)

Dispatch Location Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.96"/>
  <statusCode/>
</organizer>
```


Dispatch Notified Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.46]

The time the dispatching organization was notified of an emergency

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11438) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.46"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10866)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10868)

NEMSIS Trace: ETimes.02

Dispatch Notified Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.46"/>
  <code code="69470-3" displayName="Dispatch was notified by the 911 call
taker [Date and time] Facility NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

Drug Allergy

[Observation: templateId 2.16.840.1.113883.17.3.10.1.48]

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 2.16.840.1.113883.3.88.12.3221.6.2. In this case, the value should be 416098002 (Drug allergy (disorder)), System = SNOMED CT, 2.16.840.1.113883.6.96. The drug, to be placed in the participating product, is encoded in RxNorm.

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11440) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.48"
2. contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="ASSERTION" *ASSERTION* (CodeSystem: 2.16.840.1.113883.5.4 ActCode) (CONF:11340)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD"/ **@code**="416098002" *Drug allergy (disorder)* (CodeSystem:) (CONF:11341)
5. **SHALL** contain exactly one [1..1] **participant** such that it (CONF:11126)
 - a. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:10208)
 - a. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:10209)
 - a. contain exactly one [1..1] **code**

NEMSIS Trace: EHistory.06

Drug Allergy example

```
<observation classCode="SPCOBS" moodCode="EVN">
```

```

<templateId root="2.16.840.1.113883.17.3.10.1.48"/>
<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
displayName="ASSERTION"/>
<value xsi:type="CD" code="416098002" displayName="Drug allergy
(disorder)"/>
<participant typeCode="WIT">
  <participantRole/>
</participant>
</observation>

```

Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.183]

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

| Contained By | Contains |
|--|---|
| <i>EMS Allergies And Adverse Reactions Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Drug Allergy</i> |
| | <i>Existence Of Drug Allergy Observation</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11564) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.183"
2. **MAY** contain [0..*] **component** such that it (CONF:11323)
 - a. Conforms to *Drug Allergy* (templateId: 2.16.840.1.113883.17.3.10.1.48)
3. **SHALL** contain [1..1] **component** such that it (CONF:11324)
 - a. Conforms to *Existence Of Drug Allergy Observation* (templateId: 2.16.840.1.113883.17.3.10.1.102)

Drug Allergy Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.183"/>
  <statusCode/>
</organizer>
```

Drug Use Indication

[Observation: templateId 2.16.840.1.113883.17.3.10.1.71]

Evidence that a patient has been using alcohol or illicit drugs

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11464) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.71"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11179)
3. **SHALL** contain exactly one [1..1] **code/@code**="67669-2" *Alcohol - drug use NEMESIS* (CodeSystem:) (CONF:10250)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *AlcoholDrugUseIndicator* 2.16.840.1.113883.17.3.11.18 **DYNAMIC** (CONF:10251)

NEMESIS Trace: EHistory.17, proper values

Drug Use Indication example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.71"/>
  <code code="67669-2" displayName="Alcohol - drug use NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Emergency Medical Dispatch Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.73]

Whether and how emergency medical dispatch was performed

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11466) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.73"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11186)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10564)/**@code**="67488-7" *Emergency medical dispatch performed NEMESIS* (CodeSystem:) (CONF:10563)

4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:10566), which **SHALL** be selected from ValueSet EMDPerformed 2.16.840.1.113883.17.3.11.48 **DYNAMIC** (CONF:10565)
NEMSIS Trace: EDispatch.02

Emergency Medical Dispatch Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.73"/>
  <code code="67488-7" displayName="Emergency medical dispatch performed NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Existence Of Drug Allergy Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.102]

Indicator of whether patient has any allergies or sensitivities to drugs

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11498) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.102"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11213)
3. **SHALL** contain exactly one [1..1] **code/@code="67794-8"** *Does the patient have any medication allergies NEMSIS* (CodeSystem:) (CONF:10203)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="BL"** (CONF:10204)

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

Existence Of Drug Allergy Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.102"/>
  <code code="67794-8" displayName="Does the patient have any medication allergies NEMSIS"/>
  <value xsi:type="BL"/>
</observation>
```

Existence Of Drug Use Indication

[Observation: templateId 2.16.840.1.113883.17.3.10.1.70]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11463) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.70"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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 NEMSIS* (CodeSystem:) (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 Drug Use Indication example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.70"/>
  <code code="69757-3" displayName="Indications of drug or alcohol use by
the patient NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Existence Of History Of Condition Or Surgery

[Observation: templateId 2.16.840.1.113883.17.3.10.1.60]

Indicator of whether patient has a history of significant medical conditions or procedures

| Contained By | Contains |
|---|---|
| <i>EMS Past Medical History Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. SHALL contain exactly one [1..1] **templateId** (CONF:11452) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.60"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11167)
3. **SHALL** contain exactly one [1..1] **code/@code**="67793-0" *Has the patient had any significant medical conditions NEMESIS* (CodeSystem:) (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 History Of Condition Or Surgery example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.60"/>
  <code code="67793-0" displayName="Has the patient had any significant
  medical conditions NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Existence Of Non Drug Allergy

[Observation: templateId 2.16.840.1.113883.17.3.10.1.103]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11499) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.103"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11214)
3. **SHALL** contain exactly one [1..1] **code/@code**="69747-4" *Does the patient have any environmental allergies NEMESIS* (CodeSystem:) (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.

Existence Of Non Drug Allergy example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.103"/>
  <code code="69747-4" displayName="Does the patient have any environmental
  allergies NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

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** (CONF:11514) 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 NEMSIS* (CodeSystem:) (CONF:10400)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11241)
NEMSIS 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)
NEMSIS 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)
NEMSIS Trace: EExam.15

Extremities Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.120"/>
  <code code="67533-0" displayName="Physical findings of Extremity NEMSIS"/>
  <effectiveTime/>
</observation>
```

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** (CONF:11515) 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 NEMSIS* (CodeSystem:) (CONF:10404)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11243)
NEMSIS Trace: EExam.03
5. **SHALL** contain at least one [1..*] **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)
NEMSIS Trace: EExam.18
6. **MAY** 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)
NEMSIS Trace: EExam.17

Eye Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.121"/>
  <code code="67534-8" displayName="Physical findings of Eye NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

```
</observation>
```

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** (CONF:11507) 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 NEMSIS* (CodeSystem:) (CONF:10375)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11225)

NEMSIS 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)

NEMSIS Trace: EExam.06

Face Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.112"/>
  <code code="67526-4" displayName="Physical findings of Face NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11479) 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 NEMSIS* (CodeSystem:) (CONF:10742)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10743)

NEMSIS Trace: EScene.01

First Unit Indicator example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.84"/>
  <code code="67481-2" displayName="First EMS unit on scene NEMSIS"/>
  <value xsi:type="BL"/>
</observation>
```

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** (CONF:11560) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.170"
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11313)

NEMESIS Trace: EVitals.01
3. **SHALL** contain [1..1] **component** such that it (CONF:10313)
 - a. Conforms to *Glasgow Eye* (templateId: 2.16.840.1.113883.17.3.10.1.160)
4. **SHALL** contain [1..1] **component** such that it (CONF:10314)
 - a. Conforms to *Glasgow Motor* (templateId: 2.16.840.1.113883.17.3.10.1.192)
5. **MAY** contain [0..*] **component** such that it (CONF:10315)
 - a. Conforms to *Glasgow Qualifier* (templateId: 2.16.840.1.113883.17.3.10.1.159)
6. **SHOULD** contain [0..1] **component** such that it (CONF:10316)
 - a. Conforms to *Glasgow Total* (templateId: 2.16.840.1.113883.17.3.10.1.158)
7. **SHALL** contain [1..1] **component** such that it (CONF:10317)
 - a. Conforms to *Glasgow Verbal* (templateId: 2.16.840.1.113883.17.3.10.1.162)

Glasgow Coma Score Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLIST">
  <templateId root="2.16.840.1.113883.17.3.10.1.170"/>
  <statusCode/>
</organizer>
```

Glasgow Eye

[Observation: templateId 2.16.840.1.113883.17.3.10.1.160]

Glasgow Coma eye score

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11550) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.160"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11294)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10325)/**@code**="9267-6" *Glasgow coma score. eye opening* (CodeSystem:) (CONF:10324)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10326)

NEMESIS Trace: EVitals.19

Glasgow Eye example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.160"/>
  <code code="9267-6" displayName="Glasgow coma score. eye opening"/>
  <value xsi:type="INT"/>
</observation>
```

Glasgow Motor

[Observation: templateId 2.16.840.1.113883.17.3.10.1.192]

Glasgow Coma motor score

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11551) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.192"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11295)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10328)/**@code**="9268-4" *Glasgow coma score.motor* (CodeSystem:) (CONF:10329)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10330)

NEMESIS Trace: EVitals. 21

Glasgow Motor example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.192"/>
  <code code="9268-4" displayName="Glasgow coma score.motor"/>
  <value xsi:type="INT"/>
</observation>
```

Glasgow Qualifier

[Observation: templateId 2.16.840.1.113883.17.3.10.1.159]

Qualifier for Glasgow Coma score

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11549) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.159"
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:) (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 Qualifier example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.159"/>
  <code code="55285-1" displayName="Glasgow coma score special
  circumstances"/>
</observation>
```

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** (CONF:11548) 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:) (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 Total example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.158"/>
  <code code="9269-2" displayName="Glasgow coma score.total"/>
  <value xsi:type="INT"/>
</observation>
```

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** (CONF:11552) 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:) (CONF:10333)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10334)
NEMESIS Trace: EVitals.20

Glasgow Verbal example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.162"/>
  <code code="9270-0" displayName="Glasgow coma score.verbal"/>
  <value xsi:type="INT"/>
</observation>
```

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** (CONF:11508) 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:) (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

Head Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.113"/>
  <code code="67525-6" displayName="Physical findings of Head NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11510) 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:) (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 Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.116"/>
  <code code="67529-8" displayName="Physical findings of Heart NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11535) 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:) (CONF:10284)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11275)
NEMESIS Trace: EVitals.01
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10286)
NEMESIS Trace: EVitals.10 UCUM units SHOULD be "/min".

Heart Rate example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.145"/>
  <code code="8867-4" displayName="Heart rate"/>
  <value xsi:type="PQ"/>
</observation>
```

Height Of Fall

[Observation: templateId 2.16.840.1.113883.17.3.10.1.58]

Distance patient fell, if injury is fall-related

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11450) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.58"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11164)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67501-7" *Height of fall NEMESIS* (CodeSystem:) (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')

Height Of Fall example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.58"/>
  <code code="67501-7" displayName="Height of fall NEMESIS"/>
  <value xsi:type="PQ"/>
</observation>
```

Initial Patient Acuity

[Observation: templateId 2.16.840.1.113883.17.3.10.1.69]

Patient condition indicating urgency of treatment on arrival at patient

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11462) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.69"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11176)

3. **SHALL** contain exactly one [1..1] **code** (CONF:10816)/@code="67493-7" *Initial patient acuity NEMSIS* (CodeSystem:) (CONF:10817)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:10818), which **SHALL** be selected from ValueSet *InitialPatientCondition* 2.16.840.1.113883.17.3.11.59 **DYNAMIC** (CONF:10819)

NEMSIS Trace: ESituation.13

Initial Patient Acuity example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.69"/>
  <code code="67493-7" displayName="Initial patient acuity NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Injury Cause Category

[Observation: templateId 2.16.840.1.113883.17.3.10.1.50]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11442) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.50"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11155)
3. **SHALL** contain exactly one [1..1] **code**/@code="69543-7" *Cause of injury NEMSIS* (CodeSystem:) (CONF:10106)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:10108)

NEMSIS Trace: EInjury.01 Causes are in ICD-10 chapter XX

Injury Cause Category example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.50"/>
  <code code="69543-7" displayName="Cause of injury NEMSIS"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>
```

Injury Mechanism

[Observation: templateId 2.16.840.1.113883.17.3.10.1.51]

General classification of physical force causing injury

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11443) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.17.3.10.1.51"
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11156)
3. **SHALL** contain exactly one [1..1] **code**/@code="67494-5" *General mechanism of the forces which caused the injury NEMSIS* (CodeSystem:) (CONF:10109)
4. **SHALL** contain at least one [1..*] **value** with @xsi:type="CD", which **SHALL** be selected from ValueSet *MechanismOfInjury* 2.16.840.1.113883.17.3.11.1 **DYNAMIC** (CONF:10110)

NEMESIS Trace: EInjury.02

Injury Mechanism example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.51"/>
  <code code="67494-5" displayName="General mechanism of the forces which
    caused the injury NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11445) 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:) (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

Injury Risk Factor example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.53"/>
  <code code="67496-0" displayName="Other injury risk factors NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11475) 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:) (CONF:10424)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10425)

NEMESIS Trace: EHistory.19

Last Oral Intake example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.80"/>
  <code code="67517-3" displayName="Last oral intake [Date and time]
  NEMESIS"/>
  <value xsi:type="TS"/>
</observation>
```

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** (CONF:11506) 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:) (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.

Length Based Patient Body Weight Class example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.110"/>
  <code code="67670-0" displayName="Length-based tape measure category
  NEMESIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

Level Of Responsiveness

[Observation: templateId 2.16.840.1.113883.17.3.10.1.165]

Patient's responsiveness

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11555) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.165"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11301)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10303)/**@code**="67775-7" *Level of responsiveness NEMESIS* (CodeSystem:) (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* 2.16.840.1.113883.17.3.11.21 **DYNAMIC** (CONF:10304)

NEMESIS Trace: EVitals.26

Level Of Responsiveness example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.165"/>
  <code code="67775-7" displayName="Level of responsiveness NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Level Of Service Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.92]

CMS classification of service level for billing purposes

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11486) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.92"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10091)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:10092), which **SHALL** be selected from ValueSet *EMSLevelOfService* 2.16.840.1.113883.17.3.11.70 **DYNAMIC** (CONF:10093)

NEMESIS Trace: EPayment.50

Level Of Service Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.92"/>
  <code code="69464-6" displayName="Centers for medicare - medicaid, CMS,
  service level NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Location Type Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.88]

Kind of location where the incident occurred

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11482) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.88"**
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.

Location Type Observation example

```

<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.88"/>
  <code code="74496-1" displayName="Injury location ICD code"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>

```

Lung Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.194]

| Contained By | Contains |
|--------------------------------------|---|
| <i>Physical Assessment Organizer</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11572) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.194"
2. **SHALL** contain exactly one [1..1] **code/@code**="NewExam.23" *Lung Assessment Finding* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11573)

3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:11575), which **SHALL** be selected from ValueSet LungFinding 2.16.840.1.113883.17.3.11.116 **STATIC** (CONF:11574)

NEMESIS Trace: eExam.23

4. **SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:11577), which **SHALL** be selected from ValueSet LungFindingLocation 2.16.840.1.113883.17.3.11.117 **STATIC** (CONF:11576)

NEMESIS Trace: eExam.22

Lung Assessment example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.194"/>
  <code code="NewExam.23" codeSystem="2.16.840.1.113883.6.1"
    displayName="Lung Assessment Finding"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11481) 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:) (CONF:11201)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="BL"** (CONF:10754)

NEMESIS Trace: EScene.07

Mass Casualty Indicator example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.87"/>
  <code code="67490-3" displayName="Mass casualty incident NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Medical/Surgical History

[Observation: templateId 2.16.840.1.113883.17.3.10.1.61]

Medical conditions the patient has or has had

| Contained By | Contains |
|---|---|
| <i>EMS Past Medical History Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11453) such that it

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.61"

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11168)

3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:11455)

For a categorical "none reported," use the Existence Of History Of Condition or Surgery. For pertinent negatives for specific conditions, use this negation indicator with the relevant value.

4. **SHALL** contain exactly one [1..1] **code** (CONF:10070)/**@code**="68487-8" *Medical - surgical history - ICD-9 and 10 codes* (CodeSystem:) (CONF:10069)

5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10072), which **SHALL** be selected from ValueSet ICD-10 CM AND PCS 2.16.840.1.113883.17.3.11.121 **STATIC** (CONF:11454)

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.

Medical/Surgical History example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.61"/>
  <code code="68487-8" displayName="Medical - surgical history - ICD-9 and
  10 codes"/>
  <value xsi:type="CD"/>
</observation>
```


Medication Administered

[SubstanceAdministration: templateId 2.16.840.1.113883.17.3.10.1.72]

Medications administered in response to the emergency--usually by the EMS crew

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11465) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.72"
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:10445)
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:10448)

NEMESIS Trace: EMedications.03 negative action values If a substance is recorded as not given, it shall be recorded with a negationInd =True, and with a MedicationNotAdministeredReasonObservation (2.16.840.1.113883.17.3.10.1.105)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10447)

NEMESIS Trace: EMedications.01
5. **MAY** contain zero or one [0..1] **routeCode** (CONF:10450), which **SHALL** be selected from ValueSet MedicationAdministrationRoute 2.16.840.1.113883.17.3.11.43 **DYNAMIC** (CONF:10449)

NEMESIS Trace: EMedications.04 See appendix for mapping NEMESIS values to FDA values and for postcoordination of device information.
6. **MAY** contain zero or one [0..1] **approachSiteCode**="15562006" (CONF:11180), which **SHALL** be selected from ValueSet MedicationAdministrationSite 2.16.840.1.113883.17.3.11.109 **STATIC** (CONF:11387)

Two NEMESIS route (eMedications.04) values imply sites in addition to routes: "nasotracheal tube" and "tracheostomy"
7. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:10446)

NEMESIS Trace: EMedications.05, 06 Note: rate values should be recorded in rateQuantity, not doseQuantity
8. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:7517)

NEMESIS Trace: EMedications.05, 06 Note: rate values should be recorded in rateQuantity, not doseQuantity
9. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10451)

This observation is required if negationInd = True.

 - a. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10458)
 - b. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:10460)/**@code**="RSON" Reason (CodeSystem:) (CONF:10459)
 - c. **SHALL** contain exactly one [1..1] **observation**, where its type is *Medication Not Administered Reason Observation* (CONF:10461)
10. **SHALL** contain exactly one [1..1] **consumable** such that it (CONF:10452)
 - a. **SHALL** contain exactly one [1..1] **manufacturedProduct** such that it (CONF:10465)
 - a. **MAY** contain zero or more [0..*] **id** (CONF:7410, R2.0=CONF:1098-7410)

uniquely represents a particular kind of product
 - b. **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CONF:7408, R2.0=CONF:1098-7408)
 - c. **MAY** contain [0..1] **manufacturerOrganization** such that it (CONF:7416, R2.0=CONF:1098-7416)
 - a. Conforms to Organization from CDA
 - d. **SHALL** contain exactly one [1..1] **manufacturedMaterial** such that it (CONF:7411)

- a. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet Medication Clinical Drug Name Value Set 2.16.840.1.113883.3.88.12.80.17 **DYNAMIC** (CONF:7412)
- b. **code** **SHOULD** contain zero or one [0..1] **originalText**
- c. **originalText**, if present, **SHOULD** contain zero or one [0..1] **reference**
- d. **reference**, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:15987)
- e. **reference/@value** **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1)
- f. **code** **MAY** contain zero or more [0..*] **translation**
- e. **SHALL** contain exactly one [1..1] **manufacturedMaterial** such that it (CONF:10466)
 - a. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm) (CONF:10467)

NEMESIS Trace: EMedications.03

Note: all of RxNorm is legal in this field, but NEMESIS provides a selected list at <http://www.nemesis.org/v3/resources.html>

- 11. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10453)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Medication Response Observation* (CONF:10468)
- 12. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:10454)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Medication Complication Observation* (CONF:10472)
- 13. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10455)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Medication Prior Administration Observation* (CONF:10477)

NEMESIS Trace: EMedications.02

- 14. **MAY** contain zero or more [0..*] **performer** such that it (CONF:10456)

This participation is required if the medication is administered by the crew; i.e., if EMSMedicationPriorAdministrationObservation is FALSE.

- a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:10481)
 - a. **SHALL** contain exactly one [1..1] **id** (CONF:10484)

NEMESIS Trace: EMedications.09

- b. **SHALL** contain exactly one [1..1] **code** (CONF:10482), which **SHALL** be selected from ValueSet ProviderRole 2.16.840.1.113883.17.3.11.46 **DYNAMIC** (CONF:10483)

NEMESIS Trace: EMedications.10

- 15. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10457)

This relationship is required if the medication is administered by the crew; i.e., if EMSMedicationPriorAdministrationObservation is FALSE.

- a. **SHALL** contain exactly one [1..1] **act** such that it (CONF:10485)
 - a. **SHALL** contain exactly one [1..1] **@classCode** (CONF:10486)/**@code**="INFRM" (CodeSystem:) (CONF:10487)
 - b. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet MedicationAuthorizationType 2.16.840.1.113883.17.3.11.47 **DYNAMIC** (CONF:10488)

NEMESIS Trace: EMedications.11

- 16. **MAY** contain zero or one [0..1] **participant** such that it (CONF:11074)

- a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** (CONF:11182)
- b. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:11075)
 - a. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CONF:11183)
 - b. **SHALL** contain exactly one [1..1] **playingDevice** such that it (CONF:11076)
 - a. **SHALL** contain exactly one [1..1] **code** (CONF:11184), which **SHALL** be selected from ValueSet EMSMedicationAdministrationDevice 2.16.840.1.113883.17.3.11.108 **DYNAMIC** (CONF:11381)

For NEMESIS route codes that imply devices (eHistory.15 and eMedications.04)

Medication Administered example

```
<substanceAdministration classCode="SBADM" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.72"/>
  <effectiveTime/>
  <consumable>
    <manufacturedProduct/>
  </consumable>
  <entryRelationship typeCode="XCRPT">
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.106"/>
      <code code="67540-5" displayName="Response to medication NEMESIS"/>
      <value xsi:type="CD"/>
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="XCRPT">
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.108"/>
      <code code="67539-7" displayName="Medication administered prior to
this unit's EMS care NEMESIS"/>
      <value xsi:type="BL"/>
    </observation>
  </entryRelationship>
</substanceAdministration>
```

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** (CONF:11503) 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:) (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 Complication Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
```

```
<templateId root="2.16.840.1.113883.17.3.10.1.107"/>
<code code="67541-3" displayName="Medication complication NEMESIS"/>
<value xsi:type="CD"/>
</observation>
```

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** (CONF:11501) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.105"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11216)
3. **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *Assertion* (CodeSystem:) (CONF:10462)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10463), which **SHALL** be selected from ValueSet MedicationNotGivenReason 2.16.840.1.113883.17.3.11.92 **DYNAMIC** (CONF:10464)

EMedications.03

Medication Not Administered Reason Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.105"/>
  <code code="ASSERTION" displayName="Assertion"/>
  <value xsi:type="CD"/>
</observation>
```

Medication Prior Administration Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.108]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11504) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.108"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10479)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10480)

NEMESIS Trace: EMedications.02

Medication Prior Administration Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.108"/>
  <code code="67539-7" displayName="Medication administered prior to this
unit's EMS care NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Medication Response Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.106]

Whether the patient's condition improved after medication administration

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11502) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.106"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11217)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10469)/**@code**="67540-5" *Response to medication NEMSIS* (CodeSystem:) (CONF:10470)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11384), which **SHALL** be selected from ValueSet *ChangeInPatientStatus* 2.16.840.1.113883.17.3.11.78 **DYNAMIC** (CONF:10471)

NEMSIS Trace: EMedications.07

Medication Response Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.106"/>
  <code code="67540-5" displayName="Response to medication NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Mental Status Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.122]

Qualitative assessment of condition of patient's mental status

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11516) 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. **SHALL** contain exactly one [1..1] **code** (CONF:10410)/**@code**="67535-5" *Mental status assessment NEMSIS* (CodeSystem:) (CONF:10411)
4. contain exactly one [1..1] **effectiveTime**

NEMSIS 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)

NEMSIS Trace: EExam.19

Mental Status Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.122"/>
  <code code="67535-5" displayName="Mental status assessment NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11509) 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:) (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

Neck Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.114"/>
  <code code="67527-2" displayName="Physical findings of Neck NEMESIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11533) 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:) (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

Neurological Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.141"/>
  <code code="67536-3" displayName="Neurological assessment Nervous system NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Non Drug Allergy

[Observation: templateId 2.16.840.1.113883.17.3.10.1.104]

Patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11500) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.104"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11215)
3. **SHALL** contain exactly one [1..1] **code/@code**="79151-7" *Known allergies to food or environmental agents Narrative NEMESIS* (CodeSystem:) (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 2.16.840.1.113883.17.3.11.83 **DYNAMIC** (CONF:10217)

NEMESIS Trace: EHistory.07

Non Drug Allergy example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.104"/>
  <code code="79151-7" displayName="Known allergies to food or environmental agents Narrative NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Non Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.49]

Information regarding patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11441) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.49"
2. **SHALL** contain [1..1] **component** such that it (CONF:10212)
 - a. Conforms to [Existence Of Non Drug Allergy](#) (templateId: 2.16.840.1.113883.17.3.10.1.103)
3. **MAY** contain [0..*] **component** such that it (CONF:10213)
 - a. Conforms to [Non Drug Allergy](#) (templateId: 2.16.840.1.113883.17.3.10.1.104)

Non Drug Allergy Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.49"/>
  <statusCode/>
</organizer>
```

Number Of Patients Transported Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.31]

The number of patients transported by this EMS crew and unit

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11423) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.31"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11136)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10665)/**@code**="67547-0" *Patients transported in EMS unit [#]* NEMESIS (CodeSystem:) (CONF:10664)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10666)
NEMESIS Trace: eDisposition.11

Number Of Patients Transported Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.31"/>
  <code code="67547-0" displayName="Patients transported in EMS unit [#] NEMESIS"/>
  <value xsi:type="INT"/>
</observation>
```

Other Symptoms

[Observation: templateId 2.16.840.1.113883.17.3.10.1.67]

Symptoms other than the primary symptom

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11460) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.67"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11174)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10806)/**@code**="67776-5" *Other symptoms NEMESIS* (CodeSystem:) (CONF:10807)
4. **MAY** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:10808), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:10809)
NEMESIS Trace: ESituation.10

Other Symptoms example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.67"/>
  <code code="67776-5" displayName="Other symptoms NEMESIS"/>
</observation>
```

Oxygen Saturation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.177]

Measurement of the patient's arterial blood oxygen saturation

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11538) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.177"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11281)

3. **SHALL** contain exactly one [1..1] **code/@code="2708-6"** *Oxygen saturation in Arterial blood* (CodeSystem:) (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 "%".

Oxygen Saturation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.177"/>
  <code code="2708-6" displayName="Oxygen saturation in Arterial blood"/>
  <value xsi:type="PQ"/>
</observation>
```

Pain Score

[Observation: templateId 2.16.840.1.113883.17.3.10.1.164]

Assessment of the patient's level of pain

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11554) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.164"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11299)
3. **SHALL** contain exactly one [1..1] **code/@code="56840-2"** *Pain severity verbal numeric scale* (CodeSystem:) (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.

Pain Score example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.164"/>
  <code code="56840-2" displayName="Pain severity verbal numeric scale"/>
  <value xsi:type="INT"/>
</observation>
```

Patient Age

[Observation: templateId 2.16.840.1.113883.17.3.10.1.81]

The age of the patient

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11476) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.81"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11194)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10427)/**@code="30525-0"** *Age* (CodeSystem:) (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 Age example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.81"/>
  <code code="30525-0" displayName="Age"/>
  <value xsi:type="PQ"/>
</observation>
```

Patient Arrived At Destination Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.44]

The time the EMS crew delivered the patient to the destination

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11436) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.44"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10858)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="TS"** (CONF:10860)

NEMESIS Trace: ETimes.11

Patient Arrived At Destination Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.44"/>
  <code code="69476-0" displayName="Responding unit arrived with the patient
  at the destination or transfer point [Date and time] Vehicle NEMESIS"/>
  <value xsi:type="TS"/>
</observation>
```

Patient Body Weight

[Observation: templateId 2.16.840.1.113883.17.3.10.1.178]

Patient's body weight

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11505) such that it
 - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.17.3.10.1.178"**
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11220)
- NEMESIS Trace: EExam.03
3. **SHALL** contain exactly one [1..1] **code/@code="8335-2"** *Body weight Estimated* (CodeSystem:) (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 Body Weight example

```

<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.178"/>
  <code code="8335-2" displayName="Body weight Estimated"/>
  <effectiveTime/>
  <value xsi:type="PQ"/>
</observation>

```

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> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11429) 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:) (CONF:10693)
4. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:10695), which **SHALL** be selected from ValueSet InitialPatientCondition 2.16.840.1.113883.17.3.11.59 **DYNAMIC** (CONF:10696)

NEMESIS Trace: EDisposition.19

Patient Condition At Destination Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.37"/>
  <code code="77941-3" displayName="Final patient acuity NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Patient Engagement

[Observation: templateId 2.16.840.1.113883.17.3.10.1.197]

The patient disposition for an EMS event identifying whether a patient was evaluated and care or services were provided.

| Contained By | Contains |
|--------------------------------|---|
| <i>EMS Disposition Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |

| Contained By | Contains |
|--------------|---------------------------------|
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11583) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.197"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11585)/**@code**="neweDisposition.28" *Patient Engagement* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11584)
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11587), which **SHALL** be selected from ValueSet *PatientEngagement* 2.16.840.1.113883.17.3.11.113 **STATIC** (CONF:11586)
NEMESIS Trace: eDisposition.28

Patient Engagement example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.197"/>
  <code code="neweDisposition.28" codeSystem="2.16.840.1.113883.6.1"
    displayName="Patient Engagement"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11447) 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:) (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 Location In Vehicle example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.55"/>
  <code code="67498-6" displayName="Location of patient in vehicle NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11474) 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:) (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

Patient Pregnancy example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.79"/>
  <code code="67471-3" displayName="Pregnancy"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11512) 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:) (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

Pelvic And Genitourinary Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.118"/>
  <code code="67531-4" displayName="Physical findings of Pelvis
+Genitourinary NEMESIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

Physical Assessment Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.78]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11470) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.78"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:11103)
 - a. contains zero or more [0..*] **observation**, where its type is *Skin Assessment*
3. **MAY** contain zero or one [0..1] **component** such that it (CONF:11105)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Head Assessment* (CONF:11104)
4. **MAY** contain zero or one [0..1] **component** such that it (CONF:11342)
 - a. contain exactly one [1..1] **observation**, where its type is *Neurological Assessment*
5. **MAY** contain zero or one [0..1] **component** such that it (CONF:11107)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Face Assessment* (CONF:11106)
6. **MAY** contain zero or one [0..1] **component** such that it (CONF:11109)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Neck Assessment* (CONF:11108)
7. **MAY** contain zero or one [0..1] **component** such that it (CONF:11113)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Heart Assessment* (CONF:11112)
8. **MAY** contain zero or more [0..*] **component** such that it (CONF:11115)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Abdomen Assessment* (CONF:11114)
9. **MAY** contain zero or one [0..1] **component** such that it (CONF:11117)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Pelvic And Genitourinary Assessment* (CONF:11116)
10. **MAY** contain zero or more [0..*] **component** such that it (CONF:11119)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Back And Spine Assessment* (CONF:11118)
11. **MAY** contain zero or more [0..*] **component** such that it (CONF:11121)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Extremities Assessment* (CONF:11120)
12. **MAY** contain zero or more [0..*] **component** such that it (CONF:11123)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Eye Assessment* (CONF:11122)
13. **MAY** contain zero or one [0..1] **component** such that it (CONF:11125)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Mental Status Assessment* (CONF:11124)
14. **MAY** contain [0..*] **component** such that it (CONF:11471)
 - a. Conforms to *Lung Assessment* (templateId: 2.16.840.1.113883.17.3.10.1.194)
15. **MAY** contain [0..*] **component** such that it (CONF:11472)
 - a. Conforms to *Chest Assessment*

Physical Assessment Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.78"/>
  <statusCode/>
</organizer>
```

Possible Injury

[Observation: templateId 2.16.840.1.113883.17.3.10.1.64]

Indicator of whether a patient may have an injury

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11457) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.64"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11171)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10792)/**@code**="69467-9" *Possible injury NEMSIS* (CodeSystem:) (CONF:10793)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10794)
NEMSIS Trace: ESituation.02

Possible Injury example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.64"/>
  <code code="69467-9" displayName="Possible injury NEMSIS"/>
  <value xsi:type="BL"/>
</observation>
```

Prearrival Activation Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.36]

Indication of whether destination was activated prior to patient arrival

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11427) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.36"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11141)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10689)/**@code**="69462-0" *Activation of the destination healthcare facility team NEMSIS* (CodeSystem:) (CONF:10688)
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10691)
NEMSIS Trace: EDisposition.25 Required if value is TRUE
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10690), which **SHALL** be selected from ValueSet *DestinationPrearrivalActivation* 2.16.840.1.113883.17.3.11.87 **DYNAMIC** (CONF:11428)
NEMSIS Trace: EDisposition.24

Prearrival Activation Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.36"/>
  <code code="69462-0" displayName="Activation of the destination healthcare facility team NEMSIS"/>
  <effectiveTime/>
  <value xsi:type="CD"/>
</observation>
```

Primary Destination Hospital Capability

[Observation: templateId 2.16.840.1.113883.17.3.10.1.104]

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

| Contained By | Contains |
|--------------------------------|---|
| <i>EMS Disposition Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11567) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.104"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 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 at least one [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

```
<observation classCode="OBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.104"/>
  <code code="77155-0" codeSystem="2.16.840.1.113883.6.1"
    displayName="Hospital designation capability"/>
</observation>
```

```
<value xsi:type="CD"/>
</observation>
```

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** (CONF:11459) 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 NEMSIS* (CodeSystem:) (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)
- NEMSIS Trace: ESituation.09

Primary Symptom example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.66"/>
  <code code="67774-0" displayName="Primary sign and symptom NEMSIS"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>
```

Prior Aid Vitals

[Observation: templateId 2.16.840.1.113883.17.3.10.1.29]

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** (CONF:11422) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.29"
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11131)
 3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67518-1" *Obtained prior to units EMS care NEMSIS* (CodeSystem:) (CONF:10273)
 4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:11132)
- NEMSIS Trace: EVitals.02

Prior Aid Vitals example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.29"/>
  <code code="67518-1" displayName="Obtained prior to units EMS care NEMSIS"/>
  <value xsi:type="BL"/>
</observation>
```

Procedure

[Procedure: templateId 2.16.840.1.113883.17.3.10.1.181]

Procedure performed by EMS unit

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11496) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.181"
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), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.96 SNOMED CT) (CONF:11497)

NEMESIS Trace: EProcedures.03, for which use SNOMED CT See the NEMESIS Suggested Lists at <https://nemesis.org/technical-resources/version-3/version-3-resource-repository/> Also EArrest.09, for which use 439569004 [Resuscitation (procedure)], with a translation of Cardiopulmonary Resuscitation type (VS 2.16.840.1.113883.17.3.11.57) and EArrest.10 (therapeutic hypothermia); include here as 308693008 [Induction of hypothermia (procedure)], 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] **statusCode** (CONF:10499)

NEMESIS Trace: EArrest.15 Use value "aborted" for discontinued resuscitation (eArrest.15)

5. **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

6. **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.

7. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10498)

Required for cardiac resuscitation procedures (eArrest.16)

- a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Abandoned Procedure Reason Observation* (CONF:10510)
8. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10503)
 - a. **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** such that it (CONF:10504)

Important for airway insertion

- a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Number Of Attempts Observation* (CONF:10519)

NEMESIS Trace: EProcedures.05

10. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it (CONF:10505)

- a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Successful Observation* (CONF:10523)
- 11. **MAY** contain zero or more [0..*] **entryRelationship** such that it (CONF:10506)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Complications Observation* (CONF:10527)
- 12. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it (CONF:10507)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Procedure Patient Response Observation* (CONF:10531)
- 13. **SHOULD** contain zero or one [0..1] **performer** such that it (CONF:10508)

For procedures documented in eProcedures section, use the ProviderRole classification for provider.

For procedures documented in eArrest section (eArrest.20 Who first initiated CPR, eArrest.21 Who first applied AED, eArrest.22 Who first defibrillated?), use the ProviderCategory classification for provider.

- a. **SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:10536)
 - a. **MAY** contain zero or one [0..1] **id** (CONF:10539)

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

NEMSIS Trace: EProcedures.10 - Role/Type of Person Performing the Procedure; eArrest.20 - Who First Initiated CPR; eArrest.21 - Who First Applied the AED; eArrest.22 - Who First Defibrillated the Patient
 - b. contain zero or one [0..1] **assignedEntity**, where its type is CDA Assigned Entity
- 14. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10509)

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

 - a. **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** such that it (CONF:11089)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Reason Procedure Not Attempted Observation* (CONF:11088)
- 16. **MAY** contain zero or more [0..*] **participant** such that it (CONF:11387)
 - a. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:10548)
 - a. **SHALL** contain exactly one [1..1] **playingDevice** such that it (CONF:10549)
 - a. **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)

NEMSIS Trace: EAirway.03

Procedure example

```
<procedure classCode="XACT" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.181"/>
  <code codeSystem="2.16.840.1.113883.6.96"/>
  <effectiveTime/>
</procedure>
```

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** (CONF:11526) 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:) (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 Complications Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.179"/>
  <code code="67545-4" displayName="Procedure complication NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11524) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.132"
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11257)
 3. **SHALL** contain exactly one [1..1] **code** (CONF:10520)/**@code**="67543-9" *Procedure attempts [#]* *NEMESIS* (CodeSystem:) (CONF:10521)
 4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10522)
- NEMESIS Trace: EProcedures.05

Procedure Number Of Attempts Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.132"/>
  <code code="67543-9" displayName="Procedure attempts [#] NEMESIS"/>
  <value xsi:type="INT"/>
</observation>
```

Procedure Patient Response Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.135]

How a patient responded to a procedure

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11527) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.135"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11260)

3. **SHALL** contain exactly one [1..1] **code** (CONF:10532)/@**code**="67546-2" *Response to procedure NEMESIS* (CodeSystem:) (CONF:10533)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="CD" (CONF:10534), which **SHALL** be selected from ValueSet *ChangeInPatientStatus 2.16.840.1.113883.17.3.11.78 DYNAMIC* (CONF:10535)

NEMESIS Trace: EProcedures.08

Procedure Patient Response Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.135"/>
  <code code="67546-2" displayName="Response to procedure NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Procedure Prior Indicator

[Observation: templateId 2.16.840.1.113883.17.3.10.1.131]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11523) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.131"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10517)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="BL" (CONF:10518)

NEMESIS Trace: EProcedures.02 Procedure Performed Prior to this Unit's EMS Care; EArrest.07 AED Use Prior to EMS Arrival

Procedure Prior Indicator example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.131"/>
  <code code="67542-1" displayName="Procedure performed prior to this units
  EMS care NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Procedure Successful Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.133]

Indication of whether a procedure was successful

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11525) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.133"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11258)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10524)/@**code**="67544-7" *Procedure successful NEMESIS* (CodeSystem:) (CONF:10525)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="BL" (CONF:10526)

NEMESIS Trace: EProcedures.06

Procedure Successful Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.133"/>
  <code code="67544-7" displayName="Procedure successful NEMESIS"/>
  <value xsi:type="BL"/>
</observation>
```

Protocol Age Category

[Observation: templateId 2.16.840.1.113883.17.3.10.1.149]

Age range for which a protocol is appropriate

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11539) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.149"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11282)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10723)/**@code**="67538-9" *Protocol age category NEMESIS* (CodeSystem:) (CONF:10724)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10725), which **SHALL** be selected from ValueSet *ProtocolAgeCategory* 2.16.840.1.113883.17.3.11.86 **DYNAMIC** (CONF:10726)

NEMESIS Trace: EProtocols.02

Protocol Age Category example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.149"/>
  <code code="67538-9" displayName="Protocol age category NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Protocol Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.93]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11487) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.93"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11209)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10719)/**@code**="67537-1" *Protocol used NEMESIS* (CodeSystem:) (CONF:10718)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10720), which **SHALL** be selected from ValueSet *Protocol* 2.16.840.1.113883.17.3.11.73 **DYNAMIC** (CONF:10721)

NEMESIS Trace: EProtocols.01

5. contain zero or one [0..1] **entryRelationship** such that it
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Protocol Age Category* (CONF:11073)

Protocol Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.93"/>
  <code code="67537-1" displayName="Protocol used NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Provider Primary Impression

[Observation: templateId 2.16.840.1.113883.17.3.10.1.65]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11458) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.65"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11172)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10796)/**@code**="67492-9" *Primary problem NEMESIS* (CodeSystem:) (CONF:10797)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10798), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:10799)

NEMESIS Trace: ESituation.11

Provider Primary Impression example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.65"/>
  <code code="67492-9" displayName="Primary problem NEMESIS"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>
```

Provider Secondary Impressions

[Observation: templateId 2.16.840.1.113883.17.3.10.1.68]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11461) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.68"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11175)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10811)/**@code**="69542-9" *Secondary problem NEMESIS* (CodeSystem:) (CONF:10812)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10813), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:10814)

NEMESIS Trace: ESituation.12

Provider Secondary Impressions example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.68"/>
  <code code="69542-9" displayName="Secondary problem NEMESIS"/>
</observation>
```

```
<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.90"/>
</observation>
```

Reason For Choosing Destination Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.35]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11426) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.35"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11140)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10684)/**@code**="67552-0" *Reason for choosing destination NEMSIS* (CodeSystem:) (CONF:10683)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10685), which **SHALL** be selected from ValueSet DestinationChoiceReason 2.16.840.1.113883.17.3.11.68 **DYNAMIC** (CONF:10686)

NEMSIS Trace: EDisposition.20

Reason For Choosing Destination Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.35"/>
  <code code="67552-0" displayName="Reason for choosing destination NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Reason Procedure Not Attempted Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.137]

Why the EMS crew did not attempt to perform a specific procedure

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11529) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.137"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11262)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67504-1" *Reason resuscitation not attempted NEMSIS* (CodeSystem:) (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 2.16.840.1.113883.17.3.11.100 **DYNAMIC** (CONF:11265)

NEMSIS 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"

Reason Procedure Not Attempted Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
```

```

<templateId root="2.16.840.1.113883.17.3.10.1.137"/>
<code code="67504-1" displayName="Reason resuscitation not attempted
NEMESIS"/>
<value xsi:type="CD"/>
</observation>

```

Respiratory Rate

[Observation: templateId 2.16.840.1.113883.17.3.10.1.146]

Patient's rate of respiration

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11536) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.146"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11276)
3. **SHALL** contain exactly one [1..1] **code**/**@code**="9279-1" *Respiratory rate* (CodeSystem:) (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".

Respiratory Rate example

```

<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.146"/>
  <code code="9279-1" displayName="Respiratory rate"/>
  <value xsi:type="PQ"/>
</observation>

```

Response Beginning Odometer Reading

[Observation: templateId 2.16.840.1.113883.17.3.10.1.171]

Odometer reading for the EMS vehicle when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11561) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.171"
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 NEMESIS --beginning of call* (CodeSystem:) (CONF:10632)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10633)

NEMESIS Trace: EResponse.19 UCUM units SHOULD be "[mi_i]"

Response Beginning Odometer Reading example

```

<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.171"/>
  <code code="67484-6" displayName="Counter or odometer reading NEMESIS --
beginning of call"/>
  <value xsi:type="PQ"/>

```

```
</observation>
```

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** (CONF:11544) 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 NEMESIS* (CodeSystem:) (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)
- NEMESIS Trace: EResponse.09

Response Delay example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.154"/>
  <code code="67557-9" displayName="Response delay NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11563) 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 NEMESIS --patient destination* (CodeSystem:) (CONF:10640)
 4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10641)
- NEMESIS Trace: EResponse.21 UCUM units SHOULD be "[mi_i]"

Response Destination Odometer Reading example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.173"/>
  <code code="67486-1" displayName="Counter or odometer reading NEMESIS --
patient destination"/>
  <value xsi:type="PQ"/>
</observation>
```

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** (CONF:11418) 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:) (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 Ending Odometer Reading example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.174"/>
  <code code="67487-9" displayName="Counter or odometer reading NEMSIS --end
of call"/>
  <value xsi:type="PQ"/>
</observation>
```

Response Mode Qualifier

[Observation: templateId 2.16.840.1.113883.17.3.10.1.191]

Characteristics of the response mode

| Contained By | Contains |
|-------------------------------|---|
| <i>Response Mode To Scene</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11569) 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* (CodeSystem:) (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)

NEMESIS Trace: eResponse.24 (Additional Response Mode Descriptors)

Response Mode Qualifier example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.191"/>
  <code code="77157-6" displayName="Response mode descriptors"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11495) 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 NEMESIS* (CodeSystem:) (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** such that it (CONF:11343)

- a. Conforms to [Response Mode Qualifier](#) (templateId: 2.16.840.1.113883.17.3.10.1.191)

Response Mode To Scene example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.182"/>
  <code code="67482-0" displayName="Response mode to scene NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Response Odometer Reading Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.97]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11494) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.97"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:10626)
 - a. **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** such that it (CONF:10627)
 - a. **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** such that it (CONF:10628)
 - a. **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** such that it (CONF:10629)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is [Response Ending Odometer Reading](#) (CONF:10642)

Response Odometer Reading Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.97"/>
  <statusCode/>
</organizer>
```

Response On Scene Odometer Reading

[Observation: templateId 2.16.840.1.113883.17.3.10.1.172]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11562) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.172"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11315)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10635)/**@code**="67485-3" *Counter or odometer reading NEMESIS --patient arrival* (CodeSystem:) (CONF:10636)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10637)

NEMSIS Trace: EResponse.20 UCUM units SHOULD be "[mi_i]"

Response On Scene Odometer Reading example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.172"/>
  <code code="67485-3" displayName="Counter or odometer reading NEMSIS --
patient arrival"/>
  <value xsi:type="PQ"/>
</observation>
```

Return Of Spontaneous Circulation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.128]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11520) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.128"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11252)
3. **SHALL** contain exactly one [1..1] **code/@code**="67513-2" *Return of spontaneous circulation NEMSIS* (CodeSystem:) (CONF:10184)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11253), which **SHALL** be selected from ValueSet *ReturnOfSpontaneousCirculation* 2.16.840.1.113883.17.3.11.15 **DYNAMIC** (CONF:10185)

NEMSIS Trace: EArrest.12

Return Of Spontaneous Circulation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.128"/>
  <code code="67513-2" displayName="Return of spontaneous circulation
NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Scene Delay

[Observation: templateId 2.16.840.1.113883.17.3.10.1.155]

Causes of delay at the event scene

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11545) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.155"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11288)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10600)/**@code**="67558-7" *Scene delay NEMSIS* (CodeSystem:) (CONF:10599)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10602), which **SHALL** be selected from ValueSet *SceneDelayType* 2.16.840.1.113883.17.3.11.52 **DYNAMIC** (CONF:10601)

NEMSIS Trace: EResponse.10

Scene Delay example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.155"/>
  <code code="67558-7" displayName="Scene delay NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Scene Patient Count

[Observation: templateId 2.16.840.1.113883.17.3.10.1.86]

How many patients were at the scene

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11480) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.86"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11199)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10750)/**@code**="67489-5" *Total patients at the scene NEMESIS* (CodeSystem:) (CONF:10749)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10751)
NEMESIS Trace: EScene.06

Scene Patient Count example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.86"/>
  <code code="67489-5" displayName="Total patients at the scene NEMESIS"/>
  <value xsi:type="INT"/>
</observation>
```

Skin Assessment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.180]

Qualitative assessment of condition of patient's skin

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11570) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.180"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11223)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10368)/**@code**="67524-9" *Physical findings of Skin NEMESIS* (CodeSystem:) (CONF:10369)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11386)
NEMESIS Trace: EExam.03
5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD" (CONF:10370), which **SHALL** be selected from ValueSet *SkinAssessment* 2.16.840.1.113883.17.3.11.25 **DYNAMIC** (CONF:10371)
NEMESIS Trace: EExam.04

Skin Assessment example

```
<observation classCode="SPCOBS" moodCode="EVN">
```

```
<templateId root="2.16.840.1.113883.17.3.10.1.180"/>
<code code="67524-9" displayName="Physical findings of Skin NEMESIS"/>
<value xsi:type="CD"/>
</observation>
```

Stroke Score

[Observation: templateId 2.16.840.1.113883.17.3.10.1.163]

Result of a stroke scale instrument

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11553) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.163"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11297)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10308)/**@code**="67520-7" *Stroke scale overall interpretation NEMESIS* (CodeSystem:) (CONF:10307)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11298)

NEMESIS 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 2.16.840.1.113883.17.3.11.93 **DYNAMIC** (CONF:10309)

NEMESIS Trace: EVitals.29
6. **SHALL** contain exactly one [1..1] **methodCode** (CONF:10312), which **SHALL** be selected from ValueSet StrokeScale 2.16.840.1.113883.17.3.11.88 **DYNAMIC** (CONF:10311)

NEMESIS Trace: EVitals.30

Stroke Score example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.163"/>
  <code code="67520-7" displayName="Stroke scale overall interpretation
  NEMESIS"/>
  <value xsi:type="CD"/>
  <methodCode/>
</observation>
```

Systolic Blood Pressure

[Observation: templateId 2.16.840.1.113883.17.3.10.1.23.1]

Measurement of the patient's systolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11419) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.23.1"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11271)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="8480-6" *Systolic blood pressure* (CodeSystem:) (CONF:10280)
4. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:7304)

NEMESIS 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. **MAY** contain zero or one [0..1] **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)

Systolic Blood Pressure example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.23.1"/>
  <code code="8480-6" displayName="Systolic blood pressure"/>
  <value xsi:type="PQ"/>
</observation>
```

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** (CONF:11477) 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:) (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

Thrombolytic Contraindications example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.82"/>
  <code code="67523-1" displayName="Contraindication for thrombolytic use NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11546) 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 NEMSIS* (CodeSystem:) (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)

NEMSIS Trace: EResponse.11

Transport Delay example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.156"/>
  <code code="67559-5" displayName="Transport delay NEMSIS"/>
  <value xsi:type="CD"/>
</observation>
```

Transport Disposition

[Observation: templateId 2.16.840.1.113883.17.3.10.1.199]

The transport disposition for an EMS event identifying whether a transport occurred and by which unit.

| Contained By | Contains |
|--------------------------------|---|
| <i>EMS Disposition Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |

| Contained By | Contains |
|--------------|---------------------------------|
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11592) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.199"
2. **SHALL** contain exactly one [1..1] **code/@code**="neweDisposition.30" *Transport Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11593)
3. **SHOULD** contain zero or more [0..*] **value** with **@xsi:type**="CD" (CONF:11595), which **SHALL** be selected from ValueSet *TransportDisposition* 2.16.840.1.113883.17.3.11.115 **STATIC** (CONF:11594)

NEMESIS Trace: eDisposition.30

Transport Disposition example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.199"/>
  <code code="neweDisposition.30" codeSystem="2.16.840.1.113883.6.1"
    displayName="Transport Disposition"/>
</observation>
```

Transport Method Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.34]

Vehicle or device used to transport patient

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11425) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.34"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11139)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10679)/**@code**="67549-6" *Transport method NEMESIS* (CodeSystem:) (CONF:10678)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10680), which **SHALL** be selected from ValueSet *TransportMethod* 2.16.840.1.113883.17.3.11.65 **DYNAMIC** (CONF:10681)

NEMESIS Trace: EDisposition.16

Transport Method Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.34"/>
  <code code="67549-6" displayName="Transport method NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Transport Mode Observation

[Observation: templateId 2.16.840.1.113883.17.3.10.1.33]

Indication of whether the transport was emergent or non-emergent

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11424) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.33"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11138)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10674)/**@code**="67550-4" *Transport mode from scene NEMSIS* (CodeSystem:) (CONF:10673)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10675), which **SHALL** be selected from ValueSet *TransportationMode* 2.16.840.1.113883.17.3.11.66 **DYNAMIC** (CONF:10676)
NEMSIS Trace: EDisposition.17 (disposition transport mode)
5. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:11379)
 - a. contain exactly one [1..1] **@typeCode**="COMP"
 - b. **SHALL** contain exactly one [1..1] **observation**, where its type is *Transport Mode Qualifier* (CONF:11339)

Transport Mode Observation example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.33"/>
  <code code="67550-4" displayName="Transport mode from scene NEMSIS"/>
  <value xsi:type="CD"/>
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.193"/>
      <code code="77153-5" displayName="Transport Mode Descriptors"/>
      <value xsi:type="CD"/>
    </observation>
  </entryRelationship>
</observation>
```

Transport Mode Qualifier

[Observation: templateId 2.16.840.1.113883.17.3.10.1.193]

Characteristics of the transport mode

| Contained By | Contains |
|--------------|---|
| | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |

| Contained By | Contains |
|--------------|--|
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11566) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.193"
 2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) (CONF:11353)
 3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11378)
 4. **SHALL** contain exactly one [1..1] **code** (CONF:11354)/**@code**="77153-5" *Transport Mode Descriptors* (CodeSystem:) (CONF:11355)
 5. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *TransportModeQualifier* 2.16.840.1.113883.17.3.11.102 **DYNAMIC** (CONF:11356)
- NEMESIS Trace: eDisposition.18 (additional transport mode descriptors)

Transport Mode Qualifier example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.193"/>
  <code code="77153-5" displayName="Transport Mode Descriptors"/>
  <value xsi:type="CD"/>
</observation>
```

Trauma Center Criteria

[Observation: templateId 2.16.840.1.113883.17.3.10.1.52]

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** (CONF:11444) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.52"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11157)

3. **SHALL** contain exactly one [1..1] **code**/@**code**="67495-2" *CDC field triage criteria NEMESIS* (CodeSystem:) (CONF:10111)
4. **SHALL** contain at least one [1..*] **value** with @**xsi:type**="CD", which **SHALL** be selected from ValueSet *TraumaCenterCriteria 2.16.840.1.113883.17.3.11.3 DYNAMIC* (CONF:10112)
NEMESIS Trace: EInjury.03

Trauma Center Criteria example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.52"/>
  <code code="67495-2" displayName="CDC field triage criteria NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Turnaround Delay

[Observation: templateId 2.16.840.1.113883.17.3.10.1.157]

Causes of delay to the unit turnaround process

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11547) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.157"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11290)
3. **SHALL** contain exactly one [1..1] **code** (CONF:10610)/@**code**="67560-3" *Turn-around delay NEMESIS* (CodeSystem:) (CONF:10609)
4. **SHALL** contain at least one [1..*] **value** with @**xsi:type**="CD" (CONF:10612), which **SHALL** be selected from ValueSet *TurnAroundDelayType 2.16.840.1.113883.17.3.11.54 DYNAMIC* (CONF:10611)

NEMESIS Trace: EResponse.12

Turnaround Delay example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.157"/>
  <code code="67560-3" displayName="Turn-around delay NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Unit At Patient Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.42]

Time the unit arrived at the patient

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11434) such that it
 - a. **SHALL** contain exactly one [1..1] @**root**="2.16.840.1.113883.17.3.10.1.42"
2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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 NEMESIS* (CodeSystem:) (CONF:10850)
4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="TS" (CONF:10852)

NEMSIS Trace: ETimes.07

Unit At Patient Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.42"/>
  <code code="69474-5" displayName="Responding unit arrived at the patient's
    side [Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

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** (CONF:11437) 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:) (CONF:10862)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10864)

NEMSIS Trace: ETimes.13

Unit Back In Service Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.45"/>
  <code code="69477-8" displayName="Unit was back in service and available
    for response [Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

Unit Disposition

[Observation: templateId 2.16.840.1.113883.17.3.10.1.196]

The patient disposition for an EMS event identifying whether patient contact was made.

| Contained By | Contains |
|--------------------------------|---|
| <i>EMS Disposition Section</i> | <i>Abandoned Procedure Reason Observation</i> |
| | <i>Abdomen Assessment</i> |
| | <i>Airway Confirmation Observation</i> |
| | <i>Arrest Rhythm</i> |
| | <i>Back And Spine Assessment</i> |
| | <i>Body Temperature</i> |
| | <i>Cardiac Arrest Cause</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Cardiac Arrest Outcome</i> |
| | <i>Cardiac Arrest Timing</i> |
| | <i>Complaint Duration</i> |
| | <i>Complaint Organ System</i> |
| | <i>Complaint Type</i> |
| | <i>Destination Rhythm</i> |
| | <i>Diastolic Blood Pressure</i> |
| | <i>Dispatch Delay</i> |
| | <i>Dispatch Location Latitude</i> |
| | <i>Dispatch Location Longitude</i> |
| | <i>Dispatch Location Name</i> |
| | <i>Extremities Assessment</i> |
| | <i>Eye Assessment</i> |
| | <i>Face Assessment</i> |
| | <i>Head Assessment</i> |
| | <i>Heart Assessment</i> |
| | <i>Heart Rate</i> |
| | <i>Length Based Patient Body Weight Class</i> |
| | <i>Medication Complication Observation</i> |
| | <i>Medication Manufactured Product</i> |
| | <i>Medication Not Administered Reason Observation</i> |
| | <i>Medication Prior Administration Observation</i> |
| | <i>Medication Response Observation</i> |
| | <i>Mental Status Assessment</i> |
| | <i>Neck Assessment</i> |
| | <i>Neurological Assessment</i> |
| | <i>Oxygen Saturation</i> |
| | <i>Patient Body Weight</i> |
| | <i>Pelvic And Genitourinary Assessment</i> |
| | <i>Procedure Complications Observation</i> |
| | <i>Procedure Number Of Attempts Observation</i> |
| | <i>Procedure Patient Response Observation</i> |
| | <i>Procedure Prior Indicator</i> |
| | <i>Procedure Successful Observation</i> |

| Contained By | Contains |
|--------------|---|
| | <i>Protocol Age Category</i> |
| | <i>Reason Procedure Not Attempted Observation</i> |
| | <i>Respiratory Rate</i> |
| | <i>Response Beginning Odometer Reading</i> |
| | <i>Response Delay</i> |
| | <i>Response Destination Odometer Reading</i> |
| | <i>Response Ending Odometer Reading</i> |
| | <i>Response On Scene Odometer Reading</i> |
| | <i>Return Of Spontaneous Circulation</i> |
| | <i>Scene Delay</i> |
| | <i>Skin Assessment</i> |
| | <i>Systolic Blood Pressure</i> |
| | <i>Transport Delay</i> |
| | <i>Transport Mode Qualifier</i> |
| | <i>Turnaround Delay</i> |

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11578) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.196"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11580)/**@code**="neweDisposition.27" *Unit Disposition* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11579)
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11582), which **SHALL** be selected from ValueSet EMS Unit Disposition 2.16.840.1.113883.17.3.11.112 **STATIC** (CONF:11581)

NEMESIS trace: eDisposition.27

Unit Disposition example

```
<observation classCode="SPCOBS" moodCode="RQO">
  <templateId root="2.16.840.1.113883.17.3.10.1.196"/>
  <code code="neweDisposition.27" codeSystem="2.16.840.1.113883.6.1"
    displayName="Unit Disposition"/>
  <value xsi:type="CD"/>
</observation>
```

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** (CONF:11432) 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:) (CONF:10842)
 4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="TS" (CONF:10844)
- NEMSIS Trace: ETimes.05

Unit En Route Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.40"/>
  <code code="69472-9" displayName="Unit responded [Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

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** (CONF:11435) 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:) (CONF:10854)
 4. **SHALL** contain exactly one [1..1] **value** with @**xsi:type**="TS" (CONF:10856)
- NEMSIS Trace: ETimes.09

Unit Left Scene Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.43"/>
  <code code="69475-2" displayName="Responding unit left the scene with a patient [Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

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** (CONF:11431) 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:) (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 Notified Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.39"/>
  <code code="69471-1" displayName="Responding unit was notified by dispatch
[Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

Unit On Scene Time

[Observation: templateId 2.16.840.1.113883.17.3.10.1.41]

Time the unit arrived at the incident scene

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11433) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.41"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 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:) (CONF:10846)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10848)

NEMSIS Trace: ETimes.06

Unit On Scene Time example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.41"/>
  <code code="69473-7" displayName="Responding unit arrived on the scene
[Date and time] Vehicle NEMSIS"/>
  <value xsi:type="TS"/>
</observation>
```

Vehicle Impact Area

[Observation: templateId 2.16.840.1.113883.17.3.10.1.54]

Area of vehicle struck in a vehicle collision

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11446) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.54"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11159)
3. **SHALL** contain exactly one [1..1] **code**/ **@code**="67497-8" *Location of impact on the vehicle NEMSIS* (CodeSystem:) (CONF:10117)
4. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet VehicleImpactArea 2.16.840.1.113883.17.3.11.5 **DYNAMIC** (CONF:10118)

NEMSIS Trace: EInjury.05

Vehicle Impact Area example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.54"/>
```

```
<code code="67497-8" displayName="Location of impact on the vehicle
NEMESIS"/>
<value xsi:type="CD"/>
</observation>
```

Vehicle Occupant Safety Equipment

[Observation: templateId 2.16.840.1.113883.17.3.10.1.56]

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

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:11448) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.56"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11161)
3. **SHALL** contain exactly one [1..1] **code/@code**="67499-4" *Safety equipment NEMESIS* (CodeSystem:) (CONF:10123)
4. **SHALL** contain at least one [1..*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet *SafetyEquipmentType* 2.16.840.1.113883.17.3.11.7 **DYNAMIC** (CONF:10124)

NEMESIS Trace: EInjury.07

Vehicle Occupant Safety Equipment example

```
<observation classCode="SPCOBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.17.3.10.1.56"/>
  <code code="67499-4" displayName="Safety equipment NEMESIS"/>
  <value xsi:type="CD"/>
</observation>
```

Vital Signs Organizer

[Organizer: templateId 2.16.840.1.113883.17.3.10.1.28]

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** (CONF:11421) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.17.3.10.1.28"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11338)/**@code**="46680005" *Vital signs* (CodeSystem:) (CONF:11337)

May also use LOINC 74728-7 "Vital signs, weight, height, head circumference, oximetry, BMI, and BSA panel - HL7.CCDAr1.1"

3. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10257)

NEMESIS Trace: EVitals.01
4. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11078)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Systolic Blood Pressure* (CONF:11077)

5. **SHOULD** contain zero or one [0..1] **datatypes:realmCode** such that it (CONF:11080)
 - a. **SHALL** contain exactly one [1..1] **DiastolicBloodPressure**, where its type is *Diastolic Blood Pressure* (CONF:11079)
6. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11082)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Heart Rate* (CONF:11081)
7. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11084)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Respiratory Rate* (CONF:11083)
8. **SHOULD** contain zero or one [0..1] **component** such that it (CONF:11086)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Body Temperature* (CONF:11085)
9. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11090)
 - a. **SHALL** contain exactly one [1..1] **observation**, where its type is *Oxygen Saturation* (CONF:11087)
10. **SHALL** contain [1..1] **component** such that it (CONF:11335)
 - a. Conforms to *Prior Aid Vitals* (templateId: 2.16.840.1.113883.17.3.10.1.29)
11. **SHALL** contain [1..1] **component** such that it (CONF:11336)
 - a. Conforms to *Additional Vital Signs Organizer* (templateId: 2.16.840.1.113883.17.3.10.1.30)

Vital Signs Organizer example

```
<organizer classCode="CLUSTER" moodCode="SLOT">
  <templateId root="2.16.840.1.113883.17.3.10.1.28"/>
  <code code="46680005" displayName="Vital signs"/>
  <statusCode/>
  <effectiveTime/>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.23.1"/>
      <code code="8480-6" displayName="Systolic blood pressure"/>
      <value xsi:type="PQ"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.145"/>
      <code code="8867-4" displayName="Heart rate"/>
      <value xsi:type="PQ"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.146"/>
      <code code="9279-1" displayName="Respiratory rate"/>
      <value xsi:type="PQ"/>
    </observation>
  </component>
  <component>
    <observation classCode="SPCOBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.17.3.10.1.177"/>
      <code code="2708-6" displayName="Oxygen saturation in Arterial blood"/>
    </observation>
  </component>
  <value xsi:type="PQ"/>
</organizer>
```

Chapter

5

VALUE SETS

Topics:

- *Abdomen Assessment Finding*
- *Abdominal Finding Location*
- *Act Code*
- *Act Status*
- *Administrative Gender Excluding Nulls*
- *Administrative Gender (HL7 V3)*
- *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*
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- *Crew Disposition*
- *Crew Role Level*
- *Destination Choice Reason*
- *Destination Prearrival Activation*
- *Destination Type*
- *Destination Ward Kind*

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

- *Disaster Type*
- *Dispatch Delay Type*
- *Dispatch Reason*
- *ECG Type*
- *EMD Performed*
- *EMS Crew Disposition*
- *EMS Level Of Service*
- *EMS Medication Administration Device*
- *EMS Transport Disposition*
- *EMS Unit Disposition*
- *Entity Name Use*
- *Ethnicity*
- *Ethnicity Group*
- *Ethnicity Value Set*
- *Existence Of Contraindications To Thrombolytic Use*
- *Extremities Assessment Finding*
- *Extremity Finding Location*
- *Eye Assessment Finding*
- *Eye Finding Location*
- *FDA Route of Administration*
- *Face Assessment Finding*
- *Final Patient Condition*
- *First Monitored Rhythm*
- *Glasgow Coma Score Special Circumstances*
- *HL7 BasicConfidentialityKind*
- *HL7 Confidentiality*
- *HL7 Human Language*
- *HL7 LanguageAbilityMode*
- *HL7 Marital Status*
- *HL7 Religious Affiliation*
- *Head Assessment Finding*
- *Healthcare Provider Taxonomy (HIPAA)*
- *Heart Assessment Finding*
- *Human language*
- *IC D-10*
- *ICD-10 CM*
- *ICD-10 CM AND PCS*
- *ICD-10 PCS*
- *Infusion Site*
- *Initial Patient Condition*
- *Injury Risk Factor*
- *LOINC*
- *Language*
- *Language Ability Proficiency*

- *Length Based Weight Class*
- *Level Of Responsiveness*
- *Lung Finding*
- *Lung Finding Location*
- *Mechanism Of Injury*
- *Medication Administration Route*
- *Medication Administration Site*
- *Medication Authorization Type*
- *Medication Clinical Drug Name Value Set*
- *Medication Complication*
- *Medication Not Given Reason*
- *Mental Status Finding*
- *Method Of ECG Interpretation*
- *NEMSIS*
- *Neck Assessment Finding*
- *Neurological Assessment Finding*
- *Non Drug Allergy Type*
- *Organ System*
- *Patient Engagement*
- *Pelvis Genitourinary Assessment*
- *Postal Address Use*
- *Pregnancy*
- *Primary Hospital Capability*
- *Procedure Complication Type*
- *Protocol*
- *Protocol Age Category*
- *Provider Adverse Event Type*
- *Provider Category*
- *Provider Response Role*
- *Provider Role*
- *Race*
- *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*
- *SNOMED CT*
- *Safety Equipment Type*
- *Scene Delay Type*
- *Service Type*
- *Skin Assessment*
- *Stroke Scale*
- *Stroke Scale Interpretation*
- *Transport Delay Type*
- *Transport Disposition*
- *Transport Method*
- *Transport Mode Qualifier*
- *Transportation Mode*
- *Trauma Center Criteria*
- *Turn Around Delay Type*
- *Unit Disposition*
- *Unit Equipment Capability*
- *Vehicle Impact Area*
- *Vehicle Passenger Location*

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 |
| 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 |
| LA23813-1 | LOINC | Epigastric |

Act Code

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

Act Status

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

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 | MISSING | Male |
| F | MISSING | Female |

Administrative Gender (HL7 V3)

| | |
|-----------|---|
| Value Set | Administrative Gender (HL7 V3) - 2.16.840.1.113883.1.11.1 |
|-----------|---|

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

| Code | Code System | Print Name |
|------|-------------|------------------|
| UN | | Undifferentiated |

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 |
| Version | 2022 |
| 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 |
| LA18679-3 | LOINC | Other airway device placement confirmation |
| NewLA-4004021 | LOINC | Chest rise |

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 |

| Code | Code System | Print Name |
|---------------|-------------|--|
| LA17324-7 | LOINC | Drug paraphernalia at scene |
| LA17325-4 | LOINC | Patient admits to alcohol use |
| LA17326-2 | LOINC | Patient admits to drug use |
| LA17327-0 | LOINC | Positive level known from law enforcement or hospital record |
| NewLA-3117013 | LOINC | Physical Exam Indicates Suspected Alcohol or Drug Use |

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 |

| Code | Code System | Print Name |
|-----------|-------------|---------------------------------------|
| LA17257-9 | LOINC | Tenderness costovertebral angle (CVA) |
| LA17258-7 | LOINC | Tenderness midline spinous process |
| LA17259-5 | LOINC | Tenderness paraspinous |
| 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 |
| LA17212-4 | LOINC | Gunshot wound |

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 |

| Code | Code System | Print Name |
|-----------|-------------|------------------|
| LA18733-8 | LOINC | Sacral-left |
| LA18734-6 | LOINC | Sacral-midline |
| LA18735-3 | LOINC | Lumbar-midline |
| LA18736-1 | LOINC | Thoracic-midline |
| 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 |
| NewLA-3101035 | LOINC | Drug Use, Suspected |
| NewLA-3101033 | LOINC | Alcohol Use, Suspected |

Blood Pressure Measurement Method

| | |
|-----------|--|
| Value Set | BloodPressureMeasurementMethod - 2.16.840.1.113883.17.3.11.107 |
|-----------|--|

| | | |
|-------------|--|---------------------------|
| Definition | Technique for measuring blood pressure | |
| Code | Code System | Print Name |
| LA24013-7 | | Cuff-automated |
| LA24012-9 | | Cuff-manual auscultated |
| LA25780-0 | | Arterial Line |
| LA25782-6 | | Cuff-Manual Palpated Only |
| LA19771-7 | | Doppler |
| LA25783-4 | | 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 |
| Version | 2022 |
| Definition | Etiology of a cardiac arrest |

| | | |
|-------------|--------------------|--|
| Code | Code System | Print Name |
| LA17056-5 | LOINC | Cardiac (presumed) |
| LA17058-1 | LOINC | Traumatic Cause |
| LA17059-9 | LOINC | Other |
| LA17977-2 | LOINC | Drowning/submersion |
| LA17978-0 | LOINC | Drug overdose |
| LA17979-8 | LOINC | Exsanguination-Medical (Non-Traumatic) |
| LA17980-6 | LOINC | Respiratory/asphyxia |
| LA9539-3 | LOINC | Electrocution |

Cardiac Arrest Outcome

| | |
|------------|--|
| Value Set | CardiacArrestOutcome - 2.16.840.1.113883.17.3.11.101 |
| Definition | Outcome of an EMS cardiac arrest event |

| | | |
|-------------|--------------------|--|
| Code | Code System | Print Name |
| LA22792-8 | MISSING | Expired in ED |
| LA22793-6 | | Expired in the field |
| LA22794-4 | | Ongoing resuscitation in the ED |
| LA22795-1 | | Return of spontaneous circulation in the field |
| LA22796-9 | | Return of spontaneous circulation in the ED |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA22797-7 | | Ongoing resuscitation by other EMS crew |

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 Bystander |
| 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 |
| 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 |

| Code | Code System | Print Name |
|---------------|-------------|------------------------------------|
| 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 |
| NewLA-9901030 | LOINC | Non-STEMI Septal Ischemia |
| NewLA-9901058 | LOINC | STEMI Septal 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-Manual |
| LA17750-3 | LOINC | Compressions-external band type device |
| LA17751-1 | LOINC | Compressions-external plunger type device |
| LA17752-9 | LOINC | Compressions-external thumper type device |

| Code | Code System | Print Name |
|---------------|-------------|---|
| 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 |
| NewLA-3009023 | LOINC | Ventilation-with OPA/NPA |
| NewLA-3009025 | LOINC | Ventilation-Advanced Airway Device |
| NewLA-3009027 | LOINC | Ventilation-Passive Ventilation with Oxygen |
| NewLA-3009021 | LOINC | Compressions-Hands Only CPR |

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 Finding

| | |
|-----------|--|
| Value Set | ChestFinding - 2.16.840.1.113883.17.3.11.118 |
|-----------|--|

| Code | Code System | Print Name |
|--------------|-------------|---------------------|
| newLA3525007 | | Bleeding Controlled |
| newLA3525025 | | Implanted Device |
| newLA3525027 | | Laceration |
| newLA3525029 | | Normal |
| newLA3525047 | | Contusion |
| newLA3525021 | | Deformity |
| newLA3525049 | | Tenderness-General |
| newLA3525019 | | Crush Injury |
| newLA3525017 | | Burn-White/Waxy |

| Code | Code System | Print Name |
|--------------|-------------|---------------------------------------|
| newLA3525015 | | Burn-Redness |
| newLA3525013 | | Burn-Charring |
| newLA3525023 | | Flail Segment |
| newLA3525009 | | Bleeding Uncontrolled |
| newLA3525031 | | Not Done |
| newLA3525005 | | Accessory Muscles Used with Breathing |
| newLA3525003 | | Avulsion |
| newLA3525001 | | Abrasion |
| newLA3525033 | | Pain |
| newLA3525035 | | Pain with Inspiration/Expiration |
| newLA3525037 | | Puncture/Stab Wound |
| newLA3525039 | | Retraction |
| newLA3525041 | | Tenderness |
| newLA3525043 | | Gunshot Wound |
| newLA3525045 | | Swelling |
| newLA3525011 | | Burn-Blistering |

Chest Finding Location

| | |
|-----------|--|
| Value Set | ChestFindingLocation - 2.16.840.1.113883.17.3.11.119 |
|-----------|--|

| Code | Code System | Print Name |
|--------------|-------------|---------------------|
| newLA3524011 | | General - Posterior |
| newLA3524001 | | Left - Anterior |
| newLA3524003 | | Left - Posterior |
| newLA3524005 | | Right - Anterior |
| newLA3524009 | | General - Anterior |
| newLA3524013 | | Left - Side |
| newLA3524015 | | Right - Side |
| newLA3524007 | | Right - Posterior |

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 Disposition

| | |
|-----------|---|
| Value Set | CrewDisposition - 2.16.840.1.113883.17.3.11.120 |
|-----------|---|

| Code | Code System | Print Name |
|--------------|-------------|--|
| newLA4229013 | | Back in Service, Care/Support Services Refused |
| newLA4229011 | | Back in Service, No Care/Support Services Required |
| newLA4229009 | | Incident Support Services Provided (Including Standby) |
| newLA4229007 | | Assumed Primary Care from Another EMS Crew |
| newLA4229005 | | Provided Care Supporting Primary EMS Crew |
| newLA4229003 | | Initiated Primary Care and Transferred to Another EMS Crew |
| newLA4229001 | | Initiated and Continued Primary Care |

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 | Advanced emergency medical technician (AEMT) |
| LA18697-5 | LOINC | Emergency medical responder (EMR) |
| LA18698-3 | LOINC | Emergency medical technician (EMT) |

| Code | Code System | Print Name |
|---------------|-------------|---|
| LA18699-1 | LOINC | 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 |
| LA9292-9 | LOINC | Nurse Practitioner |
| LA9296-0 | LOINC | Physician Assistant |
| LA24387-5 | LOINC | Licensed Practical Nurse (LPN) |
| LA9291-1 | LOINC | Registered Nurse |
| NewLA-9925002 | LOINC | Emergency Medical Technician - Intermediate |

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 |
| NewLA-4224019NewCode | LOINC | Yes-Sepsis |

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 | Clinic |
| LA18688-4 | LOINC | Morgue/mortuary |
| LA18690-0 | LOINC | Other destination |
| LA18691-8 | LOINC | Other EMS responder (air) |
| LA18692-6 | LOINC | Other EMS responder (ground) |
| LA18693-4 | LOINC | Police/jail |
| LA24393-3 | LOINC | Freestanding Emergency Department |
| LA24392-5 | LOINC | Urgent Care |
| NewLA-4221031 | LOINC | Mental Health Facility |
| NewLA-4221027 | LOINC | Diagnostic Services |
| NewLA-4221029 | LOINC | Assisted Living Facility |
| NewLA-4221025 | LOINC | Dialysis Center |
| NewLA-4221039 | LOINC | Drug and/or Alcohol Rehabilitation Facility |
| NewLA-4221041 | LOINC | Skilled Nursing Facility |
| NewLA-4221037 | LOINC | Physical Rehabilitation Facility |

| Code | Code System | Print Name |
|---------------|-------------|-----------------------------|
| NewLA-4221035 | LOINC | Other Recurring Care Center |
| NewLA-4221033 | LOINC | Nursing Home |

Destination Ward Kind

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

| Code | Code System | Print Name |
|-----------|-------------|--------------------------------------|
| LA22808-2 | | Hospital-burn |
| LA22809-0 | | Hospital-cath lab |
| LA22810-8 | | Hospital-CCU |
| LA22824-9 | | Hospital-orthopedic |
| LA22811-6 | | Hospital-endoscopy |
| LA22812-4 | | Hospital-hospice |
| LA22813-2 | | Hospital-hyperbaric oxygen treatment |
| LA22814-0 | | Hospital-ICU |
| LA22815-7 | | Hospital-labor and delivery |
| LA22816-5 | | Hospital-medical/surgery |
| LA22817-3 | | Hospital-mental health |
| LA22818-1 | | Hospital-MICU |
| LA22819-9 | | Hospital-NICU |
| LA22820-7 | | Hospital-nursery |
| LA22821-5 | | Hospital-peds (general) |
| LA22822-3 | | Hospital-peds ICU |
| LA22823-1 | | Hospital-OR |
| LA22825-6 | | Hospital-other |
| LA22826-4 | | Hospital-outpatient bed |
| LA22827-2 | | Hospital-radiology services - MRI |
| LA22828-0 | | Hospital-radiology services - CT/PET |
| LA22829-8 | | Hospital-radiology services - x-ray |
| LA22830-6 | | Hospital-radiation |
| LA22831-4 | | Hospital-rehabilitation |
| LA22832-2 | | Hospital-SICU |
| LA24394-1 | | Hospital-Oncology |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| LA24395-8 | | 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 (Other) |
| 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 |
| NewLA-4507031 | LOINC | Flood |
| NewLA-4507033 | LOINC | Land Slide |
| NewLA-4507035 | LOINC | Winter Storm |
| NewLA-4507037 | LOINC | Tornado |
| NewLA-4507039 | LOINC | Hurricane |
| NewLA-4507029 | LOINC | Earthquake |

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 | Incomplete Address Information Provided |
| 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 |
| NewLA-2208019 | LOINC | Communication Specialist-Assignment Error |
| NewLA-2208021 | LOINC | No Receiving MD, Bed, Hospital |
| NewLA-2208023 | LOINC | Specialty Team Delay |

Dispatch Reason

| | |
|-------------|--|
| Value Set | Dispatch Reason - 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 |

| Code | Code System | Print Name |
|-------------------------|-------------|---|
| 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 |
| 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 |
| NewLA- NewLA-2301085 | LOINC | Altered Mental Status |
| NewLA-2301087 | LOINC | Intercept |
| NewLA-2301089 | LOINC | Nausea |
| NewLA-2301091 | LOINC | Vomiting |

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 |
| NewLA-3304000 | LOINC | 2 Lead ECG (pads or paddles) |

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 Crew Disposition

| | |
|-----------|--|
| Value Set | EMSCrewDisposition - 2.16.840.1.113883.17.3.11.114 |
|-----------|--|

| Code | Code System | Print Name |
|--------------|-------------|--|
| newLA4229001 | | Initiated and Continued Primary Care |
| newLA4229013 | | Back in Service, Care/Support Services Refused |
| newLA4229011 | | Back in Service, No Care/Support Services Required |

| Code | Code System | Print Name |
|--------------|-------------|--|
| newLA4229009 | | Incident Support Services Provided (Including Standby) |
| newLA4229007 | | Assumed Primary Care from Another EMS Crew |
| newLA4229003 | | Initiated Primary Care and Transferred to Another EMS Crew |
| newLA4229005 | | Provided Care Supporting Primary EMS Crew |

EMS Level Of Service

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

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

EMS Medication Administration Device

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

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

EMS Transport Disposition

| Value Set | EMSTransportDisposition - 2.16.840.1.113883.17.3.11.115 | |
|--------------|---|---|
| Code | Code System | Print Name |
| newLA4230007 | | Transport by Another EMS Unit, with a Member of This Crew |
| newLA4230005 | | Transport by Another EMS Unit |
| newLA4230011 | | Non-Patient Transport (Not Otherwise Listed) |
| newLA4230003 | | Transport by This EMS Unit, with a Member of Another Crew |
| newLA4230009 | | Patient Refused Transport |
| newLA4230013 | | No Transport |
| newLA4230001 | | Transport by This EMS Unit (This Crew Only) |

EMS Unit Disposition

| Value Set | EMS Unit Disposition - 2.16.840.1.113883.17.3.11.112 | |
|---------------------|--|---|
| Code | Code System | Print Name |
| newLA4227003 | MISSING | Cancelled on Scene |
| newLA4227005 | MISSING | Cancelled Prior to Arrival at Scene |
| newLA4227007 | MISSING | No Patient Contact |
| newLA4227009NewCode | MISSING | No Patient Found |
| newLA4227011 | MISSING | Non-Patient Incident (Not Otherwise Listed) |
| newLA4227001 | MISSING | Patient Contact Made |

Entity Name Use

| Value Set | EntityNameUse - 2.16.840.1.113883.1.11.15913 | |
|-----------|--|-------------------|
| Code | Code System | Print Name |
| A | | Artist/Stage |
| ABC | | Alphabetic |
| ASGN | | Assigned |
| C | | License |
| I | | Indigenous/Tribal |
| IDE | | Ideographic |

| Code | Code System | Print Name |
|------|-------------|------------|
| L | | Legal |
| P | | Pseudonym |
| PHON | | Phonetic |
| R | | Religious |
| SNDX | | Soundex |
| SRCH | | Search |
| SYL | | Syllabic |

Ethnicity

| | |
|------------|--|
| Value Set | Ethnicity - 2.16.840.1.113883.1.11.15836 |
| 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 |

Ethnicity Value Set

| | |
|-----------|--|
| Value Set | Ethnicity Value Set - 2.16.840.1.114222.4.11.837 |
|-----------|--|

| Code | Code System | Print Name |
|--------|-------------|------------------------|
| 2135-2 | | Hispanic or Latino |
| 2186-5 | | 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 |

Extremities Assessment Finding

| | |
|-------------|---|
| Value Set | ExtremitiesAssessmentFinding - 2.16.840.1.113883.17.3.11.36 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS extremity assessment |

| Code | Code System | Print Name |
|-----------|-------------|----------------------------------|
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17229-8 | LOINC | Crush injury |
| LA17260-3 | LOINC | Amputation-acute |
| LA17261-1 | LOINC | Amputation-previous |
| LA17262-9 | LOINC | Dislocation |
| LA17263-7 | LOINC | Edema |
| LA17264-5 | LOINC | Fracture-closed |
| LA17265-2 | LOINC | Fracture-open |
| LA17266-0 | LOINC | Motor function-abnormal/weakness |
| LA17267-8 | LOINC | Motor function-absent |
| LA17268-6 | LOINC | Motor function-normal |
| LA17269-4 | LOINC | Pulse-abnormal |
| LA17270-2 | LOINC | Pulse-absent |
| LA17271-0 | LOINC | Pulse-normal |
| LA17272-8 | LOINC | Sensation-abnormal |
| LA17273-6 | LOINC | Sensation-absent |
| LA17274-4 | LOINC | Sensation-normal |
| LA17344-5 | LOINC | Paralysis |
| LA17709-9 | LOINC | Tenderness |
| LA18220-6 | LOINC | Avulsion |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |

| Code | Code System | Print Name |
|-----------|-------------|---------------------|
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA18249-5 | LOINC | Clubbing of fingers |
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA18221-4 | LOINC | Burn-Blistering |
| LA23816-4 | LOINC | Arm Drift |
| LA7423-2 | LOINC | Contusion |
| LA17212-4 | LOINC | Gunshot wound |
| LA22440-4 | LOINC | Swelling |

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 |
| 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 |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------|
| 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 | Arm-Lower-Left |
| LA18758-5 | LOINC | Arm-Lower-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 |
| 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 |

| Code | Code System | Print Name |
|---------------|-------------|------------------------------|
| LA18786-6 | LOINC | Toe-5th (smallest)-right |
| NewLA-3515111 | LOINC | Foot-Whole Foot-Right |
| NewLA-3515101 | LOINC | Hand-Whole Hand-Left |
| NewLA-3515097 | LOINC | Arm-Whole Arm and Hand-Left |
| NewLA-3515099 | LOINC | Arm-Whole Arm and Hand-Right |
| NewLA-3515109 | LOINC | Foot-Whole Foot-Left |
| NewLA-3515107 | LOINC | Leg-Whole Leg-Right |
| NewLA-3515105 | LOINC | Leg-Whole Leg-Left |
| NewLA-3515103 | LOINC | Hand-Whole Hand-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 |
| LA18250-3 | LOINC | Cataract present |

| Code | Code System | Print Name |
|---------------|-------------|------------------------|
| 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 |
| LA7423-2 | LOINC | Contusion |
| LA18252-9 | LOINC | Glaucoma Present |
| LA17283-5 | LOINC | Hyphema |
| LA17214-0 | LOINC | Puncture/Stab Wound |
| LA22440-4 | LOINC | Swelling |
| NewLA-3518061 | LOINC | Dilated |
| NewLA-3518063 | LOINC | Pin Point |

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 |
| 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 |
| LA7423-2 | LOINC | Contusion |
| LA17229-8 | LOINC | Crush Injury |
| LA22440-4 | LOINC | Swelling |
| LA17709-9 | LOINC | Tenderness |

Final Patient Condition

| | |
|-----------|---|
| Value Set | FinalPatientCondition - 2.16.840.1.113883.17.3.11.111 |
|-----------|---|

| Code | Code System | Print Name |
|---------------|-------------|--|
| LA17696-8 | | Critical (Red) |
| LA17695-0 | | Emergent (Yellow) |
| LA17694-3 | | Lower Acuity (Green) |
| LA17697-6 | | Dead without Resuscitation Efforts (Black) |
| NewLA-4219011 | | Non-Acute/Routine |
| NewLA-4219009 | | Dead with Resuscitation Efforts (Black) |

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 |
| 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 BasicConfidentialityKind

| | |
|-----------|---|
| Value Set | HL7 BasicConfidentialityKind - 2.16.840.1.113883.1.11.16926 |
| Version | 2010-04-21 |
| Source | HL7 |

| Code | Code System | Print Name |
|------|-------------|------------|
| N | | Normal |
| R | | Restricted |

| Code | Code System | Print Name |
|------|-------------|-----------------|
| V | | Very Restricted |

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 |

HL7 LanguageAbilityMode

| | |
|------------|--|
| Value Set | HL7 LanguageAbilityMode - 2.16.840.1.113883.1.11.12249 |
| Version | 1 |
| Definition | This identifies the language ability of the individual. A value representing the method of expression of the language. |

| Code | Code System | Print Name |
|------|-------------|-------------------|
| ESGN | | Expressed signed |
| ESP | | Expressed spoken |
| EWR | | Expressed written |
| RSGN | | Received signed |
| RSP | | Received spoken |
| RWR | | Received written |

HL7 Marital Status

| | |
|------------|--|
| Value Set | HL7 Marital Status - 2.16.840.1.113883.1.11.12212 |
| Version | 1 |
| Definition | Marital Status is the domestic partnership status of a person. |

| Code | Code System | Print Name |
|------|-------------|------------|
| A | | Annulled |

| Code | Code System | Print Name |
|------|-------------|-------------------|
| D | | Divorced |
| I | | Interlocutory |
| L | | Legally Separated |
| M | | Married |
| P | | Polygamous |
| S | | Never Married |
| T | | Domestic partner |
| W | | Widowed |

HL7 Religious Affiliation

| | |
|------------|--|
| Value Set | HL7 Religious Affiliation - 2.16.840.1.113883.1.11.19185 |
| Version | 1 |
| Definition | This reflects the spiritual faith affiliation |

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 |

| Code | Code System | Print Name |
|-----------|-------------|--------------|
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA7423-2 | LOINC | Contusion |
| LA17229-8 | LOINC | Crush Injury |
| LA22440-4 | LOINC | Swelling |
| LA17709-9 | LOINC | Tenderness |

Healthcare Provider Taxonomy (HIPAA)

| | |
|-----------|--|
| Value Set | Healthcare Provider Taxonomy (HIPAA) - 2.16.840.1.114222.4.11.1066 |
|-----------|--|

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 |
| 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 CM AND PCS

| | |
|-------------|---|
| Value Set | ICD-10 CM AND PCS - 2.16.840.1.113883.17.3.11.121 |
| Description | ICD-10-CM diagnosis and ICD-10-PCS procedure values, for use in medical/surgical history. |

ICD-10 PCS

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

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 |
| 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 |

| Code | Code System | Print Name |
|---------------|-------------|--|
| 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 |
| LA18112-5 | LOINC | Extremity-lower |
| LA18113-3 | LOINC | Extremity-upper |
| LA24415-4 | LOINC | Radial-Left |
| LA24416-2 | LOINC | Radial-Right |
| LA24417-0 | LOINC | Upper Arm-Left |
| LA24418-8 | LOINC | Upper Arm-Right |
| LA24419-6 | LOINC | Venous Cutdown-Left Lower Extremity |
| LA24420-4 | LOINC | Venous Cutdown-Right Lower Extremity |
| NewLA-3913081 | LOINC | Wrist-Right |
| NewLA-3913079 | LOINC | Wrist-Left |

Initial Patient Condition

| | |
|-------------|--|
| Value Set | InitialPatientCondition - 2.16.840.1.113883.17.3.11.59 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Change in acuity of patient condition |

| Code | Code System | Print Name |
|---------------|-------------|--|
| LA17696-8 | LOINC | Critical (Red) |
| LA17695-0 | LOINC | Emergent (Yellow) |
| LA17694-3 | LOINC | Lower Acuity (Green) |
| LA17697-6 | LOINC | Dead without Resuscitation Efforts (Black) |
| NewLA-4219011 | LOINC | Non-Acute/Routine |
| NewLA-2813009 | LOINC | Non-Acute/Routine |

Injury Risk Factor

| | |
|-------------|--|
| Value Set | InjuryRiskFactor - 2.16.840.1.113883.17.3.11.4 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Circumstance affecting likelihood of injury |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA17348-6 | LOINC | Fall adults: > 20 ft. (one story is equal to 10 ft.) |
| LA17349-4 | LOINC | Fall children: > 10 ft. or 2-3 times the height of the child |
| LA17350-2 | LOINC | Motorcycle crash > 20 mph |
| LA17352-8 | LOINC | Crash death in same passenger compartment |
| LA17353-6 | LOINC | Crash ejection (partial or complete) from vehicle |
| LA17357-7 | LOINC | Crash intrusion: > 12 in. occupant site; > 18 in. any site |
| LA17360-1 | LOINC | Auto v. pedestrian/bicyclist thrown, run over, or > 20 MPH impact |
| LA18124-0 | LOINC | Crash vehicle telemetry data (AACN) consistent with high risk of injury |

LOINC

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

Language

| | |
|------------|---|
| Value Set | Language - 2.16.840.1.113883.1.11.11526 |
| Source | Internet RFC 4646 |
| Source URL | http://www.loc.gov/standards/iso639-2/php/code_list.php |
| Definition | A value set of codes defined by Internet RFC 4646 (replacing RFC 3066). Please see ISO 639 language code set maintained by Library of Congress for enumeration of language codes. |

Language Ability Proficiency

| Value Set | LanguageAbilityProficiency - 2.16.840.1.113883.1.11.12199 | |
|-----------|---|------------|
| Code | Code System | Print Name |
| E | | Excellent |
| F | | Fair |
| G | | Good |
| P | | Poor |

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 |
| LA9343-0 | LOINC | Unresponsive |

Lung Finding

| | |
|-----------|---|
| Value Set | LungFinding - 2.16.840.1.113883.17.3.11.116 |
|-----------|---|

| Code | Code System | Print Name |
|--------------|-------------|---------------------------------|
| newLA3523001 | | Breath Sounds-Absent |
| newLA3523003 | | Breath Sounds-Decreased |
| newLA3523013 | | Normal |
| newLA3523005 | | Breath Sounds-Equal |
| newLA3523007 | | Breath Sounds-Normal |
| newLA3523011 | | Increased Respiratory Effort |
| newLA3523031 | | Wheezing-Inspiratory |
| newLA3523009 | | Foreign Body |
| newLA3523017 | | Pain |
| newLA3523019 | | Pain with Inspiraton/Expiration |
| newLA3523021 | | Rales |
| newLA3523023 | | Rhonchi |
| newLA3523015 | | Not Done |
| newLA3523027 | | Stridor |
| newLA3523029 | | Wheezing-Expiratory |
| newLA3523025 | | Rhonchi/Wheezing |

Lung Finding Location

| | |
|-----------|---|
| Value Set | LungFindingLocation - 2.16.840.1.113883.17.3.11.117 |
|-----------|---|

| Code | Code System | Print Name |
|--------------|-------------|------------|
| newLA3522003 | | Right |
| newLA3522001 | | Left |
| newLA3522005 | | Bilateral |

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 |

| Code | Code System | Print Name |
|--------|-----------------------------|------------------|
| C38255 | FDA Route of Administration | Intraocular |
| C38276 | FDA Route of Administration | Intravenous |
| 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 |
| Definition | Specifications for site of substance administration when Route is insufficiently specific |

| Code | Code System | Print Name |
|-----------|-------------|---|
| 280361007 | | Tracheostomy stoma |
| 15562006 | | 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 Clinical Drug Name Value Set

| | |
|-------------|---|
| Value Set | Medication Clinical Drug Name Value Set - 2.16.840.1.113883.3.88.12.80.17 |
| Description | Clinical drug names http://phinvals.cdc.gov/vads/ViewValueSet.action?id=239BEF3E-971C-DF11-B334-0015173D1785 |

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 |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| 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 |
| 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 |
| LA6560-2 | LOINC | Confused |
| LA6630-3 | LOINC | Not done |
| LA7438-0 | LOINC | Hallucinations |
| LA9343-0 | LOINC | Unresponsive |
| LA6150-2 | LOINC | Agitation |
| LA23818-0 | LOINC | Somnolent |
| LA17666-1 | LOINC | Stupor |
| NewLA-3519039 | LOINC | Psychologically Impaired |
| NewLA-3519037 | LOINC | Pharmacologically Sedated |
| NewLA-3519043 | LOINC | State of emotional shock and stress, unspecified |
| NewLA-3519029 | LOINC | Altered mental status, unspecified |
| NewLA-3519031 | LOINC | Developmentally Impaired |
| NewLA-3519035 | LOINC | Pharmacologically Paralyzed |
| NewLA-3519041 | LOINC | Slowness and poor responsiveness |
| NewLA-3519045 | LOINC | Strange and inexplicable behavior |
| NewLA-3519047 | LOINC | Uncooperative |
| NewLA-3519049 | LOINC | Unspecified coma |
| NewLA-3519033 | LOINC | Disorientation, unspecified |

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 |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA18685-0 | LOINC | Transmission with remote interpretation |

NEMESIS

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

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 |
| 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 |

| Code | Code System | Print Name |
|-----------|-------------|------------|
| LA7423-2 | LOINC | Contusion |
| LA17709-9 | LOINC | Tenderness |
| LA18225-5 | LOINC | Deformity |

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 |
|-----------|-------------|------------------------------|
| 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 |
| 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 |

| Code | Code System | Print Name |
|---------------|-------------|----------------|
| NewLA-3520026 | LOINC | Status Seizure |
| NewLA-3520055 | LOINC | Other Seizures |

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://nemesis.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 |
| LA18284-2 | LOINC | Renal |
| LA18285-9 | LOINC | Reproductive |
| LA9534-4 | LOINC | Behavioral / psychiatric disorder |

Patient Engagement

| Value Set | PatientEngagement - 2.16.840.1.113883.17.3.11.113 | |
|--------------|---|-------------------------------------|
| | | |
| Code | Code System | Print Name |
| newLA4228005 | | Patient Evaluated, No Care Required |

| Code | Code System | Print Name |
|--------------|-------------|-------------------------------------|
| newLA4228007 | | Patient Refused Evaluation/Care |
| newLA4228003 | | Patient Evaluated and Refused Care |
| newLA4228001 | | Patient Evaluated and Care Provided |
| newLA4228009 | | Patient Support Services Provided |

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 |

| Code | Code System | Print Name |
|-----------|-------------|--------------|
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA17229-8 | LOINC | Crush Injury |
| LA7423-2 | LOINC | Contusion |
| LA14123-6 | LOINC | Unstable |

Postal Address Use

| | |
|-----------|---|
| Value Set | PostalAddressUse - 2.16.840.1.113883.1.11.10637 |
|-----------|---|

| Code | Code System | Print Name |
|------|-------------|------------------------|
| BAD | | bad address |
| DIR | | direct |
| H | | home address |
| HP | | primary home |
| HV | | vacation home |
| PHYS | | physical visit address |
| PST | | postal address |
| PUB | | public |
| TMP | | temporary |
| WP | | work place |

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 |
| LA24406-3 | LOINC | Yes, Weeks Unknown |

Primary Hospital Capability

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

| Code | Code System | Print Name |
|---------------|-------------|---|
| LA22833-0 | | Behavioral health |
| LA22834-8 | | Burn center |
| LA22835-5 | | Critical access hospital |
| LA22836-3 | | Hospital - general |
| LA22837-1 | | Neonatal center |
| LA22838-9 | | Pediatric center |
| LA22842-1 | | Rehabilitation center |
| LA22843-9 | | Trauma center level 1 |
| LA22844-7 | | Trauma center level 2 |
| LA22845-4 | | Trauma center level 3 |
| LA22846-2 | | Trauma center level 4 |
| LA22847-0 | | Trauma center level 5 |
| LA22848-8 | | Cardiac-STEMI/PCI Capable |
| LA22849-6 | | Cardiac-STEMI/PCI Capable (24/7) |
| LA22850-4 | | Cardiac-STEMI/Non-PCI Capable |
| NewLA-9908037 | | Stroke-Acute Stroke Ready Hospital (ASRH) |
| NewLA-9908039 | | Stroke-Primary Stroke Center (PSC) |
| NewLA-9908041 | | Stroke-Thrombectomy-Capable Stroke Center (TSC) |
| NewLA-9908043 | | Stroke-Comprehensive Stroke Center (CSC) |
| NewLA-9908045 | | Cancer Center |
| NewLA-9908047 | | Labor and Delivery |

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 |

| Code | Code System | Print Name |
|-----------|-------------|-----------------------------------|
| 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 |
| 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) |

| Code | Code System | Print Name |
|-----------|-------------|--|
| 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 |
| 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 |
| LA24135-8 | LOINC | Exposure-carbon monoxide |
| 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 |

| Code | Code System | Print Name |
|-----------|-------------|--|
| 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 |
| 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 |
| LA23845-3 | 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) |

| Code | Code System | Print Name |
|-----------|-------------|--|
| 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 |
| 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 |

| Code | Code System | Print Name |
|-----------|-------------|---|
| 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 |
| LA23827-1 | LOINC | Cardiac Arrest-Determination of Death / Withholding Resuscitative Efforts |
| LA24138-2 | LOINC | Exposure-Smoke Inhalation |

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) |

| Code | Code System | Print Name |
|-----------|-------------|---|
| 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 Category

| | |
|------------|--|
| Value Set | ProviderCategory - 2.16.840.1.113883.17.3.11.110 |
| Definition | Classification of person, EMS or otherwise, providing care |

| Code | Code System | Print Name |
|---------------|-------------|--|
| NewLA-3006001 | | Family Member |
| NewLA-3006003 | | First Responder (Fire, Law, EMS) |
| NewLA-3006005 | | Healthcare Professional (Non-EMS) |
| NewLA-3006007 | | Lay Person (Non-Family) |
| NewLA-3006009 | | Other EMS Professional (not part of dispatched response) |

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 |

| Code | Code System | Print Name |
|-----------|-------------|-------------------------------------|
| 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 | Advanced emergency medical technician (AEMT) |
| LA18697-5 | LOINC | Emergency medical responder (EMR) |
| LA18698-3 | LOINC | Emergency medical technician (EMT) |
| LA18699-1 | LOINC | 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 |
| LA24387-5 | LOINC | Licensed Practical Nurse (LPN) |
| LA9292-9 | LOINC | Nurse Practitioner |
| LA9296-0 | LOINC | Physician Assistant |
| LA9291-1 | LOINC | Registered Nurse |
| NewLA-9905051 | LOINC | Fire Personnel (non EMS) |
| NewLA-9905049 | LOINC | Family Member |
| NewLA-9905047 | LOINC | Law Enforcement |
| NewLA-9905045 | LOINC | Lay Person |
| NewLA-9905043 | LOINC | Patient |
| NewLA-9905002 | LOINC | Emergency Medical Technician - Intermediate |

Race

| | |
|-----------|-------------------------------------|
| Value Set | Race - 2.16.840.1.113883.1.11.14914 |
| Version | 1 |

| | |
|------------|---|
| Definition | A Value Set of codes for Classifying data based upon race. Race is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for race reporting. Any code descending from the Race concept (1000-9) in that terminology may be used in the exchange. |
|------------|---|

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://phinvads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11-B38D-00188B398520 |

| Code | Code System | Print Name |
|--------|-------------|---|
| 1002-5 | MISSING | American Indian or Alaska Native |
| 2028-9 | MISSING | Asian |
| 2054-5 | MISSING | Black or African American |
| 2076-8 | MISSING | Native Hawaiian or Other Pacific Islander |
| 2131-1 | MISSING | Other Race |
| 2106-3 | MISSING | 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 |
| Definition | Rationale for not attempting to resuscitate a patient |

| Code | Code System | Print Name |
|-----------|-------------|----------------------|
| LA17063-1 | | Considered futile |
| LA17064-9 | | DNR orders |
| LA17065-6 | | 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 |
| LA17400-5 | LOINC | STEMI/acute cardiac |
| LA17401-3 | LOINC | Traumatic brain injury |
| LA7318-4 | LOINC | Burn |
| LA9535-1 | LOINC | Cardiac/MI |
| 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 |
| LA24422-0 | LOINC | Flight Planning |
| LA24421-2 | LOINC | Mechanical Issue-Unit, Equipment, etc. |

Response Mode Qualifier

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

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA22798-5 | | Intersection Navigation-Against Normal Light Patterns |
| LA22799-3 | | Intersection Navigation-With Automated Light Changing Technology |
| LA22800-9 | | Intersection Navigation-With Normal Light Patterns |
| LA22801-7 | | Speed-Enhanced per Local Policy |
| LA22802-5 | | Speed-Normal Traffic |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA22803-3 | | Lights and Sirens |
| LA22804-1 | | Lights and No Sirens |
| LA22805-8 | | No Lights or Sirens |
| LA22806-6 | | Initial No Lights or Sirens, Upgraded to Lights and Sirens |
| LA22807-4 | | Initial Lights and Sirens, Downgraded to No Lights or Sirens |
| LA22869-4 | | Unscheduled |
| LA22866-0 | | Scheduled |

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 |

SNOMED CT

| | |
|-----------|-----------|
| Value Set | SNOMED CT |
|-----------|-----------|

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 |
| NewLA-2907033 | LOINC | Unable to Determine |

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 |
| LA24421-2 | 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 | Emergency Response (Primary Response Area) |
| LA18716-3 | LOINC | Emergency Response (Intercept) |
| LA18717-1 | LOINC | Hospital-to-Hospital Transfer |
| LA18719-7 | LOINC | Mutual aid |
| LA18720-5 | LOINC | Public assistance |
| NewLA-2205021 | LOINC | Support Services |

| Code | Code System | Print Name |
|---------------|-------------|---|
| NewLA-2205009 | LOINC | Emergency Response (Mutual Aid) |
| NewLA-2205015 | LOINC | Hospital to Non-Hospital Facility Transfer |
| NewLA-2205017 | LOINC | Non-Hospital Facility to Non-Hospital Facility Transfer |
| NewLA-2205019 | LOINC | Non-Hospital Facility to Hospital Transfer |
| NewLA-2205007 | LOINC | Other Routine Medical Transport |
| NewLA-2205023 | LOINC | Non-Patient Care Rescue/Extrication |
| NewLA-2205025 | LOINC | Crew Transport Only |
| NewLA-2205027 | LOINC | Transport of Organs or Body Parts |
| NewLA-2205029 | LOINC | Mortuary Services |
| NewLA-2205031 | LOINC | Mobile Integrated Health Care Encounter |
| NewLA-2205033 | LOINC | Evaluation for Special Referral/Intake Programs |
| NewLA-2205035 | LOINC | Administrative Operations |

Skin Assessment

| | |
|-------------|---|
| Value Set | SkinAssessment - 2.16.840.1.113883.17.3.11.25 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Finding resulting from EMS skin assessment |

| Code | Code System | Print Name |
|-----------|-------------|--------------------|
| LA15475-9 | LOINC | Cold |
| LA17197-7 | LOINC | Clammy |
| LA17198-5 | LOINC | Cyanotic |
| LA17199-3 | LOINC | Dry |
| LA17200-9 | LOINC | Red (erythematous) |
| LA17201-7 | LOINC | Flushed |
| LA17202-5 | LOINC | Hot |
| LA17203-3 | LOINC | Jaundiced |
| LA17204-1 | LOINC | Lividity |
| LA17205-8 | LOINC | Mottled |
| LA17206-6 | LOINC | Pale |
| LA17207-4 | LOINC | Warm |
| LA18217-2 | LOINC | Diaphoretic |
| LA18218-0 | LOINC | Poor turgor |
| LA18219-8 | LOINC | Tenting |

| Code | Code System | Print Name |
|-----------|-------------|---|
| LA6626-1 | LOINC | Normal |
| LA6630-3 | LOINC | Not done |
| LA23806-5 | LOINC | Capillary Nail Bed Refill less than 2 seconds |
| LA23807-3 | LOINC | Capillary Nail Bed Refill 2-4 seconds |
| LA23808-1 | LOINC | Capillary Nail Bed Refill more than 4 seconds |

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 Prehospital Stroke Scale (CPSS) |
| LA17112-6 | LOINC | Miami Emergency Neurologic Deficit Exam (MEND) |
| LA17113-4 | LOINC | NIH Stroke Scale (NIHSS) |
| LA18300-6 | LOINC | Other stroke scale type |
| LA3774-2 | LOINC | Massachusetts Stroke Scale (MSS) |
| LA24430-3 | LOINC | FAST-ED |
| NewLA-3330023 | LOINC | Los Angeles Motor Score (LAMS) |
| NewLA-3330021 | LOINC | Rapid Arterial occlusion Evaluation (RACE) |
| NewLA-3330019 | LOINC | Melbourne Ambulance Stroke Screen (MASS) |
| NewLA-3330017 | LOINC | Ontario Prehospital Stroke Scale (OPSS) |
| NewLA-3330015 | LOINC | Boston Stroke Scale (BOSS) |
| NewLA-3330004 | LOINC | Los Angeles Prehospital Stroke Screen (LAPSS) |

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 |
| 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 |
| LA24424-6 | LOINC | Patient Condition Change (e.g., Unit Stopped) |

Transport Disposition

| | |
|-----------|--|
| Value Set | TransportDisposition - 2.16.840.1.113883.17.3.11.115 |
|-----------|--|

| Code | Code System | Print Name |
|--------------|-------------|---|
| newLA4230013 | | No Transport |
| newLA4230011 | | Non-Patient Transport (Not Otherwise Listed) |
| newLA4230009 | | Patient Refused Transport |
| newLA4230007 | | Transport by Another EMS Unit, with a Member of This Crew |
| newLA4230005 | | Transport by Another EMS Unit |
| newLA4230003 | | Transport by This EMS Unit, with a Member of Another Crew |
| newLA4230001 | | Transport by This EMS Unit (This Crew Only) |

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 |
| Definition | Techniques for managing transport speed |

| Code | Code System | Print Name |
|-----------|-------------|--|
| LA22798-5 | | Intersection Navigation-Against Normal Light Patterns |
| LA22799-3 | | Intersection Navigation-With Automated Light Changing Technology |
| LA22800-9 | | Intersection Navigation-With Normal Light Patterns |
| LA22801-7 | | Speed-Enhanced per Local Policy |
| LA22802-5 | | Speed-Normal Traffic |
| LA22803-3 | | Lights and Sirens |
| LA22804-1 | | Lights and No Sirens |
| LA22805-8 | | No Lights or Sirens |
| LA22807-4 | | Initial Lights and Sirens, Downgraded to No Lights or Sirens |
| LA22806-6 | | 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 |
| 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 |
| LA24425-3 | LOINC | EMS Crew Accompanies Patient for Facility Procedure |
| LA17603-4 | LOINC | Transport unavailable |

Unit Disposition

| Value Set | Unit Disposition - 2.16.840.1.113883.17.3.11.112 | |
|---------------------|--|---|
| Code | Code System | Print Name |
| newLA4227003 | MISSING | Cancelled on Scene |
| newLA4227005 | MISSING | Cancelled Prior to Arrival at Scene |
| newLA4227007 | MISSING | No Patient Contact |
| newLA4227009NewCode | MISSING | No Patient Found |
| newLA4227011 | MISSING | Non-Patient Incident (Not Otherwise Listed) |
| newLA4227001 | MISSING | Patient Contact Made |

Unit Equipment Capability

| | | |
|-------------|--|--|
| Value Set | UnitEquipmentCapability - 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 |
|---------------|-------------|--|
| LA23840-4 | LOINC | Air Transport-Helicopter |
| LA23841-2 | LOINC | Air Transport-Fixed Wing |
| NewLA-2207017 | LOINC | Ground Transport (BLS Equipped) |
| NewLA-2207019 | LOINC | Ground Transport (Critical Care Equipped) |
| NewLA-2207021 | LOINC | Non-Transport-Medical Treatment (ALS Equipped) |
| NewLA-2207023 | LOINC | Non-Transport-Medical Treatment (BLS Equipped) |
| NewLA-2207025 | LOINC | Wheel Chair Van/Ambulette |
| NewLA-2207027 | LOINC | Non-Transport-No Medical Equipment |
| NewLA-2207015 | LOINC | Ground Transport (ALS Equipped) |

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.) |
| 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 | Case | Solution |
|--|------|---------------------------------|--|
| Unable to Complete | null | observation | Observation.value = null (NI); obs.text = "unable to complete" |
| Unable to Complete | null | medication | SBADM.value = null (NI); SBADM.text = "unable to complete" |
| Unable to Complete | null | procedure | PROC.value = null (NI); PROC.text = "unable to complete" |
| Refused | null | observation (including history) | Observation.value = null (ASKU) |
| Refused | neg | medication given | negate specific medication; put "refused" value in MedicationNotAdministeredReason observation |
| Refused | neg | procedure performed | negate specific procedure; put "refused" value in ReasonProcedureNotAttempted observation |
| Exam finding not present (measurement) | null | observation | Observation.value = null (NAV) |

| | | | |
|--|------|--------------------------------|---|
| Exam finding not present (presence) | neg | observation | negate specific observation value |
| No known drug allergies | none | observation: negation value | Use Boolean observation ExistenceOfDrugAllergy |
| None reported | none | observation: alcohol | Use Boolean observation ExistenceOfDrugUseIndication |
| No anticoagulants or bleeding disorder | none | medication | Use Boolean observation PatientOnAnticoagulants; negate HistoryOfCondition observation for D66, D67, D68 |
| Contraindication noted | neg | medication, procedure | negate specific procedure or medication; use related reason observation to record reason |
| Denied by order | neg | medication, procedure | negate specific procedure or medication; use related reason observation to record reason |
| Medication allergy | neg | medication | negate specific procedure or medication; use related reason observation to record reason |
| Medication already taken | neg | medication | negate specific procedure or medication; use related reason observation to record reason |
| Null Values | | | |
| Not Applicable | null | | null: NA |
| Not Recorded | null | | null: NI; add detail to obs.text or proc.text |
| Not Reporting | null | | null: NI; add detail to obs.text or proc.text |

UCUM Unit Mapping

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

| NEMESIS Question | NEMESIS Code | Description | PQ QTY | PQ Units (UCUM) | Supporting values |
|------------------------|--------------|---|--------|-----------------|-------------------|
| emedications.063706001 | | Grams | Yes | g | |
| emedications.063706055 | | Milligrams per Hour (mg/hr) | Yes | mg/h | |
| emedications.063706049 | | Units | Yes | {unit} | |
| emedications.063706051 | | Units per Kilogram per Hour (units/kg/hr) | Yes | /kg/h | |
| emedications.063706031 | | Centimeters (cm) | Yes | cm | |
| emedications.063706053 | | Units per Kilogram (units/kg) | Yes | {unit}/kg | |

| | | | | |
|------------------------|------------------------------------|-----|-----------|--|
| emedications.063706047 | Micrograms per Kilogram (mcg/kg) | Yes | ug/kg | |
| emedications.063706045 | Units per Hour (units/hr) | Yes | {unit}/h | |
| emedications.063706043 | Puffs | Yes | 1 | substanceAdministration.administrationUnitCode = PUFF; codeSystem = 2.16.840.1.113883.1.11.14570 |
| emedications.063706041 | Milligrams per Minute (mg/min) | Yes | mg/min | |
| emedications.063706039 | Milligrams per Kilogram (mg/kg) | Yes | mg/kg | |
| emedications.063706037 | Micrograms per Minute (mcg/min) | Yes | ug/min | |
| emedications.063114017 | Liters Per Minute (LPM [gas]) | Yes | L/min | |
| emedications.063114005 | Drops (gtts) | Yes | [drp] | |
| emedications.063706003 | Inches | Yes | [in_i] | |
| emedications.063706005 | International Units | Yes | [iU] | |
| emedications.063706007 | Keep Vein Open (To Keep Open) | No | | substanceAdministration.value.nullFlavor = QS (sufficient quantity); codeSystem = 2.16.840.1.113883.5.1008 |
| emedications.063706011 | Liters Per Minute | Yes | L/min | |
| emedications.063706013 | MDI Puffs | Yes | 1 | substanceAdministration.administrationUnitCode = PUFF; codeSystem = 2.16.840.1.113883.1.11.14570; originalText="MDI Puffs" |
| emedications.063706015 | Micrograms | Yes | ug | |
| emedications.063706017 | Micrograms per Kilogram per Minute | Yes | ug/kg/min | |
| emedications.063706019 | Milliequivalents | Yes | meq | |
| emedications.063706021 | Milligrams | Yes | mg | |
| emedications.063706023 | Milligrams Per Kilogram Per Minute | Yes | mg/kg/min | |
| emedications.063706025 | Milliliters | Yes | mL | |
| emedications.063706027 | Milliliters Per Hour | Yes | mL/h | |

| | | | | |
|------------------------|--------------------------------------|-----|-----------|--|
| emedications.063706029 | 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.

Note that all codes are drawn from code system FDA Route of Administration (2.16.840.1.113883.3.26.1.1.1).

| NEMESIS value | Standard Code | Standard Text | Other Parameters |
|---------------|---------------|--------------------------|---|
| Auto Injector | C38676 | Percutaneous | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/Device/ code @ originalText = "Auto Injector" |
| BVM | C38216 | Respiratory (Inhalation) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/Device/ code @ originalText = "BVM" |

| NEMESIS value | Standard Code | Standard Text | Other Parameters |
|------------------------------|---------------|-----------------------------|---|
| CPAP | C38216 | Respiratory (Inhalation) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/Device/ code @ originalText = "CPAP" |
| Endotracheal tube | C38208 | ENDOTRACHEAL | |
| Gastrostomy/ Feeding Tube | C38246 | INTRAGASTRIC | |
| Gastrostomy tube | C38246 | INTRAGASTRIC | |
| Inhalation | C38216 | RESPIRATORY (INHALATION) | |
| Intraarterial | C38222 | INTRA-ARTERIAL | |
| Intranasal | C38284 | NASAL | |
| Intramuscular | C28161 | INTRAMUSCULAR | |
| Intraocular | C38255 | INTRAOCULAR | |
| Intraosseous | C38253 | INTRAMEDULLARY | |
| Intravenous | C38276 | INTRAVENOUS | |
| IV Pump | C38276 | Intravenous | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/Device/ code @ originalText = "IV Pump" |

| NEMESIS value | Standard Code | Standard Text | Other Parameters |
|-------------------|---------------|-----------------------------|---|
| Nasal Cannula | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "39849001" @codeSystem = "2.16.840.1.113883.6.96" @displayName="nasal oxygen cannula" |
| Nasal | C38284 | NASAL | |
| Nasal prongs | 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 | C38285 | NASOGASTRIC | |
| Nasotracheal Tube | C38208 | ENDOTRACHEAL | approachSiteCode @value = "15562006" @codeSystem = "2.16.840.1.113883.6.96" @displayName="structure of respiratory region of nose" |
| Nebulizer | C38216 | Respiratory (Inhalation) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "334947002" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Nebulizer" |

| NEMSIS value | Standard Code | Standard Text | Other Parameters |
|----------------------|---------------|-----------------------------|--|
| Non-Rebreather Mask | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode=""DEV"" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode=""MANU"" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = ""427591007"" @codeSystem = ""2.16.840.1.113883.6.96"" @displayName=""nonrebreather oxygen mask"" |
| Ophthalmic | C38287 | OPHTHALMIC | |
| Oral | C38288 | ORAL | |
| Other/ miscellaneous | C38290 | OTHER | |
| Otic | C38192 | AURICULAR (OTIC) | |
| Re-breather mask | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode=""DEV"" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode=""MANU"" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = ""425926003"" @codeSystem = ""2.16.840.1.113883.6.96"" @displayName=""partial rebreather oxygen mask"" |
| Rectal | C38295 | RECTAL | |
| Subcutaneous | C38299 | SUBCUTANEOUS | |
| Sublingual | C38300 | SUBLINGUAL | |
| Topical | C38304 | TOPICAL | |
| Tracheostomy | C38308 | TRANSTRACHEAL | |
| Transdermal | C38305 | TRANSDERMAL | |

| NEMESIS value | Standard Code | Standard Text | Other Parameters |
|---------------------------|---------------|----------------|--|
| Umbilical Artery Catheter | C38222 | Intra-Arterial | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "258623008" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Vascular catheter" approachSiteCode @value = "50536004" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Structure of umbilical artery" |
| Umbilical Venous Catheter | C38276 | Intravenous | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "258623008" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Vascular catheter" approachSiteCode @value = "367567000" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Structure of umbilical vein" |
| Urethral | C38271 | URETHRAL | |

| NEMSIS value | Standard Code | Standard Text | Other Parameters |
|--------------|---------------|-----------------------------|--|
| Ventimask | C38216 | RESPIRATORY (INHALATION) | SubstanceAdministration/ Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ ParticipantRole/ classCode="MANU" (manufactured product) SubstanceAdministration/ Participant/ ParticipantRole/ Device/code @ value = "428285009" @codeSystem = "2.16.840.1.113883.6.96" @displayName="Venturi mask" |
| Wound | 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 Oakham 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"/>
  <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>
    </assignedCustodian>
  </custodian>
</participant typeCode="DST">
```

```

<associatedEntity classCode="SDLOC">
  <code code="IA11504-0" 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="IA18715-5" displayName="911 response (scene)" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <effectiveTime value="201201011545+0600"/>
    <performer typeCode="PRF">
      <functionCode code="IA18712-2" 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="IA18703-1" displayName="EMT-paramedic" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <addr>
          <streetAddressLine>1000 EMT Lane</streetAddressLine>
          <city>Duluth</city>
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          <postalCode>55803</postalCode>
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        <assignedPerson>
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            <given>Renee</given>
            <family>Responder</family>
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          <state>MN</state>
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            </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>
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        <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"/>
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        </thead>
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            <td>No information</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>
  </section>

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        <tr>
          <td>Patient on anticoagulants</td>
          <td>No information</td>
        </tr>
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    <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>
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        </thead>
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          <tr>
            <td>Existence of drug allergy</td>
            <td>No information</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>
  </entry>
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    <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>
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    <code code="67843-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS Social History Section"/>
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          </tr>
          <tr>
            <td>Alcohol - drug use</td>
            <td>Smell of alcohol on breath</td>
            <td></td>
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            <td>HeadAssessmentFinding</td>
            <td>Normal</td>
            <td></td>
          </tr>
        </tbody>
      </table>
    </text>
  </section>

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|  |  |
| --- | --- |
| <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>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> |  |
| <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> |  |

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    <code code="67517-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Last oral intake"/>
    <value xsi:type="TS" nullFlavor="NI"/>
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    <code code="30525-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient age"/>
    <value xsi:type="PQ" value="28" unit="a"/>
  </observation>
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  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.17.3.10.1.82"/>
    <code code="67523-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Contraindications to thrombolytic use"/>
    <value xsi:type="CD" nullFlavor="NI"/>
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    <value xsi:type="CD" code="LA17711-5" displayName="Unconscious" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
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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>
          </tr>
        </thead>
        <tbody>
          <tr>
            <td>2012 01 01 1604</td>
            <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>
          </tr>
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            <code code="LA18703-1" displayName="EMT-paramedic" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
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              <code code="425926003" codeSystem="2.16.840.1.113883.6.5" displayName="partial rebreather oxygen mask" codeSystemName="SNOMED CT"/>
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    </thead>
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        <td>Nasopharyngeal airway insertion</td>
        <td>true</td>
        <td>true</td>
        <td>None</td>
        <td>Law enforcement</td>
        <td>Improved</td>
        <td>Airway confirmation: No information</td>
      </tr>
      <tr>
        <td>2012 01 01 1602</td>
        <td>Cervical collar placement</td>
        <td>true</td>
        <td>true</td>
        <td>None</td>
        <td>Law enforcement</td>
        <td>Improved</td>
        <td></td>
      </tr>
      <tr>
        <td>2012 01 01 1604</td>
        <td>Long spine board</td>
        <td>false</td>
        <td>true</td>
        <td>None</td>
        <td>EMT-basic: 42742618</td>
        <td>Unchanged</td>
        <td></td>
      </tr>
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        <td>2012 01 01 1604</td>
        <td>Needle chest decompression</td>
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        <td>true</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>
            <td>Protocol age category</td>
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            <td></td>
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            <td>Scene</td>
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          <tr>
            <td>Transport</td>
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          <tr>
            <td>Turnaround</td>
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    <tbody>
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        <td>46.786939 deg</td>
        <td>-92.098194 deg</td>
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  </table>

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      <td>No information</td>
      <td>No information</td>
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</tr>
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      <paragraph>Safety equipment: Lap belt without shoulder belt</paragraph>
      <paragraph>Airbag deployment: No airbag deployed</paragraph>
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- [SNOMED CT®](#) : SNOMED Clinical Terms SNOMED International Organization.
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- HL7 EMS Domain Analysis Model, available from HL7 or via the HL7 wiki [HL7 wiki](#).

