

**HL7 CDA® R2 Implementation Guide:** **Emergency Medical Services;**

**Patient Care Report**

**Release 3 - US Realm**

**April 2023 with January 2025 Errata**

**Sponsored by: Clinical Interoperability Committee Work Group**

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## 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 NEMSIS data dictionary is available at [www.nemsis.org.](http://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.

#### 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.](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)](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 Officials (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 54 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, 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.

#### Approach

We first transformed the NEMSIS 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 "level one" (attachment only, no structured data in body)

was superseded by a "level three" (structured clinical statements) guide in 2016. In the last five years, NEMSIS has collected feedback from implementers and providers and revised their specification; the current guide brings the CDA specification up to date with the NEMSIS 3.5 data set.

The guide aligns with the Consilidated CDA work by leveraging the Consolidated header. Consolidated constraints on the header are inherited but not repeated in this guide. Standard codes provided by LOINC can identify other alignments, both with the Consolidated project and with Emergency Department specification *Data Elements for Emergency Department Systems* (DEEDS).

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 [*ucum.org*](http://ucum.org/). Interface values that are not actual physical units are handled differently: see appendix *UCUM Unit Mapping*.

##### Pertinent Negatives

For some items in this guide, negated entries have clear boundaries. A negated procedure in the Procedures Performed section clearly refers to the scope of the encounter, whereas a similar negation in the History section implies it's never been done. In other cases it can be difficult to distinguish a record that suggests absence by not recording presence from a null value.

We follow CDA guidance in using RIM attributes for observations of absence, but we also record explicit observations of presence or absence in four cases where this confusion seems likely:

* Existence Of Drug Use Indication
* Existence Of History Of Condition Or Surgery
* Existence Of Known Drug Allergy
* Existence Of Known Non Drug Allergy
* Currently On Medication

Several items also include reason observations for negatives, especially for interventions. A map of NEMSIS pertinent negatives to CDA designs can be found in the appendix *Nulls and Negative Action Values*.

##### Null Value Mapping

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

NEMSIS 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 the appendix *Nulls and Negative Action Values*.

##### Cardinality

CDA provides several patterns for supporting cardinality. If a report is allowed to have many values for an element, that can be represented in CDA by the cardinality of the Observation.value, the Component.Observation, the Organizer.Component, the Section.Organizer, or the StructuredBody.section. We have chosen to support cardinality at the lowest level appropriate. I.e., unconstrained multiplicity will be supported at the Observation.value level. If the value is specific, e.g., to a body site, then we also support multiple Observations in the component. In this case the Component may have multiple Observations for different sites, each Observation having potentially multiple values. If there are groups of different Observations taken at different times, this would be supported with multiple Components.

Components and Observations should not be instantiated without content. I.e., a Component will always contain at least one Observation or other clinical statement, and an Observation will always contain a value (unless there is a reason for an explanatory null flavor value).

**Examples**

A simple multiple valued element in an organizer or section (e.g., Skin Assessment)

* [Organizer] MAY contain zero or one [0..1] component such that it
* SHALL contain exactly one [1..1] observation such that it
* SHALL contain at least one [1..\*] value

A site-specific multiple Observation (e.g., Chest Assessment)

* [Organizer] MAY contain zero or one [0..1] component such that it
* SHALL contain at least one [1..\*] observation such that it
* SHALL contain at least one [1..\*] value A time-specific group (e.g., Vitals)
* [Organizer] MAY contain one or more [0..\*] component such that it
* SHALL contain (1..1 or 1..\*, as appopriate) observation such that it
* SHALL contain at least one [1..\*] value

#### 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 the HL7 Governance and Operations Manual, [*http://www.hl7.org/documentcenter/public/membership/*](http://www.hl7.org/documentcenter/public/membership/HL7_Governance_and_Operations_Manual.pdf)[*HL7\_Governance\_and\_Operations\_Manual.pdf*](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.

##### Open Specification

The NEMSIS TAC has prioritized data elements in this implementation guide to those commonly exchanged between a transporting EMS agency and a receiving emergency department (the EMS-to-ED communication path). This collection of elements is not exhaustive, as concision is an important quality in communication. However, some stakeholders have suggested that occupational data would also be of interest. Since CDA is an open specification, other templates can be included, and those interested in including such data are permitted to do so. A specific suggestion has been "Past or Present Occupation Observation" (urn:hl7ii:2.16.840.1.113883.10.20.22.4.217:2020-09-01), which supports data from eSituation.WorkRelatedGroup and ePayment.EmployerGroup, and which would most appropriately be included in the Situation section, should an implementer choose to do so.

##### 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*](http://loinc.org/).

For properties bound to large value systems (e.g., ICD-10 PCS), NEMSIS provides suggested subsets at NEMSIS.org. 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.

Note that since the original publication of this guide, LOINC has assigned OIDs to its answer sets, which can be found at loinc.org/search. Those OIDs are not the same as those published here. Validators using the MDHT publication classes will identify the values correctly using the OIDs in this guide; validators attempting to look up the values at loinc.org will need to use the LOINC code, not the value set OID, to find the correct value set. We have requested that those LOINC OIDs, which are not, to our knowledge, being used, be updated to those published in the original guide (and here).

#### 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>).

* 1. .......

**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:

1. .1 as zero to one present
2. .1 as one and only one present
3. .2 as two must be present
4. .\* 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

1. **SHALL** contain [1..1] Reporting Parameters section (templateId: 2.16.840.1.113883.10.20.17.2.1) (CONF:4131).
2. 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.

##### 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*](http://www.hl7.org/v3ballot/html/help/pfg/pfg.htm):

* **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:h17-org:v3">

...

</ClinicalDocument>

**Figure 3: ClinicalDocument example**

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

**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 2.16.840.1.1133883.17.3.10.2]

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

1. **1. SHALL** contain exactly one [1..1] **templateId** (CONF:11388 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.2"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** conform to [Consol US Realm Header2](https://www.hl7.org/ccdasearch/templates/2.16.840.1.113883.10.20.22.1.1.html) template (templateId: 2.16.840.1.113883.10.20.22.1.1:2015-08-01)
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 at least one [1..\*] **id** (CONF:5363)

NEMSIS trace: eRecord.01 /@root should be the OID for the EMS Agency; @extension the internally assigned ID The PCR UUID can also be used as an identifier in the /@root property, no extension required.

1. **SHALL** contain exactly one [1..1] **code** (CONF:5253)/@code="67796-3" EMS patient care report - version 3 Document NEMSIS (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10002)
2. **SHALL** contain exactly one [1..1] **title**="EMS Patient Care Report" which SHALL equal "EMS Patient Care Report" (CONF:11389)
3. **SHALL** contain exactly one [1..1] **confidentialityCode**="N" /@code="N" (CodeSystem: 2.16.840.1.113883.5.25 HL7 Confidentiality) (CONF:11390)

Default value is "N" (normal)

1. **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."
2. **SHALL** contain exactly one [1..1] **recordTarget** such that it (CONF:10004)
   1. **SHALL** contain exactly one [1..1] **patientRole** such that it (CONF:10870)
      1. **SHALL** contain at least one [1..\*] **addr** (<CONF:10031>)

*NEMSIS Trace*

*ePatient.05 . . . /PatientRole/addr/streetAddressLine (multiples supported)*

*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*

* + 1. **SHALL** contain at least one [1..\*] **id** (CONF:10871)

*NEMSIS Trace*

*EPatient.01: root= the OID for the generating EMS agency, or "N"I*

*EPatient.12: root"= 2.16.840.1.113883.3.18"4 (Social Security Administration)*

*EPatient.20 and EPatient.21: root= the OID for the state department of motor vehicles, found at http://hl7.org/fhir/R4/identifier-registry.html, and reproduced in the appendix "Object Identifiers for US State Departments of Motor Vehicles”.*

* + 1. **MAY** contain zero or more [0..\*] **telecom** (CONF:11621)

*NEMSIS Trace: EPatient.18*

* + 1. **MAY** contain zero or one [0..1] **providerOrganization** such that it (CONF:5416, R2.1=CONF:1198-5416)
       1. **SHALL** contain at least one [1..\*] **id** (CONF:5417, R2.1=CONF:1198-5417)
       2. **SHALL** contain at least one [1..\*] **name** (CONF:5419, R2.1=CONF:1198-5419)
       3. **SHALL** contain at least one [1..\*] **telecom** (CONF:5420, R2.1=CONF:1198-5420)
       4. **SHALL** contain at least one [1..\*] **addr** (CONF:5422, R2.1=CONF:1198-5422)
       5. 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)
    2. **SHALL** contain exactly one [1..1] **patient** such that it (CONF:10872)

**a. SHOULD** contain zero or one [0..1] **birthTime** (CONF:10873)

*NEMSIS 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)

*NEMSIS Trace: EPatient.14*

**c. SHOULD** contain zero or more [0..\*] **name** (CONF:10875)

*NEMSIS Trace*

*EPatient.02 . . . /PatientRole/Patient/name/family*

*EPatient.03 . . . /PatientRole/Patient/name/given*

*EPatient.04 . . . /PatientRole/Patient/name/given*

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

*name, family should be used.*

**d. 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)

*NEMSIS Trace: EPatient.14*

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

**e. MAY** contain zero or more [0..\*] **sdtc:raceCode** (CONF:10877), which **SHALL** be selected from

ValueSet *RaceCategory* 2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:10034)

*NEMSIS Trace: EPatient.14*

**f. SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:10035), which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:10878)

*NEMSIS Trace: EPatient.13*

*See terminology map in Appendix "Gender”.*

**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.FIELDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:16866).*

**b. 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 at least one [1..\*] **id** (CONF:10039)

*NEMSIS Trace: eResponse.01 (required), eOther.08 (optional)*

**c. SHALL** contain exactly one [1..1] **addr** (CONF:10040)

*Required for human author; may be null for a software device*

*NEMSIS 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 NEMSIS 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)

*NEMSIS 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:11630)

*NEMSIS Trace: eRecord.02 Software Creator*

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

*NEMSIS 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)

*NEMSIS 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*

*Optimal address may be where dContact.01 Agency Contact Type is "EMS Agency Director/Chief/Lead Administrator/CEO”*

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

*NEMSIS 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)

*NEMSIS 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** (CONF:11328)

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

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

**a. SHALL** contain exactly one [1..1] **addr** (CONF:10055)

*NEMSIS Trace: eDisposition.03-08*

*eDisposition.03. . . / AssignedAuthor/addr/streetAddressLine*

*eDisposition.04 . . . / AssignedAuthor/addr/city*

*eDisposition.05. . . / AssignedAuthor/addr/state*

*eDisposition.07. . . / AssignedAuthor/addr/postalCode*

*eDisposition.08. . . / AssignedAuthor/addr/country*

**b. SHALL** contain exactly one [1..1] **code** (CONF:11601), which **SHALL** be selected from ValueSet *DestinationType* 2.16.840.1.113883.17.3.11.69 **DYNAMIC** (CONF:10056)

*NEMSIS Trace: EDisposition.21*

**c.** contain exactly one [1..1] **@classCode**="SDLOC"

**d. SHOULD** contain zero or one [0..1] **id** (CONF:11599)

*NEMSIS Trace: eDisposition.02 - Destination/Transferred To, Code*

**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)

*NEMSIS Trace: EResponse.05, type of service requested*

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

*NEMSIS 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*

*NEMSIS 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 zero or one [0..1] **functionCode**, which **SHALL** be selected from ValueSet *ProviderResponseRole* 2.16.840.1.113883.17.3.11.80 **DYNAMIC** (CONF:10052)

*NEMSIS Trace: ECrew.03*

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

**a. SHALL** contain zero or one [0..1] **code** (CONF:10893), which **SHALL** be selected from ValueSet

*CrewRoleLevel* 2.16.840.1.113883.17.3.11.81 **DYNAMIC** (CONF:10053)

*NEMSIS Trace: ECrew.02*

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

*NEMSIS Trace: ECrew.01*

**c. MAY** contain zero or one [0..1] **addr** (CONF:10895)

*NEMSIS 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)

*NEMSIS 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)

*NEMSIS 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)

*NEMSIS 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)

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

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

*NEMSIS 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)

*NEMSIS 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)

*NEMSIS 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)

*NEMSIS Trace: EScene.13*

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

*NEMSIS Trace*

*eScene.15 . . . / assignedentity /addr/streetAddressLine*

*eScene.16.. . . / assignedentity /addr/*

*eScene.17 . . . / assignedentity /addr/city*

*eScene.18 . . . / assignedentity /addr/state*

*eScene.19 . . . / assignedentity /addr/postalCode*

*eScene.20 . . . / assignedentity /addr/intersection*

*eScene.21 . . . / assignedentity /addr/county*

*eScene.22 . . . / assignedentity /addr/country*

**d. MAY** contain zero or more [0..\*] **encounterParticipant** such that it (CONF:11325)

**a. SHALL** contain exactly one [1..1] **@typeCode**="CON" (CONF:11623)

**b. SHALL** contain exactly one [1..1] **assignedEntity** such that it (CONF:11624)

**a. SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:11625)

**b. SHALL** contain exactly one [1..1] **representedOrganization** such that it (CONF:11626)

**a. SHALL** contain exactly one [1..1] **name** (CONF:11627)

*NEMSIS 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: 2.16.840.1.1133883.17.3.10.1.15:2022-01-01)

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

**a.** Conforms to *EMS Cardiac Arrest Event Section* (templateId: 2.16.840.1.1133883.17.3.10.1.14:2022-01-01)

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

**a.** Conforms to *EMS Advance Directives Section* (templateId: 2.16.840.1.1133883.17.3.10.1.12:2022-01-01)

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

**a.** Conforms to *EMS Allergies And Adverse Reactions Section* (templateId: 2.16.840.1.1133883.17.3.10.1.13:2022-01-01)

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

**a.** Conforms to *EMS Past Medical History Section* (templateId: 2.16.840.1.1133883.17.3.10.1.19:2022-01-01)

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

**a.** Conforms to *EMS Social History Section* (templateId: 2.16.840.1.1133883.17.3.10.1.22:2022-01-01)

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

**a.** Conforms to *EMS Physical Assessment Section* (templateId: 2.16.840.1.1133883.17.3.10.1.20:2022-01-01)

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

**a.** Conforms to *EMS Medications Administered Section* (templateId: 2.16.840.1.1133883.17.3.10.1.18:2022-01-01)

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

**a.** Conforms to *EMS Procedures Performed Section* (templateId: 2.16.840.1.1133883.17.3.10.1.21:2022-01-01)

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

**a.** Conforms to *EMS Patient Care Narrative Section* (templateId: 2.16.840.1.1133883.17.3.10.1.1:2022-01-01)

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

**a.** Conforms to *EMS Scene Section* (templateId: 2.16.840.1.1133883.17.3.10.1.8:2022-01-01)

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

**a.** Conforms to *EMS Dispatch Section* (templateId: 2.16.840.1.1133883.17.3.10.1.2:2022-01-01)

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

**a.** Conforms to *EMS Disposition Section* (templateId: 2.16.840.1.1133883.17.3.10.1.4:2022-01-01)

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

**a.** Conforms to *EMS Personnel Adverse Event Section* (templateId: 2.16.840.1.1133883.17.3.10.1.6:2022-01-01)

**31. SHALL** contain [1..1] **component** such that it (CONF:10022)

**a.** Conforms to *EMS Protocol Section* (templateId: 2.16.840.1.1133883.17.3.10.1.7:2022-01-01)

**32. SHALL** contain [1..1] **component** such that it (CONF:10023)

**a.** Conforms to *EMS Response Section* (templateId: 2.16.840.1.1133883.17.3.10.1.3:2022-01-01)

**33. SHALL** contain [1..1] **component** such that it (CONF:10024)

**a.** Conforms to *EMS Situation Section* (templateId: 2.16.840.1.1133883.17.3.10.1.9:2022-01-01)

**34. MAY** contain [0..1] **component** such that it (CONF:10025)

**a.** Conforms to *EMS Times Section* (templateId: 2.16.840.1.1133883.17.3.10.1.10:2022-01-01)

**35. SHALL** contain [1..1] **component** such that it (CONF:10026)

**a.** Conforms to *EMS Vital Signs Section* (templateId: 2.16.840.1.1133883.17.3.10.1.23:2022-01-01)

**36. SHALL** contain [1..1] **component** such that it (CONF:10869)

**a.** Conforms to *EMS Injury Incident Description Section* (templateId: 2.16.840.1.1133883.17.3.10.1.17:2022-01-01)

**37. SHOULD** contain [0..\*] **component** such that it (CONF:11318)

**a.** Conforms to *EMS Billing Section* (templateId: 2.16.840.1.1133883.17.3.10.1.5:2022-01-01)

**Patient Care Report example**

*Full example at https://github.com/HL7/CDA-ems-patient-care-report/tree/main/Examples*

|  |
| --- |
| <?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="2.16.840.1.1133883.17.3.10.2" extension="2022-01-01"/>  <code code="67796-3" codeSystem="2.16.840.1.113883.6.1" displayName="EMS patient care report –  version 3 Document NEMSIS"/>  <title>EMS Patient Care Report</title>  <effectiveTime/>  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"/>  <languageCode/>  <recordTarget>  <patientRole>  <addr/>  <patient>  <administrativeGenderCode/>  <raceCode/>  </patient>  </patientRole>  </recordTarget>  <author>  <time/>  <assignedAuthor>  <id/>  </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">  <time/>  <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](#_bookmark28) [Section](#_bookmark28)
* [EMS Allergies And Adverse](#_bookmark29) [Reactions Section](#_bookmark29)
* [EMS Billing Section](#_bookmark30)
* [EMS Cardiac Arrest Event](#_bookmark31) [Section](#_bookmark31)
* [EMS Current Medication](#_bookmark32) [Section](#_bookmark32)
* [EMS Dispatch Section](#_bookmark33)
* [EMS Disposition Section](#_bookmark34)
* [EMS Injury Incident Description](#_bookmark35) [Section](#_bookmark35)
* [EMS Medications Administered](#_bookmark36) [Section](#_bookmark36)
* [EMS Past Medical History](#_bookmark37) [Section](#_bookmark37)
* [EMS Patient Care Narrative](#_bookmark38) [Section](#_bookmark38)
* [EMS Personnel Adverse Event](#_bookmark39) [Section](#_bookmark39)
* [EMS Physical Assessment](#_bookmark40) [Section](#_bookmark40)
* [EMS Procedures Performed](#_bookmark41) [Section](#_bookmark41)
* [EMS Protocol Section](#_bookmark42)
* [EMS Response Section](#_bookmark43)
* [EMS Scene Section](#_bookmark44)
* [EMS Situation Section](#_bookmark45)
* [EMS Social History Section](#_bookmark46)
* [EMS Times Section](#_bookmark47)
* [EMS Vital Signs Section](#_bookmark48)

#### EMS Advance Directives Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.12]

Information regarding patient advance directives

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11395 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.12"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11634)**/@code**="67840-9" *EMS Advance Directives Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10191)
3. **SHALL** contain exactly one [1..1] **title**="EMS Advance Directive Section" (CONF:10944)
4. **SHALL** contain exactly one [1..1] **text** (CONF:10945)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10946)
   1. Conforms to [*Advance Directive Observation*](#_bookmark53)(templateId:

2.16.840.1.1133883.17.3.10.1.98:2022-01-01)

**EMS Advance Directives Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.12"

extension="2022-01-01"/>

<code code="67840-9" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Advance Directives Narrative NEMSIS"/>

<title>EMS Advance Directive Section</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

</section>

#### EMS Allergies And Adverse Reactions Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.13]

Information regarding patient allergies and sensitivities

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11396 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.13"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11635)**/@code**="48765-2" *Allergies and adverse reactions Document* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10196)
3. **SHALL** contain exactly one [1..1] **title**="EMS Allergies and Adverse Reactions"

(CONF:10948)

1. **SHALL** contain exactly one [1..1] **text** (CONF:10949)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10953)
   1. Conforms to [*Non Drug Allergy Organizer*](#_bookmark136)(templateId:

2.16.840.1.1133883.17.3.10.1.49:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11319)
   1. Conforms to [*Drug Allergy Organizer*](#_bookmark95)(templateId:

2.16.840.1.1133883.17.3.10.1.183:2022-01-01)

**EMS Allergies And Adverse Reactions Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.13"

extension="2022-01-01"/>

<code code="48765-2" codeSystem="2.16.840.1.113883.6.1" displayName="Allergies and adverse reactions"/>

<title>Allergies and adverse reactions</title>

<text/>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

. . .

</organizer>

</entry>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

. . .

</organizer>

</entry>

</section>

#### EMS Billing Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.5]

Information pertinent to billing processes

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11392 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.5"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11631)**/@code**="67659-3" *EMS Billing Narrative NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10080)

1. **SHALL** contain exactly one [1..1] **title**="EMS Billing Section" (CONF:10907)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10909)
3. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10910)
   1. Conforms to [*Billing Condition*](#_bookmark61)(templateId: 2.16.840.1.1133883.17.3.10.1.91:2022-01-01)
4. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10912)
   1. Conforms to [*Level Of Service Observation*](#_bookmark122)(templateId:

2.16.840.1.1133883.17.3.10.1.92:2022-01-01)

**EMS Billing Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.5"

extension="2022-01-01"/>

<code code="67659-3" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Billing Narrative NEMSIS"/>

<title>EMS Billing Narrative</title/>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

</section>

#### EMS Cardiac Arrest Event Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.14]

Information regarding a cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11394 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.14"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11633)**/@code**="67799-7" *EMS Cardiac Arrest Event Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (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)
   1. Conforms to [*Cardiac Arrest*](#_bookmark68)(templateId: 2.16.840.1.1133883.17.3.10.1.27:2022-01-01)

**EMS Cardiac Arrest Event Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.14"

extension="2022-01-01"/>

<code code="67799-7" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Cardiac Arrest Event Narrative NEMSIS"/>

<title>EMS Cardiac Arrest Event</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

</section>

#### EMS Current Medication Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.15]

Information regarding a patient's current medications

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11397 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.15"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11636)**/@code**="67844-1" *EMS current Medications Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10955)
3. **SHALL** contain exactly one [1..1] **title**="EMS Current Medications" (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)
   1. Conforms to [*Currently On Medication*](#_bookmark80)(templateId:

2.16.840.1.1133883.17.3.10.1.75:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..\*] **entry** such that it (CONF:10962)
   1. Conforms to [*Current Medication*](#_bookmark79)(templateId: 2.16.840.1.1133883.17.3.10.1.77:2022-01-01)

**EMS Current Medication Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.15"

extension="2022-01-01"/>

<code code="67844-1" codeSystem="2.16.840.1.113883.6.1" displayName="EMS current Medications Narrative NEMSIS"/>

<title>EMS Current Medications Narrative</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

<entry>

<substanceAdministration classCode="SBADM" moodCode="EVN">

. . .

</substanceAdministration>

</entry>

</section>

#### EMS Dispatch Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.2]

Information regarding the dispatch process

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11406 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.2"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11638)**/@code**="67660-1" *EMS Dispatch Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10556)
3. **SHALL** contain exactly one [1..1] **title**="EMS Dispatch Section" (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)
   1. Conforms to [*Emergency Medical Dispatch Observation*](#_bookmark97)(templateId:

2.16.840.1.1133883.17.3.10.1.73:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10993)
   1. Conforms to [*Dispatch Reason*](#_bookmark93)(templateId: 2.16.840.1.1133883.17.3.10.1.74:2022-01-01)

**EMS Dispatch Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.2"

extension="2022-01-01"/>

<code code="67660-1" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Dispatch Narrative NEMSIS"/>

<title>EMS Dispatch Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

</section>

#### EMS Disposition Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.4]

Information regarding the disposition of the patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11408 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.4"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10652)**/@code**="67661-9" *EMS Disposition Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10651)
3. **SHALL** contain exactly one [1..1] **title**="EMS Disposition Section" 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)
   1. Conforms to [*Number Of Patients Transported Observation*](#_bookmark137)(templateId:

2.16.840.1.1133883.17.3.10.1.31:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11007)
   1. Conforms to [*Transport Mode Observation*](#_bookmark185)(templateId:

2.16.840.1.1133883.17.3.10.1.33:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11009)
   1. Conforms to [*Transport Method Observation*](#_bookmark184)(templateId:

2.16.840.1.1133883.17.3.10.1.34:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11011)
   1. Conforms to [*Reason For Choosing Destination Observation*](#_bookmark164)(templateId:

2.16.840.1.1133883.17.3.10.1.35:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..\*] **entry** such that it (CONF:11013)
   1. Conforms to [*Prearrival Activation Observation*](#_bookmark151)(templateId:

2.16.840.1.1133883.17.3.10.1.36:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11015)
   1. Conforms to [*Patient Condition At Destination Observation*](#_bookmark144)(templateId:

2.16.840.1.1133883.17.3.10.1.37:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11330)
   1. Conforms to [*Destination Hospital Capability*](#_bookmark82)(templateId:

2.16.840.1.1133883.17.3.10.1.104:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11331)
   1. Conforms to [*Destination Ward*](#_bookmark84)(templateId: 2.16.840.1.1133883.17.3.10.1.186:2022-01-01)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11409)
   1. Conforms to [*Unit Disposition*](#_bookmark192)(templateId: 2.16.840.1.1133883.17.3.10.1.196:2022-01-01)
3. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11410)
   1. Conforms to [*Patient Engagement*](#_bookmark145)(templateId:

2.16.840.1.1133883.17.3.10.1.197:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11411)
   1. Conforms to [*Crew Disposition*](#_bookmark78)(templateId: 2.16.840.1.1133883.17.3.10.1.198:2022-01-01)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11412)
   1. Conforms to [*Transport Disposition*](#_bookmark183)(templateId:

2.16.840.1.1133883.17.3.10.1.199:2022-01-01)

**EMS Disposition Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.4"

extension="2022-01-01"/>

<code code="67661-9" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Disposition Narrative NEMSIS"/>

<title>EMS Disposition Narrative</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Injury Incident Description Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.17]

Observations concerning a patient's injury mechanism

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11393 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.17"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11632)**/@code**="67800-3" *EMS Injury Incident Description Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10094)
3. **SHALL** contain exactly one [1..1] **title**="EMS Injury Incident Description Section"

(CONF:10914)

1. **SHALL** contain exactly one [1..1] **text** (CONF:10916)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10917)
   1. Conforms to [*Injury Cause Category*](#_bookmark117)(templateId:

2.16.840.1.1133883.17.3.10.1.50:2022-01-01)

1. If section/@nullFlavor is not present, **SHOULD** contain [0..1] **entry** such that it (CONF:10919)
   1. Conforms to [*Injury Mechanism*](#_bookmark118)(templateId: 2.16.840.1.1133883.17.3.10.1.51:2022-01-01)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10921)
   1. Conforms to [*Trauma Triage Criteria Steps1and2*](#_bookmark187)(templateId:

2.16.840.1.1133883.17.3.10.1.52:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10923)
   1. Conforms to [*Trauma Triage Criteria Steps3and4*](#_bookmark188)(templateId:

2.16.840.1.1133883.17.3.10.1.53:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10925)
   1. Conforms to [*Vehicle Impact Area*](#_bookmark197)(templateId: 2.16.840.1.1133883.17.3.10.1.54:2022-01-01)
2. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10927)
   1. Conforms to [*Patient Location In Vehicle*](#_bookmark146)(templateId:

2.16.840.1.1133883.17.3.10.1.55:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10929)
   1. Conforms to [*Vehicle Occupant Safety Equipment*](#_bookmark198)(templateId:

2.16.840.1.1133883.17.3.10.1.56:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10931)
   1. Conforms to [*Airbag Deployment Status*](#_bookmark56)(templateId:

2.16.840.1.1133883.17.3.10.1.57:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10933)
   1. Conforms to [*Height Of Fall*](#_bookmark115)(templateId: 2.16.840.1.1133883.17.3.10.1.58:2022-01-01)
2. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10935)
   1. Conforms to [*Disaster Type*](#_bookmark86)(templateId: 2.16.840.1.1133883.17.3.10.1.59:2022-01-01)

**EMS Injury Incident Description Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.17"

extension="2022-01-01"/>

<code code="67800-3" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Injury Incident Description Narrative NEMSIS"/>

<title>EMS Injury Incident Description Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Medications Administered Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.18]

Collection of information regarding the administration of medications

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11403 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.18"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10439)**/@code**="67849-0" *EMS Medications Administered Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10987)
3. **SHALL** contain exactly one [1..1] **title**="EMS Medications Administered Section"

(CONF:10442)

1. **SHALL** contain exactly one [1..1] **text** (CONF:10441)
2. If section/@nullFlavor is not present, **MAY** contain [1..\*] **entry** such that it (CONF:10989)
   1. Conforms to [*Medication Administered*](#_bookmark127)(templateId:

2.16.840.1.1133883.17.3.10.1.72:2022-01-01)

**EMS Medications Administered Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.18"

extension="2022-01-01"/>

<code code="67849-0" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Medications Administered Narrative NEMSIS"/>

<title>EMS Medications Administered Narrative</title>

<text/>

<entry>

<substanceAdministration classCode="SBADM" moodCode="EVN">

. . .

</substanceAdministration>

</entry>

. . .

</section>

#### EMS Past Medical History Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.19]

Collection of information regarding the patient's medical history

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11391 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.19"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10059)**/@code**="67842-5" *EMS Past Medical History Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10058)
3. **SHALL** contain exactly one [1..1] **title**="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)
   1. Conforms to [*Existence Of History Of Condition Or Surgery*](#_bookmark99)(templateId:

2.16.840.1.1133883.17.3.10.1.60:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10905)
   1. Conforms to [*Medical/Surgical History*](#_bookmark126)(templateId:

2.16.840.1.1133883.17.3.10.1.61:2022-01-01)

**EMS Past Medical History Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.19"

extension="2022-01-01"/>

<code code="67842-5" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Past Medical History Narrative NEMSIS"/>

<title>EMS Past Medical History Narrative</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Patient Care Narrative Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.1]

A narrative description of the EMS encounter

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11405 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.1"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10551)**/@code**="67781-5" *Summarization of Encounter Note Narrative* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10552)
3. **SHALL** contain exactly one [1..1] **title**="EMS Patient Care Narrative Section"

(CONF:10554)

1. **SHALL** contain exactly one [1..1] **text** (CONF:10553) NEMSIS Trace: eNarrative.01

**EMS Patient Care Narrative Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.1"

extension="2022-01-01"/>

<code code="67781-5" codeSystem="2.16.840.1.113883.6.1" displayName="Summarization of Encounter Note Narrative"/>

<title>Summarization of Encounter Note Narrative</title>

<text>

. . .

</text>

</section>

#### EMS Personnel Adverse Event Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.6]

Information regarding adverse events affecting EMS personnel

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11413 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.6"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10698)**/@code**="67658-5" *EMS Exposures or Injuries of EMS Personnel Provider Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10697)
3. **SHALL** contain exactly one [1..1] **title**="EMS Personnel Adverse Event Section"

(CONF:10700)

1. **SHALL** contain exactly one [1..1] **text** (CONF:10699)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11017)
   1. Conforms to [*Adverse Event Indicator*](#_bookmark54)(templateId:

2.16.840.1.1133883.17.3.10.1.89:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:11019)
   1. Conforms to [*Adverse Event Type Observation*](#_bookmark55)(templateId:

2.16.840.1.1133883.17.3.10.1.90:2022-01-01)

**EMS Personnel Adverse Event Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.6"

extension="2022-01-01"/>

<code code="67658-5" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Exposures or Injuries of EMS Personnel Provider Narrative NEMSIS"/>

<title>Exposures or Injuries of EMS Personnel Provider Narrative</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Physical Assessment Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.20]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.20"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10337)**/@code**="29545-1" *Physical findings Narrative*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10336)

1. **SHALL** contain exactly one [1..1] **title**="EMS Physical Assessment Section" (CONF:10339)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10338)
3. If section/@nullFlavor is not present, **SHOULD** contain [0..\*] **entry** such that it (CONF:10975)
   1. Conforms to [*Physical Assessment Organizer*](#_bookmark149)(templateId:

2.16.840.1.1133883.17.3.10.1.78:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10977)
   1. Conforms to [*Patient Pregnancy*](#_bookmark147)(templateId: 2.16.840.1.1133883.17.3.10.1.79:2022-01-01)
2. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:10979)
   1. Conforms to [*Last Oral Intake*](#_bookmark119)(templateId: 2.16.840.1.1133883.17.3.10.1.80:2022-01-01)
3. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10981)
   1. Conforms to [*Patient Age*](#_bookmark141)(templateId: 2.16.840.1.1133883.17.3.10.1.81:2022-01-01)
4. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10983)
   1. Conforms to [*Thrombolytic Contraindications*](#_bookmark181)(templateId:

2.16.840.1.1133883.17.3.10.1.82:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10985)
   1. Conforms to [*Barriers To Patient Care*](#_bookmark60)(templateId:

2.16.840.1.1133883.17.3.10.1.83:2022-01-01)

1. **MAY** contain zero or one [0..1] **entry** such that it (CONF:11401)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Patient Body Weight*](#_bookmark143)(CONF:11099)
2. **MAY** contain zero or one [0..1] **entry** such that it (CONF:11402)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Length Based Patient Body Weight Class*](#_bookmark120)

(CONF:11100)

**EMS Physical Assessment Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.20"

extension="2022-01-01"/>

<code code="29545-1" codeSystem="2.16.840.1.113883.6.1" displayName="Physical findings Narrative"/>

<title>Physical findings Narrative</title>

<text/>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

. . .

</organizer>

</entry>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Procedures Performed Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.21]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11404 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.21"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10490)**/@code**="29554-3" *Procedure Narrative*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10489)

1. **SHALL** contain exactly one [1..1] **title**="EMS Procedures Performed Section" (CONF:10492)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10491)
3. If section/@nullFlavor is not present, **MAY** contain [0..\*] **entry** such that it (CONF:6277)
   1. Conforms to [*Procedure*](#_bookmark154)(templateId: 2.16.840.1.1133883.17.3.10.1.181:2022-01-01)

**EMS Procedures Performed Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.21"

extension="2022-01-01"/>

<code code="29554-3" codeSystem="2.16.840.1.113883.6.1" displayName="Procedure Narrative"/>

<title>Procedure Narrative</title>

<text/>

<entry>

<procedure classCode="PROC" moodCode="EVN">

. . .

</procedure>

</entry>

. . .

</section>

#### EMS Protocol Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.7]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11414 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.7"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11639)**/@code**="67663-5" *EMS Protocol Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10713)
3. **SHALL** contain exactly one [1..1] **title**="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)
   1. Conforms to [*Protocol Observation*](#_bookmark161)(templateId:

2.16.840.1.1133883.17.3.10.1.93:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:11026)
   1. Conforms to [*Candidate Patient Registry Type*](#_bookmark65)(templateId:

2.16.840.1.1133883.17.3.10.1.94:2022-01-01)

**EMS Protocol Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.7"

extension="2022-01-01"/>

<code code="67663-5" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Protocol Narrative NEMSIS"/>

<title>EMS Protocol Narrative</title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Response Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.3]

Information regarding the EMS crew's response to dispatch

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11407 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.3"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10573)**/@code**="67664-3" *EMS Response Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10572)
3. **SHALL** contain exactly one [1..1] **title**="EMS Response Section" (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)
   1. Conforms to [*Delay Organizer*](#_bookmark81)(templateId: 2.16.840.1.1133883.17.3.10.1.95:2022-01-01)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10997)
   1. Conforms to [*Dispatch Location Organizer*](#_bookmark91)(templateId:

2.16.840.1.1133883.17.3.10.1.96:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:10999)
   1. Conforms to [*Response Odometer Reading Organizer*](#_bookmark173)(templateId:

2.16.840.1.1133883.17.3.10.1.97:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11001)
   1. Conforms to [*Response Mode To Scene*](#_bookmark172)(templateId:

2.16.840.1.1133883.17.3.10.1.182:2022-01-01)

**EMS Response Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.3"

extension="2022-01-01"/>

<code code="67664-3" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Response Narrative NEMSIS"/>

<title>EMS Response Narrative </title>

<text/>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

. . .

</organizer>

</entry>

. . .

</section>

#### EMS Scene Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.8]

Information about the environment in which the patient is found

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11415 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.8"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11640)**/@code**="67665-0" *EMS Scene Narrative NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10732)

1. **SHALL** contain exactly one [1..1] **title**="EMS Scene Section" (CONF:10734)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10733)
3. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11028)
   1. Conforms to [*First Unit Indicator*](#_bookmark105)(templateId: 2.16.840.1.1133883.17.3.10.1.84:2022-01-01)
4. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11032)
   1. Conforms to [*Scene Patient Count*](#_bookmark177)(templateId: 2.16.840.1.1133883.17.3.10.1.86:2022-01-01)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11034)
   1. Conforms to [*Mass Casualty Indicator*](#_bookmark125)(templateId:

2.16.840.1.1133883.17.3.10.1.87:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11036)
   1. Conforms to [*Location Type Observation*](#_bookmark123)(templateId:

2.16.840.1.1133883.17.3.10.1.88:2022-01-01)

**EMS Scene Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.8"

extension="2022-01-01"/>

<code code="67665-0" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Scene Narrative NEMSIS"/>

<title>EMS Scene Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Situation Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.9]

Information about patient symptoms and complaints

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11416 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.9"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10755)**/@code**="67666-8" *EMS Situation Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10756)
3. **SHALL** contain exactly one [1..1] **title**="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)
   1. Conforms to [*Complaint*](#_bookmark74)(templateId: 2.16.840.1.1133883.17.3.10.1.63:2022-01-01)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11041)
   1. Conforms to [*Possible Injury*](#_bookmark150)(templateId: 2.16.840.1.1133883.17.3.10.1.64:2022-01-01)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11043)
   1. Conforms to [*Provider Primary Impression*](#_bookmark162)(templateId:

2.16.840.1.1133883.17.3.10.1.65:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11045)
   1. Conforms to [*Primary Symptom*](#_bookmark152)(templateId: 2.16.840.1.1133883.17.3.10.1.66:2022-01-01)
2. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11047)
   1. Conforms to [*Other Symptoms*](#_bookmark138)(templateId: 2.16.840.1.1133883.17.3.10.1.67:2022-01-01)
3. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11049)
   1. Conforms to [*Provider Secondary Impressions*](#_bookmark163)(templateId:

2.16.840.1.1133883.17.3.10.1.68:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11051)
   1. Conforms to [*Initial Patient Acuity*](#_bookmark116)(templateId:

2.16.840.1.1133883.17.3.10.1.69:2022-01-01)

**EMS Situation Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.9"

extension="2022-01-01"/>

<code code="67666-8" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Situation Narrative NEMSIS"/>

<title>EMS Situation Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Social History Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.22]

Information about the patient's social environment

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11398 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.22"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:10241)**/@code**="67843-3" *EMS Social History Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10240)
3. **SHALL** contain exactly one [1..1] **title**="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)
   1. Conforms to [*Existence Of Drug Use Indication*](#_bookmark98)(templateId:

2.16.840.1.1133883.17.3.10.1.70:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [1..1] **entry** such that it (CONF:10967)
   1. Conforms to [*Drug Use Indication*](#_bookmark96)(templateId: 2.16.840.1.1133883.17.3.10.1.71:2022-01-01)

**EMS Social History Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.22"

extension="2022-01-01"/>

<code code="67843-3" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Social History Narrative NEMSIS"/>

<title>EMS Social History Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Times Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.10]

Set of times for defined events in the EMS trip

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11417 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.10"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11641)**/@code**="67667-6" *EMS Times Narrative NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10820)

1. **SHALL** contain exactly one [1..1] **title**="EMS Times Section" (CONF:10822)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10821)
3. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11053)
   1. Conforms to [*Call Time*](#_bookmark64)(templateId: 2.16.840.1.1133883.17.3.10.1.38:2022-01-01)
4. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11055)
   1. Conforms to [*Unit Notified Time*](#_bookmark195)(templateId: 2.16.840.1.1133883.17.3.10.1.39:2022-01-01)
5. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11057)
   1. Conforms to [*Unit En Route Time*](#_bookmark193)(templateId: 2.16.840.1.1133883.17.3.10.1.40:2022-01-01)
6. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11059)
   1. Conforms to [*Unit On Scene Time*](#_bookmark196)(templateId: 2.16.840.1.1133883.17.3.10.1.41:2022-01-01)
7. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11061)
   1. Conforms to [*Unit At Patient Time*](#_bookmark190)(templateId: 2.16.840.1.1133883.17.3.10.1.42:2022-01-01)
8. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11063)
   1. Conforms to [*Unit Left Scene Time*](#_bookmark194)(templateId:

2.16.840.1.1133883.17.3.10.1.43:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11065)
   1. Conforms to [*Patient Arrived At Destination Time*](#_bookmark142)(templateId:

2.16.840.1.1133883.17.3.10.1.44:2022-01-01)

1. If section/@nullFlavor is not present, **SHALL** contain [1..1] **entry** such that it (CONF:11067)
   1. Conforms to [*Unit Back In Service Time*](#_bookmark191)(templateId:

2.16.840.1.1133883.17.3.10.1.45:2022-01-01)

1. If section/@nullFlavor is not present, **MAY** contain [0..1] **entry** such that it (CONF:11069)
   1. Conforms to [*Dispatch Notified Time*](#_bookmark92)(templateId:

2.16.840.1.1133883.17.3.10.1.46:2022-01-01)

**EMS Times Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.10"

extension="2022-01-01"/>

<code code="67667-6" codeSystem="2.16.840.1.113883.6.1" displayName="EMS Times Narrative NEMSIS"/>

<title>EMS Times History Narrative </title>

<text/>

<entry>

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entry>

. . .

</section>

#### EMS Vital Signs Section

[Section: templateId 2.16.840.1.1133883.17.3.10.1.23]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.23"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11637)**/@code**="8716-3" *Vital Signs* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10252)

1. **SHALL** contain exactly one [1..1] **title**="EMS Vital Signs Section" (CONF:10254)
2. **SHALL** contain exactly one [1..1] **text** (CONF:10969)
3. If section/@nullFlavor is not present, **SHALL** contain [1..\*] **entry** such that it (CONF:10970)
   1. Conforms to [*Vital Signs Organizer*](#_bookmark199)(templateId:

2.16.840.1.1133883.17.3.10.1.28:2022-01-01)

**EMS Vital Signs Section example**

<section>

<templateId root="2.16.840.1.1133883.17.3.10.1.23"

extension="2022-01-01"/>

<code code="8716-3" codeSystem="2.16.840.1.113883.6.1" displayName="Vital Signs"/>

<title>Vital Signs</title>

<text/>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

. . .

</organizer>

</entry>

. . .

</section>

**Chapter**

**4**

## CLINICAL STATEMENT TEMPLATES

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* [Destination Ward](#_bookmark84)
* [Diastolic Blood Pressure](#_bookmark85)
* [Disaster Type](#_bookmark86)
* [Dispatch Delay](#_bookmark87)
* [Dispatch Location Latitude](#_bookmark88)
* [Dispatch Location Longitude](#_bookmark89)
* [Dispatch Location Name](#_bookmark90)
* [Dispatch Location Organizer](#_bookmark91)
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* [Response Mode To Scene](#_bookmark172)
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* [Scene Delay](#_bookmark176)
* [Scene Patient Count](#_bookmark177)
* [Skin Assessment](#_bookmark178)
* [Stroke Score](#_bookmark179)
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* [Vehicle Occupant Safety](#_bookmark198) [Equipment](#_bookmark198)
* [Vital Signs Organizer](#_bookmark199)

#### Abandoned Procedure Reason Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.130]

An explanation of why efforts to conduct a procedure were abandoned

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11522 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.130"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11255)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10512)**/@code**="ASSERTION" *Assertion* (CodeSystem:

2.16.840.1.113883.5.4 ActCode) (CONF:10511)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10514), which **SHALL** be selected from ValueSet [*ResuscitationDiscontinueReason*](#_bookmark299)2.16.840.1.113883.17.3.11.62 **DYNAMIC** (CONF:10513)

NEMSIS Trace: eArrest.16 (Reason CPR/resuscitation discontinued)

**Abandoned Procedure Reason Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.130"

extension="2022-01-01"/>

<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 2.16.840.1.1133883.17.3.10.1.117]

Qualitative assessment of condition of patient's abdomen

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11511 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.117"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11234)

1. **SHALL** contain exactly one [1..1] **code/@code**="67530-6" *Physical findings of Abdomen NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10387)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11235) NEMSIS Trace: eExam.03
2. **SHOULD** contain zero or more [0..\*] **value** with **@xsi:type**="CD" (CONF:11606), which **SHALL**

be selected from ValueSet [*AbdomenAssessmentFinding*](#_bookmark201)2.16.840.1.113883.17.3.11.31

**DYNAMIC** (CONF:10388)

NEMSIS Trace: eExam.11

1. **SHOULD** contain zero or one [0..1] **targetSiteCode** (CONF:11607), which **SHALL** be selected from ValueSet [*AbdominalFindingLocation*](#_bookmark202)2.16.840.1.113883.17.3.11.32 **DYNAMIC** (CONF:10389)

NEMSIS Trace: eExam.10

**Abdomen Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.117"

extension="2022-01-01"/>

<code code="67530-6" displayName="Physical findings of Abdomen NEMSIS"/>

<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 2.16.840.1.1133883.17.3.10.1.30]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.30"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11133)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11134) NEMSIS Trace: eVitals.01
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:11689)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Stroke Score*](#_bookmark179)(CONF:11695)
3. **MAY** contain zero or one [0..1] **component** such that it (CONF:11690)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Pain Score*](#_bookmark140)(CONF:11696)
4. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11703)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Level Of Responsiveness*](#_bookmark121)(CONF:11697)
5. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11691)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Blood Glucose*](#_bookmark62)(CONF:11698)
6. **MAY** contain zero or one [0..1] **component** such that it (CONF:11692)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Carbon Monoxide*](#_bookmark67)(CONF:11699)
7. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11693)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Carbon Dioxide*](#_bookmark66)(CONF:11700)
8. **SHOULD** contain zero or one [0..1] **component** such that it (CONF:11694)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Cardiac Rhythm*](#_bookmark72)(CONF:11714)
9. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11708)
   1. **SHALL** contain exactly one [1..1] **organizer**, where its type is [*Glasgow Coma Score Organizer*](#_bookmark106)

(CONF:11709)

**Additional Vital Signs Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.30"

extension="2022-01-01"/>

<id root="2.16.840.1.113883.19.4" extension="243346586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Advance Directive Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.98]

Whether an advance directive exists and how it is expressed

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11439 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.98"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11152)

1. **SHALL** contain exactly one [1..1] **code/@code**="67516-5" *Advance directive NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10194)

NEMSIS Trace: eHistory.05

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11153), which **SHALL** be selected from ValueSet [*AdvanceDirectiveType*](#_bookmark206)2.16.840.1.113883.17.3.11.63 **DYNAMIC** (CONF:11154)

**Advance Directive Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.98"

extension="2022-01-01"/>

<id root="2.16.840.1.113883.19.4" extension="477988662"/>

<code code="67516-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Advance directive NEMSIS"/>

<value xsi:type="CD" code="LA137-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="None"/>

</observation>

#### Adverse Event Indicator

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.89]

Indication of whether an adverse event occurred involving EMS personnel

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11483 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.89"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11204)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10705)**/@code**="67554-6" *Work related exposure, injury, or death Provider NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10706)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10707) NEMSIS Trace: eOther.05

**Adverse Event Indicator example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.89"

extension="2022-01-01"/>

<id root="2.16.840.1.113883.19.4" extension="1500491815"/>

<code code="67554-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS personnel exposed or injured"/>

<value xsi:type="BL" value="false"/>

</observation>

#### Adverse Event Type Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.90]

Kind of adverse event involving EMS personnel

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11484 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.90"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11205)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10710)**/@code**="67555-3" *Work related exposure, injury, or death Provider NEMSIS type* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10709)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10711), which **SHALL** be selected from ValueSet [*ProviderAdverseEventType*](#_bookmark288)2.16.840.1.113883.17.3.11.72 **DYNAMIC** (CONF:10712)

NEMSIS Trace: eOther.06

**Adverse Event Type Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.89"

extension="2022-01-01"/>

<id root="2.16.840.1.113883.19.4" extension="1193614183"/>

<code code="67555-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="related exposure, injury, or death Provider NEMSIS type"/>

<value xsi:type="CD" code="LA137-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="None"/>

</observation>

#### Airbag Deployment Status

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.57]

Airbag presence, deployment, and location

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11449 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.57"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11162)

1. **SHALL** contain exactly one [1..1] **code/@code**="67500-9" *Airbag deployment NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10126)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11163), which **SHALL** be selected from ValueSet [*AirbagStatus*](#_bookmark207)2.16.840.1.113883.17.3.11.8 **DYNAMIC** (CONF:10127)

NEMSIS Trace: eInjury.08

**Airbag Deployment Status example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.57" extension="2022-01-01"/>

<id root="2.16.840.1.113883.19.4" extension="236102004"/>

<code code="67500-9" codeSystem="2.16.840.1.113883.6.1" displayName="Airbag deployment NEMSIS"/>

<value xsi:type="CD" code="LA17387-4" displayName="No airbag deployed" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Airway Confirmation Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.175]

Whether airway placement was confirmed, including time and method

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11528 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.175"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11261)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10542)**/@code**="71576-3" *Airway device placement confirmation NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10541)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10546)

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

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10545) NEMSIS Trace: if eAirway.02 is populated, this is TRUE
2. **MAY** contain zero or more [0..\*] **methodCode** (CONF:10544), which **SHALL** be selected from ValueSet

[*AirwayDeviceConfirmationMethod*](#_bookmark208)2.16.840.1.113883.17.3.11.60 **DYNAMIC**

(CONF:10543)

NEMSIS Trace: eAirway.04

**Airway Confirmation Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.175" extension="2022-01-01"/

>

<id root="2.16.840.1.113883.19.4" extension="236102004"/>

<code code="71576-3" codeSystem="2.16.840.1.113883.6.1" displayName="Airway device placement confirmation NEMSIS"/>

<value xsi:type="CD" code="LA18672-8" displayName="Auscultation" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Arrest Rhythm

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.127]

First measurement of cardiac rhythm during or shortly after cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11519 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.127"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11251)

1. **SHALL** contain exactly one [1..1] **code/@code**="67512-4" *First monitored rhythm NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10179)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet

[*FirstMonitoredRhythm*](#_bookmark249)2.16.840.1.113883.17.3.11.14 **DYNAMIC** (CONF:10180)

NEMSIS Trace: eArrest.11

**Arrest Rhythm example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.127"

extension="2022-01-01"/>

<code code="67512-4" displayName="First monitored rhythm NEMSIS"/>

<value xsi:type="CD" code="LA17068-0" displayName="Asystole" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Back And Spine Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.119]

Qualitative assessment of condition of patient's back and spine

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11513 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.119"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11238)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10394)**/@code**="67532-2" *Physical findings of Back*

*+Spine NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10393)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11239) NEMSIS Trace: eExam.03
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10397), which **SHALL** be selected

from ValueSet [*BackSpineAssessmentFinding*](#_bookmark212)2.16.840.1.113883.17.3.11.34 **DYNAMIC**

(CONF:10398)

NEMSIS Trace: eExam.14

1. **SHALL** contain zero or one [0..1] **targetSiteCode** (CONF:10396), which **SHALL** be selected from ValueSet [*BackSpineFindingLocation*](#_bookmark213)2.16.840.1.113883.17.3.11.35 **DYNAMIC** (CONF:10395)

NEMSIS Trace: eExam.13

**Back And Spine Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.119"

extension="2022-01-01"/>

<code code="67532-2" displayName="Physical findings of Back+Spine NEMSIS"/

>

<value xsi:type="CD" code="LA17256-1" displayName="Pain with range of motion" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Barriers To Patient Care

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.83]

Kinds of circumstances limiting provision of care

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11478 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.83"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11196)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10435)**/@code**="67515-7" *Barriers to patient care NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10436)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10437), which **SHALL** be selected from ValueSet [*BarrierToCare*](#_bookmark214)2.16.840.1.113883.17.3.11.85 **DYNAMIC** (CONF:10438)

NEMSIS Trace: eHistory.01

**Barriers To Patient Care example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.83" extension="2022-01-01"/

>

<code code="67515-7" displayName="Barriers to patient care NEMSIS"/>

<value xsi:type="CD" code="LA17308-0" displayName="Hearing impaired" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Billing Condition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.91]

Patient condition classified by billing category

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11485 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.91"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11207)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10084)**/@code**="67556-1" *EMS condition code NEMSIS (Billing condition)* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10086)
2. **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)

NEMSIS Trace: ePayment.51

**Billing Condition example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.91" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67556-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Billing condition" />

<value xsi:type="CD" code="S21.342" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" displayName="Puncture wound with foreign body of left front wall of thorax with penetration intothoracic cavity" />

</observation>

#### Blood Glucose

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.166]

Patient blood glucose measured as a mass concentration

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11556 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.166"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11303)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10300)**/@code**="2339-0" *Glucose [Mass/volume] in Blood*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10299)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11304) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10301)

NEMSIS Trace: eVitals.18 UCUM units will typically be "mg/dl".

**Blood Glucose example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.166" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="2339-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glucose [Mass/volume] in Blood" />

<value xsi:type="PQ" value="110" unit="mg/dL" />

</observation>

#### Body Temperature

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.176]

Patient's body temperature

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11537 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.176"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11278)

1. **SHALL** contain exactly one [1..1] **code/@code**="8310-5" *Body temperature* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10289)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11279) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10290)

NEMSIS Trace: eVitals.24 UCUM units SHOULD be "Cel".

**Body Temperature example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.166" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="8310-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Body temperature" />

<value xsi:type="PQ" value="38" unit="Cel" />

</observation>

#### Call Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.38]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11430 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.38"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11143)

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

**Call Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.38" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69469-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="911 call to public safety answering point or other designated entity requesting EMS services [Date and time] Facility NEMSIS" />

<value xsi:type="TS" value="201201011545+0600" />

</observation>

#### Candidate Patient Registry Type

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.94]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.94"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11210)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10728)**/@code**="67553-8" *Condition indicating eligibility for illness or injury registry NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10729)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10730), which **SHALL** be selected from ValueSet [*RegistryType*](#_bookmark296)2.16.840.1.113883.17.3.11.74 **DYNAMIC** (CONF:10731)

NEMSIS Trace: eOther.02

**Candidate Patient Registry Type example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.94" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67553-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS candidate patient registry" />

<value xsi:type="CD" nullFlavor="NA" displayName="Not Applicable" /></ observation>

#### Carbon Dioxide

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.168]

Measurement of end tidal carbon dioxide

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11558 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.168"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11307)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10294)**/@code**="19889-5" *Carbon dioxide/Gas.total.at end expiration in Exhaled gas* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10293)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11308) NEMSIS Trace: eVitals.01
3. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.168" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="19889-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Carbon dioxide/Gas.total.at end expiration in Exhaled gas" />

<value xsi:type="PQ" value="5" unit="%" />

#### Carbon Monoxide

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.167]

Measurement of carbon monoxide in patient's bloodstream

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11557 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.167"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11305)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10297)**/@code**="20563-3" *Carboxyhemoglobin/ Hemoglobin.total in Blood* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10296)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11306) NEMSIS Trace: eVitals.01
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10298)

NEMSIS Trace: eVitals.17 UCUM units will typically be "%".

**Carbon Monoxide example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.167" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="20563-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Carboxyhemoglobin/Hemoglobin.total in Blood" />

<value xsi:type="PQ" value="0" unit="%" />

#### Cardiac Arrest

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.27]

Characteristics of a patient's cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11420 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.27"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11130)

1. **SHOULD** contain zero or one [0..1] **@negationInd** (CONF:10141) Populate as true if NEMSIS eArrest.01 = "No"
2. **SHALL** contain exactly one [1..1] **code/@code**="ASSERTION" *ASSERTION* (CodeSystem:

2.16.840.1.113883.5.4 ActCode) (CONF:10138)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10139) NEMSIS Trace: eArrest.14
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD"**/@code**="410429000" *cardiac arrest*

(CodeSystem: 2.16.840.1.113883.6.96 SNOMED CT) (CONF:10140)

NEMSIS Trace: eArrest.01

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10142)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10155)
   2. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10154)
   3. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Cardiac Arrest Cause*](#_bookmark69)(CONF:10941)
2. **SHALL** contain at least one [1..\*] **informant** such that it (CONF:10144)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="INF" (CONF:10158)
   2. **SHALL** contain exactly one [1..1] **relatedEntity** such that it (CONF:11071)
      1. **SHALL** contain exactly one [1..1] **@classCode**="AGNT" (CONF:10159)
      2. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [*CardiacArrestWitnessRole*](#_bookmark219)2.16.840.1.113883.17.3.11.11 **DYNAMIC** (CONF:10160)

*NEMSIS Trace: eArrest.04*

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10147)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10182)
   2. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10181)
   3. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Return Of Spontaneous Circulation*](#_bookmark175)

(CONF:10183)

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10148)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10187)
   2. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10186)
   3. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Destination Rhythm*](#_bookmark83)(CONF:10188)
2. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:11072)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10177)
   2. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10176)
   3. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Arrest Rhythm*](#_bookmark58)(CONF:10178)
3. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:11377)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CONF:10151)
   2. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10149)
   3. contains zero or more [0..\*] **observation**, where its type is [*Cardiac Arrest Timing*](#_bookmark71)
4. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:11332)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:11333)
   2. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Cardiac Arrest Outcome*](#_bookmark70)(CONF:11334)

**Cardiac Arrest example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.27" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="ASSERTION" codeSystem="(CodeSystem: 2.16.840.1.113883.5.4" CodeSystemName="ActCode" />

<value xsi:type="CD" code="410429000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="cardiac arrest" />

<entryRelationship>

. . .

</entryRelationship>

</observation>

#### Cardiac Arrest Cause

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.124]

Kind of event or condition causing cardiac arrest

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11518 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.124"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11246)

1. **SHALL** contain exactly one [1..1] **code/@code**="67503-3" *Cardiac arrest cause NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10156)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11671), which **SHALL** be selected from ValueSet [*CardiacArrestCause*](#_bookmark216)2.16.840.1.113883.17.3.11.10 **DYNAMIC** (CONF:10157)

NEMSIS Trace: eArrest.02

**Cardiac Arrest Cause example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.124" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67503-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac arrest cause NEMSIS" />

<value xsi:type="CD" code="LA17058-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Traumatic Cause" />

</observation>

#### Cardiac Arrest Outcome

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.184]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11565 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.184"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11376)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11350)**/@code**="77152-7" *Cardiac arrest event outcome*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11351)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11720), which **SHALL** be selected from ValueSet [*CardiacArrestOutcome*](#_bookmark217)2.16.840.1.113883.17.3.11.101 **DYNAMIC** (CONF:11352)

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

**Cardiac Arrest Outcome example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.184" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77152-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac arrest event outcome" />

<value xsi:type="CD" code="LA22797-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="LOINC Ongoing resuscitation by other EMS crew" />

</observation>

#### Cardiac Arrest Timing

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.123]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11517 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.123"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11245)

1. **SHALL** contain exactly one [1..1] **code/@code**="67502-5" *Cardiac arrest timing* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:11670)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet

[*CardiacArrestTiming*](#_bookmark218)2.16.840.1.113883.17.3.11.91 **DYNAMIC** (CONF:10153)

NEMSIS Trace: eArrest.01

**Cardiac Arrest Timing example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.123" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67502-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac arrest timing" />

<value xsi:type="CD" code="LA17054-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)" />

</observation>

#### Cardiac Rhythm

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.169]

Patient's cardiac rhythm classification

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11559 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.169"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11309)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10275)**/@code**="67519-9" *Cardiac rhythm NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10274)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11310) NEMSIS Trace: eVitals.01
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10278), which **SHALL** be

selected from ValueSet [*CardiacRhythmReading*](#_bookmark220)2.16.840.1.113883.17.3.11.16 **DYNAMIC**

(CONF:10279)

NEMSIS Trace: eVitals.03

1. **SHALL** contain at least one [1..\*] **methodCode** (CONF:10277), which **SHALL** be selected from ValueSet

[*MethodOfECGInterpretation*](#_bookmark275)2.16.840.1.113883.17.3.11.20 **DYNAMIC** (CONF:10276)

NEMSIS Trace: eVitals.05

1. **SHALL** contain exactly one [1..1] **participant** such that it (CONF:11127)
   1. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:11128)
      1. **SHALL** contain exactly one [1..1] **playingDevice** such that it (CONF:11129)
         1. **SHALL** contain exactly one [1..1] **code** (CONF:11311), which **SHALL** be selected from ValueSet

[*ECGType*](#_bookmark236)2.16.840.1.113883.17.3.11.19 **DYNAMIC** (CONF:11312)

*NEMSIS Trace: eVitals.04*

* + - 1. contain zero or one [0..1] **@classCode**="DEV"
      2. contain zero or one [0..1] **@determinerCode**="INSTANCE"

**Cardiac Rhythm example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.169" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67519-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac rhythm NEMSIS" />

<value xsi:type="CD" code="LA17068-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Asystole" />

<methodCode xsi:type="CD" code="LA18683-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Manual interpretation" />

<participant>

<participantRole>

<playingDevice classCode="DEV" eterminerCode="INSTANCE">

<code code="LA18666-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="5 lead" />

</playingDevice>

</participantRole>

</participant>

</observation>

#### Chest Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.195]

The assessment findings associated with the patient's chest.

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11609 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.195"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11597)**/@code**="11422-3" *Physical Findings of Chest Assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11596)
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11718), which **SHALL** be selected from ValueSet [*ChestFinding*](#_bookmark223)2.16.840.1.113883.17.3.11.118 **DYNAMIC** (CONF:11598)

NEMSIS Trace: eExam.25

1. **SHOULD** contain zero or one [0..1] **targetSiteCode** (CONF:11610), which **SHALL** be selected from ValueSet [*ChestFindingLocation*](#_bookmark224)2.16.840.1.113883.17.3.11.119 **DYNAMIC** (CONF:11611)

NEMSIS Trace: eExam.24

**Chest Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.195" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="11422-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Chest Assessment" />

<value xsi:type="CD" code="LA7452-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Laceration" />

</observation>

#### Complaint

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.63]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.63"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11169)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10768)**/@code**="10154-3" *Chief complaint Narrative - Reported* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10769)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11170) effectiveTime.low = NEMSIS Trace: eSituation.01
3. **MAY** contain zero or one [0..1] **value** with **@xsi:type**="ST" (CONF:10770)

NEMSIS Trace: eSituation.04

1. **SHALL** contain exactly one [1..1] **targetSiteCode** (CONF:10773), which **SHALL** be selected from ValueSet [*AnatomicLocation*](#_bookmark211)2.16.840.1.113883.17.3.11.76 **DYNAMIC** (CONF:10774)

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

1. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10771)
   1. contain exactly one [1..1] **observation**, where its type is [*Complaint Duration*](#_bookmark75)
2. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10772)
   1. contains at least one [1..\*] **observation**, where its type is [*Complaint Type*](#_bookmark77)
3. **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 complain"t*

* 1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Complaint Organ System*](#_bookmark76)(CONF:10782)

**Complaint example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.63" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="10154-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Chief complaint Narrative - Reported" /

>

<effectiveTime value="201201011627+0600" />

<value xsi:type="ST" value="Laceration" />

<targetSiteCode code="LA18111-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Chest" />

<entryRelationship>

. . .

</entryRelationship>

</observation>

#### Complaint Duration

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.139]

How long a complaint has lasted

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11531 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.139"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11268)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10779)**/@code**="67491-1" *Duration of chief complaint NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10780)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10781)

NEMSIS 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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.139" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67491-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Duration of chief complaint NEMSIS" />

<value xsi:type="PQ" value="1" unit="h" />

</observation>

#### Complaint Organ System

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.140]

The system that a complaint seems to affect

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11532 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.140"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11269)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10784)**/@code**="69468-7" *Primary anatomic organ system of chief complaint NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10783)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10786), which **SHALL** be selected from ValueSet [*OrganSystem*](#_bookmark280)2.16.840.1.113883.17.3.11.77 **DYNAMIC** (CONF:10785)

NEMSIS Trace: eSituation.08

**Complaint Organ System example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.140" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69468-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Primary anatomic organ system of chief complaint NEMSIS" />

<value xsi:type="CD" code="LA18283-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Pulmonary" />

</observation>

#### Complaint Type

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.138]

Whether a complaint is a chief complaint

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11530 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.138"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11266)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10777)**/@code**="72114-2" *Complaint NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10776)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10778), which **SHALL** be selected from ValueSet [*Complaint Type*](#_bookmark225)2.16.840.1.113883.17.3.11.94 **DYNAMIC** (CONF:11267)

NEMSIS Trace: eSituation.03

**Complaint Type example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.138" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="72114-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Complaint NEMSIS" />

<value xsi:type="CD" code="LA18923-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Chief - primary" />

</observation>

#### Crew Disposition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.198]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11588 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.198"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code/@code**="100039-7" *Crew Disposition* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:11589)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11591), which **SHALL** be selected from ValueSet [*CrewDisposition*](#_bookmark227)2.16.840.1.113883.17.3.11.120 **DYNAMIC** (CONF:11590)

NEMSIS Trace: eDisposition.29

**Crew Disposition example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.198" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="100039-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Crew Disposition" />

<value xsi:type="CD" code="LA33320-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Back in Service, Care/Support Services Refused" />

</observation>

#### Current Medication

[SubstanceAdministration: templateId 2.16.840.1.1133883.17.3.10.1.77]

A medication a patient is currently taking

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11469 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.77"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
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"

1. **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"

1. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:10230) NEMSIS Trace: eHistory.13, eHistory.14
2. **SHOULD** contain zero or one [0..1] **routeCode** (CONF:10232), which **SHALL** be selected from

ValueSet [*MedicationAdministrationRoute*](#_bookmark269)2.16.840.1.113883.17.3.11.43 **DYNAMIC**

(CONF:10231)

NEMSIS Trace: eHistory.15

1. **SHALL** contain exactly one [1..1] **consumable** such that it (CONF:10235)
   1. **SHALL** contain exactly one [1..1] **manufacturedProduct** such that it (CONF:10236)
      1. **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)

*NEMSIS Trace: eHistory.12 - Current Medications*

**Current Medication example**

<substanceAdministration classCode="SBADM" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.77" extension="2022-01-01" />

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<effectiveTime value="201201011604+0600" />

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial>

<code code="6809" displayName="metformin" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

#### Currently On Medication

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.75]

Whether a patient is currently taking medication

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11468 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.75"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11188)

1. **SHALL** contain exactly one [1..1] **code/@code**="67791-4" *Does the patient take any medications NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10224)

1. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.75" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67791-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Does the patient take any medications NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Delay Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.95]

Kinds of delays experienced by a responder

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11489 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.95"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10583)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Dispatch Delay*](#_bookmark87)(CONF:10588)
3. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10584)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Response Delay*](#_bookmark168)(CONF:10593)
4. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10585)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Scene Delay*](#_bookmark176)(CONF:10598)
5. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10586)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Transport Delay*](#_bookmark182)(CONF:10603)
6. **SHALL** contain exactly one [1..1] **component** such that it (CONF:10587)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Turnaround Delay*](#_bookmark189)(CONF:10608)

**Delay Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.95"/>

<id root="2.16.840.1.113883.19.4" extension="243446586"/>

<statusCode code="completed"/>

<component>

. . .

</component>

</organizer>

#### Destination Hospital Capability

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.104]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11567 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.104"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem:

2.16.840.1.113883.5.6 HL7ActClass) (CONF:11357)

1. **SHALL** contain exactly one [1..1] **@moodCode** (CONF:11360)
2. **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)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11361), which **SHALL** be selected from ValueSet [*HospitalCapability*](#_bookmark254)2.16.840.1.113883.17.3.11.104 **DYNAMIC** (CONF:11362)

NEMSIS trace: eDisposition.23 (Hospital Capability)

**Destination Hospital Capability example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.104" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77155-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Hospital designation capability" />

<value xsi:type="CD" code="LA22835-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Critical access hospital" />

</observation>

#### Destination Rhythm

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.129]

Patient's cardiac rhythm classification at destination

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11521 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.129"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11254)

1. **SHALL** contain exactly one [1..1] **code/@code**="67519-9" *Cardiac rhythm NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10189)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11719), which **SHALL** be selected from ValueSet [*CardiacRhythmReading*](#_bookmark220)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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.129" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67519-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac rhythm NEMSIS" />

<value xsi:type="PQ" value="50" unit="/m" />

</observation>

#### Destination Ward

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.186]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11568 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.186"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem:

2.16.840.1.113883.5.6 HL7ActClass) (CONF:11363)

1. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11380)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11364)**/@code**="77154-3" *Hospital inpatient destination*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11365)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11602), which **SHALL** be selected from ValueSet [*DestinationWardKind*](#_bookmark232)2.16.840.1.113883.17.3.11.103 **DYNAMIC** (CONF:11366)

NEMSIS trace: eDisposition.22 (Hospital In-Patient Destination)

**Destination Ward example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.186" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77154-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Hospital inpatient destination" />

<value xsi:type="CD" code="LA22810-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Hospital-CCU" />

</observation>

#### Diastolic Blood Pressure

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.144]

Patient's diastolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11534 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.144"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11272)

1. **SHALL** contain exactly one [1..1] **code/@code**="8462-4" *Diastolic blood pressure* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10282)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11273) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10283)

NEMSIS Trace: eVitals.07 UCUM units SHOULD be "mm[Hg]".

1. **SHALL** contain exactly one [1..1] **methodCode** (CONF:11346), which **SHALL** be selected from ValueSet [*BloodPressureMeasurementMethod*](#_bookmark215)2.16.840.1.113883.17.3.11.107 **DYNAMIC** (CONF:11347)

NEMSIS Trace: eVitals.08 (method of blood pressure measurement)

**Diastolic Blood Pressure example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.144" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="8462-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Diastolic blood pressure" />

<value xsi:type="PQ" value="60" unit="mm[Hg]" />

</observation>

#### Disaster Type

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.59]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11451 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.59"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11166)

1. **SHALL** contain exactly one [1..1] **code/@code**="69463-8" *Suspected intentional or unintentional disaster NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10132)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11721), which **SHALL** be selected from ValueSet [*DisasterType*](#_bookmark233)2.16.840.1.113883.17.3.11.9 **DYNAMIC** (CONF:10133)

NEMSIS Trace: eOther.07

**Disaster Type example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.59" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69463-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Suspected intentional or unintentional disaster NEMSIS" />

<value xsi:type="CD" code="LA18093-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Fire" />

</observation>

#### Dispatch Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.153]

Causes of delay to the dispatch process

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11543 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.153"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11286)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10590)**/@code**="67480-4" *Dispatch delay NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10589)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10592), which **SHALL** be selected from ValueSet [*DispatchDelayType*](#_bookmark234)2.16.840.1.113883.17.3.11.50 **DYNAMIC** (CONF:10591)

NEMSIS Trace: eResponse.08

**Dispatch Delay example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.153" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67480-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Dispatch delay NEMSIS" />

<value xsi:type="CD" code="LA17580-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="High call volume" />

</observation>

#### Dispatch Location Latitude

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.151]

Latitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11541 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.151"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11284)

1. **SHALL** contain exactly one [1..1] **code/@code**="69750-8" *EMS unit GPS latitude Vehicle --at dispatch*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10620)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10621)

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

**Dispatch Location Latitude example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.151" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69750-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS unit GPS latitude Vehicle --at dispatch" />

<value xsi:type="PQ" value="46.786939" unit="deg" />

</observation>

#### Dispatch Location Longitude

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.152]

Longitude of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11542 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.152"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11285)

1. **SHALL** contain exactly one [1..1] **code/@code**="69465-3" *EMS unit GPS longitude Vehicle --at dispatch*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10623)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10624)

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

**Dispatch Location Longitude example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.152" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69465-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS unit GPS longitude Vehicle --at dispatch" />

<value xsi:type="PQ" value="-92.098194" unit="deg" />

</observation>

#### Dispatch Location Name

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.150]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11540 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.150"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11283)

1. **SHALL** contain exactly one [1..1] **code/@code**="69466-1" *Vehicle location Vehicle NEMSIS --at dispatch*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10617)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="ST" (CONF:10618) NEMSIS Trace: eResponse.16

**Dispatch Location Name example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.150" extension="2022-01-01" /

>

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69466-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Vehicle location Vehicle NEMSIS --at dispatch" />

<value xsi:type="ST">Acme EMT Services</value>

</observation>

#### Dispatch Location Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.96]

Information about the location of the unit when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11490 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.96"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:10613)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Dispatch Location Name*](#_bookmark90)(CONF:10616)
3. **MAY** contain zero or one [0..1] **component** such that it (CONF:10614)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Dispatch Location Latitude*](#_bookmark88)

(CONF:10619)

1. **MAY** contain zero or one [0..1] **component** such that it (CONF:10615)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Dispatch Location Longitude*](#_bookmark89)

(CONF:10622)

**Dispatch Location Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.96"/>

<id root="2.16.840.1.113883.19.4" extension="243446586"/>

<statusCode code="completed"/>

<component>

. . .

</component>

</organizer>

#### Dispatch Notified Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.46]

The time the dispatching organization was notified of an emergency

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11438 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.46"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11151)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10867)**/@code**="69470-3" *Dispatch was notified by the 911 call taker [Date and time] Facility NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10866)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10868)

NEMSIS Trace: eTimes.02

**Dispatch Notified Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.46" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69470-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Dispatch was notified by the 911 call taker [Date and time] Facility NEMSIS" />

<value xsi:type="TS" value="201201011545+0600" />

</observation>

#### Dispatch Reason

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.74]

The complaint that dispatch reported to the responding unit

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11467 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.74"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11187)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10568)**/@code**="67570-2" *Chief complaint per dispatch Reported.dispatch* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10569)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10571), which **SHALL** be selected from ValueSet [*Dispatch Reason*](#_bookmark235)2.16.840.1.113883.17.3.11.49 **DYNAMIC** (CONF:10570)

NEMSIS Trace: eDispatch.01

**Dispatch Reason example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.74" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67570-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Chief complaint per dispatch" />

<value xsi:type="CD" code="LA17145-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Stab/gunshot wound/penetrating trauma" />

</observation>

#### Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.48]

An allergy or sensitivity to a drug. This statement follows the pattern of the Consolidated allergy observation, without the intervening "problem act" class. In this observation, as the Consolidated guide specifies, the code is "ASSERTION," and the value selected from 2.16.840.1.113883.3.88.12.3221.6.2. 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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.48"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
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)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD"**/@code**="416098002" *Drug allergy (disorder)* (CodeSystem: 2.16.840.1.113883.6.96 SNOMED CT) (CONF:11341)
2. **SHALL** contain exactly one [1..1] **participant** such that it (CONF:11126)
   1. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:10208)
      1. **SHALL** contain exactly one [1..1] **playingEntity** such that it (CONF:10209)

**a. SHALL** contain exactly one [1..1] **code** (CONF:11646), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm) (CONF:11645)

*NEMSIS Trace: eHistory.06*

*Drug codes are to be taken from RxNorm. Allergies to drug classes may be taken from ICD-10 CM.*

**Drug Allergy example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.48" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" />

<value xsi:type="CD" code=""416098002" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Drug allergy" />

<participant>

<participantRole>

<playingEntity>

<code code="83367" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNORM" displayName="atorvastatin" />

</playingEntity>

</participantRole>

</participant>

</observation>

#### Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.183]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11564 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.183"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11687)
   1. contain exactly one [1..1] **observation**, where its type is [*Drug Allergy*](#_bookmark94)
3. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11688)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Existence Of Known Drug Allergy*](#_bookmark100)[*Observation*](#_bookmark100)(CONF:11713)

**Drug Allergy Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.183"/>

<id root="2.16.840.1.113883.19.4" extension="243455586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Drug Use Indication

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.71]

Evidence that a patient has been using alcohol or illicit drugs

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11464 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.71"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11179)

1. **SHALL** contain exactly one [1..1] **code/@code**="67669-2" *Alcohol - drug use NEMSIS* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10250)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11613), which **SHALL** be selected from ValueSet [*AlcoholDrugUseIndicator*](#_bookmark210)2.16.840.1.113883.17.3.11.18 **DYNAMIC** (CONF:10251)

NEMSIS Trace: eHistory.17, proper values

**Drug Use Indication example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.71" extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67669-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Alcohol - drug use NEMSIS" />

<value xsi:type="CD" code="LA17326-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient admits to drug use" />

</observation>

#### Emergency Medical Dispatch Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.73]

Whether and how emergency medical dispatch was performed

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11466 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.73"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11186)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10564)**/@code**="67488-7" *Emergency medical dispatch performed NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10563)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10566), which **SHALL** be selected from ValueSet [*EMDPerformed*](#_bookmark237)2.16.840.1.113883.17.3.11.48 **DYNAMIC** (CONF:10565)

NEMSIS Trace: eDispatch.02

**Emergency Medical Dispatch Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.73"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67488-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Emergency medical dispatch

performed NEMSIS" />

<value xsi:type="CD" code="LA17151-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Yes, with pre-arrival instructions" />

</observation>

#### Existence Of Drug Use Indication

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.70]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11463 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.70"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11177)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10248)**/@code**="69757-3" *Indications of drug or alcohol use by the patient NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10247)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:11178) NEMSIS Trace: eHistory.17, positive, negative, or null values

**Existence Of Drug Use Indication example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.70"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69757-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Indications of drug or alcohol

use by the patient NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Existence Of History Of Condition Or Surgery

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.60]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11452 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.60"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11167)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11656)**/@code**="67793-0" *Has the patient had any significant medical conditions NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10067)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10068)

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

**Existence Of History Of Condition Or Surgery example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.60"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67793-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Has the patient had any significant medical conditions NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Existence Of Known Drug Allergy Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.102]

Indicator of whether patient has any allergies or sensitivities to drugs

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11498 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.102"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11213)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11663)**/@code**="67794-8" *Does the patient have any medication allergies NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10203)
2. **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 Known Drug Allergy Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.102"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67794-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Does the patient have any medication allergies NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Existence Of Known Non Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.103]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11499 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.103"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11214)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11664)**/@code**="69747-4" *Does the patient have any environmental allergies NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10214)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10215) If NEMSIS eHistory.07 has no values, this is FALSE; otherwise it is TRUE.

**Existence Of Known Non Drug Allergy example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.103"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69747-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Does the patient have any

environmental allergies NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Extremities Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.120]

Qualitative assessment of condition of patient's extremities

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11514 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.120"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11240)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10399)**/@code**="67533-0" *Physical findings of Extremity NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10400)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11241) NEMSIS Trace: eExam.03
3. **SHOULD** contain zero or more [0..\*] **value** with **@xsi:type**="CD" (CONF:11385), which **SHALL** be

selected from ValueSet [*ExtremitiesAssessmentFinding*](#_bookmark242)2.16.840.1.113883.17.3.11.36

**DYNAMIC** (CONF:10403)

NEMSIS Trace: eExam.16

1. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:10402), which **SHALL** be selected from ValueSet

[*ExtremityFindingLocation*](#_bookmark243)2.16.840.1.113883.17.3.11.37 **DYNAMIC** (CONF:10401)

NEMSIS Trace: eExam.15

**Extremities Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.120"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67533-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Extremity

NEMSIS" />

<value xsi:type="CD" code="LA17214-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Puncture/stab wound" />

<value xsi:type="CD" code="LA17208-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Bleeding controlled" />

<targetSiteCode code="LA18771-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Leg-upper-right" />

</observation>

#### Eye Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.121]

Qualitative assessment of condition of patient's eyes

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11515 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.121"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11242)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10405)**/@code**="67534-8" *Physical findings of Eye NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10404)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11243) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10408), which **SHALL** be

selected from ValueSet [*EyeAssessmentFinding*](#_bookmark244)2.16.840.1.113883.17.3.11.38 **DYNAMIC**

(CONF:10409)

NEMSIS Trace: eExam.18

1. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:10406), which **SHALL** be selected from ValueSet

[*EyeFindingLocation*](#_bookmark245)2.16.840.1.113883.17.3.11.39 **DYNAMIC** (CONF:10407)

NEMSIS Trace: eExam.17

**Eye Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.121"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67534-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Eye NEMSIS" />

<value xsi:type="CD" code="LA15255-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Reactive" />

<targetSiteCode code="LA18787-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Eyes-bilateral" />

</observation>

#### Face Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.112]

Qualitative assessment of condition of patient's face

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11507 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.112"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11224)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10376)**/@code**="67526-4" *Physical findings of Face NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10375)
2. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:11225) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10377), which **SHALL** be

selected from ValueSet [*FaceAssessmentFinding*](#_bookmark247)2.16.840.1.113883.17.3.11.27 **DYNAMIC**

(CONF:10378)

NEMSIS Trace: eExam.06

**Face Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.112"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67526-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Face NEMSIS" />

<value xsi:type="CD" code="LA6626-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Normal" />

</observation>

#### First Unit Indicator

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.84]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.84"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11197)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10741)**/@code**="67481-2" *First EMS unit on scene NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10742)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10743) NEMSIS Trace: eScene.01

**First Unit Indicator example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.84"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67481-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="First EMS unit on scene NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Glasgow Coma Score Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.170]

Collection of Glasgow Coma Score observations

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11560 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.170"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11313) NEMSIS Trace: eVitals.01
3. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11677)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Glasgow Eye*](#_bookmark107)(CONF:11682)
4. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11678)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Glasgow Motor*](#_bookmark108)(CONF:11683)
5. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11679)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Glasgow Qualifier*](#_bookmark109)(CONF:11684)
6. **SHOULD** contain zero or one [0..1] **component** such that it (CONF:11680)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Glasgow Total*](#_bookmark110)(CONF:11685)
7. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11681)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Glasgow Verbal*](#_bookmark111)(CONF:11686)

**Glasgow Coma Score Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.170"/>

<id root="2.16.840.1.113883.19.4" extension="243466586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Glasgow Eye

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.160] Glasgow Coma eye score

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11550 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.160"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11294)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10325)**/@code**="9267-6" *Glasgow coma score.eye opening*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10324)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10326) NEMSIS Trace: eVitals.19

**Glasgow Eye example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.160"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="9267-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow coma score.eye opening" />

<value xsi:type="INT" value="3" />

</observation>

#### Glasgow Motor

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.192]

Glasgow Coma motor score

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11551 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.192"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11295)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10328)**/@code**="9268-4" *Glasgow coma score.motor*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10329)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10330) NEMSIS Trace: eVitals.21

**Glasgow Motor example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.192"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="9268-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow coma score.motor" />

<value xsi:type="INT" value="3" />

</observation>

#### Glasgow Qualifier

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.159]

Qualifier for Glasgow Coma score

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11549 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.159"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11292)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10322)**/@code**="55285-1" *Glasgow coma score special circumstances* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10321)
2. **MAY** contain zero or more [0..\*] **value** with **@xsi:type**="CD" (CONF:10323), which **SHALL** be selected from ValueSet [*GlasgowComaScoreSpecialCircumstances*](#_bookmark250)2.16.840.1.113883.17.3.11.89 **DYNAMIC** (CONF:11293)

NEMSIS Trace: eVitals.22

**Glasgow Qualifier example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.159"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="5285-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow coma score special circumstances" />

<value xsi:type="CD" code="LA17102-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Initial GCS has legitimate values without interventions such as intubation and sedation" />

</observation>

#### Glasgow Total

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.158]

Total Glasgow Coma score

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11548 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.158"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11291)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10319)**/@code**="9269-2" *Glasgow coma score.total*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10318)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10320) NEMSIS Trace: eVitals.23 Integer value equal to the sum of verbal, motor, and eye

**Glasgow Total example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.158"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="9269-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow coma score.total" />

<value xsi:type="INT" value="9" />

</observation>

#### Glasgow Verbal

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.162]

Glasgow Coma verbal score

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11552 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.162"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11296)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10332)**/@code**="9270-0" *Glasgow coma score.verbal*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10333)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10334) NEMSIS Trace: eVitals.20

**Glasgow Verbal example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.162"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="9270-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Glasgow coma score.verbal" />

<value xsi:type="INT" value="3" />

</observation>

#### Head Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.113]

Qualitative assessment of condition of patient's head

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11508 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.113"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11226)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10373)**/@code**="67525-6" *Physical findings of Head NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10372)
2. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:11227) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD", which **SHALL** be selected from ValueSet

[*HeadAssessmentFinding*](#_bookmark252)2.16.840.1.113883.17.3.11.26 **DYNAMIC** (CONF:10374)

NEMSIS Trace: eExam.05

**Head Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.113"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67525-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Head NEMSIS" />

<value xsi:type="CD" code="LA17208-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Bleeding controlled" />

</observation>

#### Heart Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.116]

Qualitative assessment of condition of patient's heart

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11510 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.116"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11232)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10384)**/@code**="67529-8" *Physical findings of Heart NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10383)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11233) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10385), which **SHALL** be selected

from ValueSet [*HeartAssessmentFinding*](#_bookmark253)2.16.840.1.113883.17.3.11.30 **DYNAMIC**

(CONF:10386)

NEMSIS Trace: eExam.09

**Heart Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.116"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67529-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Heart NEMSIS" />

<value xsi:type="CD" code="LA17240-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Murmur-diastolic" />

</observation>

#### Heart Rate

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.145] Measurement of rate of heartbeat

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11535 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.145"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11274)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10285)**/@code**="8867-4" *Heart rate* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10284)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11275) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10286)

NEMSIS Trace: eVitals.10 UCUM units SHOULD be "/min".

**Heart Rate example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.145"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="8867-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Heart rate" />

<value xsi:type="PQ" value="57" unit="/min" />

</observation>

#### Height Of Fall

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.58]

Distance patient fell, if injury is fall-related

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11450 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.58"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11164)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11655)**/@code**="67501-7" *Height of fall NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10129)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:11165) NEMSIS Trace: eInjury.09 Units SHOULD be in feet (UCUM 'ft\_i')

**Height Of Fall example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.58"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67501-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Height of fall NEMSIS" />

<value xsi:type="PQ" value="12.5" unit="ft\_i" />

</observation>

#### Initial Patient Acuity

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.69]

Patient condition indicating urgency of treatment on arrival at patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11462 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.69"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11176)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10816)**/@code**="67493-7" *Initial patient acuity NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10817)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10818), which **SHALL** be selected from ValueSet [*InitialPatientCondition*](#_bookmark261)2.16.840.1.113883.17.3.11.59 **DYNAMIC** (CONF:10819)

NEMSIS Trace: eSituation.13

**Initial Patient Acuity example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.69"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67493-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Initial patient acuity NEMSIS" />

<value xsi:type="CD" code="LA17695-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Emergent (Yellow)" />

</observation>

#### Injury Cause Category

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.50]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11442 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.50"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11155)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11649)**/@code**="69543-7" *Cause of injury NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10106)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11614), 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 and parts of XIX.

**Injury Cause Category example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.50"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69543-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cause of injury NEMSIS" />

<value xsi:type="CD" code="V49.6" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" displayName="Collision with unspecified motor vehicles, NOS" />

</observation>

#### Injury Mechanism

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.51]

General classification of physical force causing injury

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11443 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.51"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11156)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11650)**/@code**="67494-5" *General mechanism of the forces which caused the injury NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10109)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11615), which **SHALL** be selected from ValueSet [*MechanismOfInjury*](#_bookmark268)2.16.840.1.113883.17.3.11.1 **DYNAMIC** (CONF:10110)

NEMSIS Trace: eInjury.02

**Injury Mechanism example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.51"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67494-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="General mechanism of the forces which caused the injury NEMSIS" />

<value xsi:type="CD" code="LA17335-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Blunt" />

</observation>

#### Last Oral Intake

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.80]

Time of patient's last oral intake

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11475 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.80"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11193)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10423)**/@code**="67517-3" *Last oral intake [Date and time] NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10424)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10425) NEMSIS Trace: eHistory.19

**Last Oral Intake example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.80"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67517-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Last oral intake [Date and time] NEMSIS" />

<value xsi:type="TS" value="201201011450+0600" />

</observation>

#### Length Based Patient Body Weight Class

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.110]

Classification of patient weight based on length

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11506 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.110"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11221)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10366)**/@code**="67670-0" *Length-based tape measure category NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10365)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11603), which **SHALL** be selected from ValueSet [*LengthBasedWeightClass*](#_bookmark264)2.16.840.1.113883.17.3.11.24 **DYNAMIC** (CONF:10367)

NEMSIS Trace: eExam.02 Length Based Tape Measure. Note: a license is required to implement the Broselow- Luten measure.

**Length Based Patient Body Weight Class example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.110"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67670-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Length-based tape measure category NEMSIS" />

<value xsi:type="CD" code="LA15553-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Blue" />

</observation>

#### Level Of Responsiveness

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.165] Patient's responsiveness

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11555 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.165"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11301)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10303)**/@code**="67775-7" *Level of responsiveness NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10302)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11302) NEMSIS Trace: eVitals.01
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10305), which **SHALL** be

selected from ValueSet [*LevelOfResponsiveness*](#_bookmark265)2.16.840.1.113883.17.3.11.21 **DYNAMIC**

(CONF:10304)

NEMSIS Trace: eVitals.26

**Level Of Responsiveness example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.165"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67775-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Level of responsiveness NEMSIS" />

<value xsi:type="CD" code="LA9340-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Alert" />

</observation>

#### Level Of Service Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.92]

CMS classification of service level for billing purposes

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11486 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.92"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11208)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10090)**/@code**="69464-6" *Centers for medicare - medicaid, CMS, service level NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10091)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10092), which **SHALL** be selected from ValueSet [*EMSLevelOfService*](#_bookmark238)2.16.840.1.113883.17.3.11.70 **DYNAMIC** (CONF:10093)

NEMSIS Trace: ePayment.50

**Level Of Service Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.92"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69464-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Centers for medicare - medicaid, CMS, service level NEMSIS" />

<value xsi:type="CD" code="LA18102-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="ALS, level 1" />

</observation>

#### Location Type Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.88]

Kind of location where the incident occurred

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11482 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.88"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11662)**/@code**="74496-1" *Injury location ICD code*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11202)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11717), which **SHALL** be selected from (CodeSystem: 2.16.840.1.113883.6.90 ICD-10 CM) (CONF:11203)

NEMSIS trace: eScene.09 (Incident location type) See NEMSIS recommended subset at https://nemsis.org/ technical-resources/version-3/version-3-resources/. ICD-10 CM contains "place of occurrence of external cause" under code Y92.

**Location Type Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.88"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="74496-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Injury location ICD code" />

<value xsi:type="CD" code="Y92.413" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" displayName="State road as the place of occurrence of the external cause" />

</observation>

#### Lung Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.194]

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11572 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.194"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11701)**/@code**="32449-1" *Physical Findings of Lung Assessment* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11573)
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11575), which **SHALL** be selected from ValueSet [*LungFinding*](#_bookmark266)2.16.840.1.113883.17.3.11.116 **DYNAMIC** (CONF:11574)

NEMSIS Trace: eExam.23

1. **SHOULD** contain zero or one [0..1] **targetSiteCode** (CONF:11577), which **SHALL** be selected from ValueSet [*LungFindingLocation*](#_bookmark267)2.16.840.1.113883.17.3.11.117 **DYNAMIC** (CONF:11576)

NEMSIS Trace: eExam.22

**Lung Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.194"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="32449-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Lung Assessment Finding" />

<value xsi:type="CD" code="LA33354-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Breath Sounds-Decreased" />

<targetSiteCode code="LA25377-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Bilateral" />

</observation>

#### Mass Casualty Indicator

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.87]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.87"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11200)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10753)**/@code**="67490-3" *Mass casualty incident NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11201)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10754) NEMSIS Trace: eScene.07

**Mass Casualty Indicator example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.87"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67490-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Mass casualty incident NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Medical/Surgical History

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.61]

Medical conditions the patient has or has had

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11453 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.61"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11168)

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

For a categorical "none reported," use the Existence Of History Of Condition or Surgery.

1. **SHALL** contain exactly one [1..1] **code** (CONF:10070)**/@code**="68487-8" *Medical - surgical history - ICD-9 and 10 codes* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10069)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10072), which **SHALL** be selected from ValueSet [*ICD-10 CM AND PCS*](#_bookmark258)2.16.840.1.113883.17.3.11.121 **DYNAMIC** (CONF:11454)

NEMSIS Trace: eHistory. 08

**Medical/Surgical History example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.61"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="68487-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Medical - surgical history - ICD-10 codes" />

<value xsi:type="CD" code="E10" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10" displayName="Type 1 diabetes mellitus" />

</observation>

#### Medication Administered

[SubstanceAdministration: templateId 2.16.840.1.1133883.17.3.10.1.72]

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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.72"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
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)

NEMSIS 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 (2.16.840.1.1133883.17.3.10.1.105)

1. **SHALL** contain zero or one [0..1] **effectiveTime** (CONF:10447) NEMSIS Trace: eMedications.01 Null Flavor for pertinent negative cases = NA
2. **MAY** contain zero or one [0..1] **routeCode** (CONF:10450), which **SHALL** be selected from ValueSet

[*MedicationAdministrationRoute*](#_bookmark269)2.16.840.1.113883.17.3.11.43 **DYNAMIC**

(CONF:10449)

NEMSIS Trace: eMedications.04 See appendix "NEMSIS Routes Mapped to FDA Routes of Administration" for mapping NEMSIS values to FDA values and for postcoordination of device information.

1. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:10446)

NEMSIS Trace: eMedications.05, eMedications.06 Note: rate values should be recorded in rateQuantity, dose in doseQuantity.

1. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:7517)

NEMSIS Trace: eMedications.05, eMedications.06 Note: rate values should be recorded in rateQuantity, dose in doseQuantity.

1. **MAY** contain zero or one [0..1] **approachSiteCode** (CONF:11723), which **SHALL** be selected from ValueSet [*MedicationAdministrationSite*](#_bookmark270)2.16.840.1.113883.17.3.11.109 **DYNAMIC** (CONF:11629)

Two NEMSIS route (eMedications.04) values imply sites in addition to routes: "nasotracheal tube" and "tracheostomy"

1. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10451)

*This observation is required if negationInd = True.*

* 1. **SHALL** contain exactly one [1..1] **@inversionInd**="TRUE" (CONF:10458)
  2. **SHALL** contain exactly one [1..1] **@typeCode** (CONF:10460)**/@code**="RSON" *Reason* (CodeSystem: ) (CONF:10459)
  3. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Medication Not Administered Reason*](#_bookmark129)[*Observation*](#_bookmark129)(CONF:10461)

1. **SHALL** contain exactly one [1..1] **consumable** such that it (CONF:10452)
   1. **SHALL** contain exactly one [1..1] **manufacturedProduct** such that it (CONF:10465)
      1. **SHALL** contain exactly one [1..1] **manufacturedMaterial** such that it (CONF:10466)
         1. **SHALL** contain exactly one [1..1] **code** (CONF:11620), which **SHOULD** be selected from (CodeSystem: 2.16.840.1.113883.6.88 RxNorm) (CONF:10467)

*NEMSIS Trace: eMedications.03*

*Note: all of RxNorm is valid in this field, but NEMSIS provides a selected list at https://nemsis.org/ technical-resources/version-3/version-3-resources/.*

*For blood products, the following SNOMED CT codes may be used: 116762002 Administration of blood product*

*116795008 Transfusion of cryoprecipitate 116861002 Transfusion of fresh frozen plasma 116865006 Administration of albumin*

*180208003 Intravenous blood transfusion of platelets 33389009 Transfusion of whole blood*

*71493000 Transfusion of packed red blood cells*

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10453)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Medication Response Observation*](#_bookmark131)

(CONF:10468)

1. **MAY** contain zero or more [0..\*] **entryRelationship** such that it (CONF:10454)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Medication Complication Observation*](#_bookmark128)

(CONF:10472)

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:10455)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Medication Prior Administration*](#_bookmark130)[*Observation*](#_bookmark130)(CONF:10477)
2. **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.*

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

*NEMSIS Trace: eMedications.09*

* + 1. **SHALL** contain exactly one [1..1] **code** (CONF:10482), which **SHALL** be selected from ValueSet

[*ProviderRole*](#_bookmark290)2.16.840.1.113883.17.3.11.46 **DYNAMIC** (CONF:10483)

*NEMSIS Trace: eMedications.10*

1. **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.*

* 1. **SHALL** contain exactly one [1..1] **act** such that it (CONF:10485)
     1. **SHALL** contain exactly one [1..1] **@classCode** (CONF:10486)**/@code**="INFRM" (CodeSystem: ) (CONF:10487)
     2. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [*MedicationAuthorizationType*](#_bookmark271)2.16.840.1.113883.17.3.11.47 **DYNAMIC** (CONF:10488)

*NEMSIS Trace: eMedications.11 - Medication Authorization channel*

1. **MAY** contain zero or one [0..1] **participant** such that it (CONF:11074)
   1. **SHALL** contain exactly one [1..1] **@typeCode**="DEV" (CONF:11182)
   2. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:11075)
      1. **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CONF:11183)
      2. **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*](#_bookmark239)2.16.840.1.113883.17.3.11.108 **DYNAMIC** (CONF:11716)

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

**Medication Administered example**

<substanceAdministration classCode="SBADM" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.72"

extension="2022-01-01" />

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<effectiveTime value="201201011604+0600" />

<routeCode code="C38216" displayName="Respiratory" codeSystem="2.16.840.1.113883.3.26.1.1.1" codeSystemName="FDA Route of Administration" />

<approachSiteCode code="15562006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="structure of respiratory region of nose" />

<doseQuantity value="15" unit="L/min" />

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial>

<code code="7806" displayName="Oxygen" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<performer>

<assignedEntity>

<id root="2.16.840.1.113883.19.4" extension="908786906" />

<code code="LA18703-1" displayName="EMT-paramedic" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

</assignedEntity>

</performer>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code = "425926003" codeSystem="2.16.840.1.113883.6.5" displayName="partial rebreather oxygen mask" codeSystemName="SNOMED CT" />

</playingDevice>

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<code code="67540-5" displayName="Response to medication" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17181-1" displayName="Unchanged" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<code code="67539-7" displayName="Prioradministration" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="BL" value="false" />

</observation>

</entryRelationship>

</substanceAdministration>

#### Medication Complication Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.107]

Complications associated with the administration of a medication

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11503 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.107"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11218)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10473)**/@code**="67541-3" *Medication complication NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10474)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10475), which **SHALL** be selected from ValueSet [*MedicationComplication*](#_bookmark272)2.16.840.1.113883.17.3.11.45 **DYNAMIC** (CONF:10476)

NEMSIS Trace: eMedications.08

**Medication Complication Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.107"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67541-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Medication complication NEMSIS" />

<value xsi:type="CD" code="LA15098-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Nausea" />

</observation>

#### Medication Not Administered Reason Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.105]

Reason for declining to administer a medication

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11501 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.105"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11216)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11666)**/@code**="ASSERTION" *Assertion* (CodeSystem:

2.16.840.1.113883.5.4 ActCode) (CONF:10462)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10463), which **SHALL** be selected from ValueSet [*MedicationNotGivenReason*](#_bookmark273)2.16.840.1.113883.17.3.11.92 **DYNAMIC** (CONF:10464)

NEMSIS Trace: eMedications.03 pertinent negatives

**Medication Not Administered Reason Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.105"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode" displayName="Assertion" />

<value xsi:type="CD" code="LA18921-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Medication already taken" />

</observation>

#### Medication Prior Administration Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.108]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11504 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.108"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11219)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10478)**/@code**="67539-7" *Medication administered prior to this unit's EMS care NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10479)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10480) NEMSIS Trace: eMedications.02

**Medication Prior Administration Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.108"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67539-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Medication administered prior to this unit's EMS care NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Medication Response Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.106]

Whether the patients condition improved after medication administration

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11502 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.106"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11217)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10469)**/@code**="67540-5" *Response to medication NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10470)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11384), which **SHALL** be selected from ValueSet [*ChangeInPatientStatus*](#_bookmark222)2.16.840.1.113883.17.3.11.78 **DYNAMIC** (CONF:10471)

NEMSIS Trace: eMedications.07

**Medication Response Observation example**

<observation classCode="OBS" moodCode="EVN">

<code code="67540-5" displayName="Response to medication" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="CD" code="LA17181-1" displayName="Unchanged" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

#### Mental Status Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.122]

Qualitative assessment of condition of patient's mental status

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11516 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.122"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11244)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10410)**/@code**="67535-5" *Mental status assessment NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10411)
2. contain exactly one [1..1] **effectiveTime**

NEMSIS Trace: eExam.03

1. **SHOULD** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11608), which **SHALL** be selected from ValueSet [*MentalStatusFinding*](#_bookmark274)2.16.840.1.113883.17.3.11.84 **DYNAMIC** (CONF:10412)

NEMSIS Trace: eExam.19

**Mental Status Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.122"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67535-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Mental status assessment NEMSIS" />

<value xsi:type="CD" code="LA17289-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oriented-place" />

<value xsi:type="CD" code="LA17290-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oriented-time" />

</observation>

#### Neck Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.114]

Qualitative assessment of condition of patient's neck

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11509 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.114"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11228)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11668)**/@code**="67527-2" *Physical findings of Neck NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10379)
2. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:11229) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11605), which **SHALL** be

selected from ValueSet [*NeckAssessmentFinding*](#_bookmark277)2.16.840.1.113883.17.3.11.28 **DYNAMIC**

(CONF:10380)

NEMSIS Trace: eExam.07

**Neck Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.114"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67527-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Neck NEMSIS" />

<value xsi:type="CD" code="LA18220-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Avulsion" />

</observation>

#### Neurological Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.141]

Qualitative assessment of condition of patient's neurological response

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11533 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.141"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11270)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10414)**/@code**="67536-3" *Neurological assessment Nervous system NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10413)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10415), which **SHALL** be selected from ValueSet [*NeurologicalAssessmentFinding*](#_bookmark278)2.16.840.1.113883.17.3.11.40 **DYNAMIC** (CONF:10416)

NEMSIS Trace: eExam.20

**Neurological Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.141"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67536-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Neurological assessment Nervous system NEMSIS" />

<value xsi:type="CD" code="LA18262-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Aphasia" />

</observation>

#### Non Drug Allergy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.104]

Patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11500 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.104"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11215)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11665)**/@code**="79151-7" *Known allergies to food or environmental agents Narrative NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10216)

Required if Existence is True

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11612), which **SHALL** be selected from ValueSet [*NonDrugAllergyType*](#_bookmark279)2.16.840.1.113883.17.3.11.83 **DYNAMIC** (CONF:10217)

NEMSIS Trace: eHistory.07 - Environmental/Food Allergies

**Non Drug Allergy example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.104"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="79151-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Known allergies to food or environmental agents Narrative NEMSIS" />

<value xsi:type="CD" code="419474003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="Allergy to mold (finding)" />

</observation>

#### Non Drug Allergy Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.49]

Information regarding patient allergies and sensitivities to materials other than drugs

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11441 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.49"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain [1..1] **component** such that it (CONF:10212)
   1. Conforms to [*Existence Of Known Non Drug Allergy*](#_bookmark101)(templateId:

2.16.840.1.1133883.17.3.10.1.103:2022-01-01)

1. **MAY** contain [0..\*] **component** such that it (CONF:10213)
   1. Conforms to [*Non Drug Allergy*](#_bookmark135)(templateId: 2.16.840.1.1133883.17.3.10.1.104:2022-01-01)

**Non Drug Allergy Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.49"/>

<id root="2.16.840.1.113883.19.4" extension="247746586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Number Of Patients Transported Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.31]

The number of patients transported by this EMS crew and unit

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11423 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.31"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11136)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10665)**/@code**="67547-0" *Patients transported in EMS unit [#] NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10664)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10666) NEMSIS Trace: eDisposition.11

**Number Of Patients Transported Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.131"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67547-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patients transported in EMS unit [#] NEMSIS" />

<value xsi:type="INT" value="1" />

</observation>

#### Other Symptoms

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.67]

Symptoms other than the primary symptom

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11460 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.67"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11174)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10806)**/@code**="67776-5" *Other symptoms NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10807)

1. **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)

NEMSIS Trace: eSituation.10

**Other Symptoms example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.67"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67776-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Other symptoms NEMSIS" />

<value xsi:type="CD" code=" R11.0" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10" displayName="Nausea" />

</observation>

#### Oxygen Saturation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.177]

Measurement of the patient's arterial blood oxygen saturation

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11538 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.177"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11281)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11675)**/@code**="2708-6" *Oxygen saturation in Arterial blood* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10291)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11348)
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10292) NEMSIS Trace: eVitals.12 UCUM units will typically be "%".

**Oxygen Saturation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.177"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="2708-6 codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oxygen saturation in Arterial blood" />

<value xsi:type="PQ" value="92" unit="%" />

</observation>

#### Pain Score

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.164]

Assessment of the patient's level of pain

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11554 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.164"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11299)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11676)**/@code**="56840-2" *Pain severity verbal numeric scale* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10306)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11300) NEMSIS Trace: eVitals.01
3. contain exactly one [1..1] **value** with **@xsi:type**="INT"

NEMSIS 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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.164"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="56840-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Pain severity verbal numeric scale" />

<value xsi:type="INT" value="6" />

</observation>

#### Patient Age

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.81]

The age of the patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11476 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.81"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11194)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10427)**/@code**="30525-0" *Age* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10428)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10429) NEMSIS Trace: ePatient.15, 16 UCUM units SHOULD be 'min' 'h' 'd' 'wk' 'mo' or 'a'

**Patient Age example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.81"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="30525-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Age" />

<value xsi:type="PQ" value="32" unit="a" />

</observation>

#### Patient Arrived At Destination Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.44]

The time the EMS crew delivered the patient to the destination

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11436 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.44"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11149)

1. **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 NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10858)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10860) NEMSIS Trace: eTimes.11

**Patient Arrived At Destination Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.44"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69476-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Responding unit arrived with the patient at the destination or transfer point [Date and time] Vehicle NEMSIS" />

<value xsi:type="TS" value="201201011450+0600" />

</observation>

#### Patient Body Weight

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.178]

Patient's body weight

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11505 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.178"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11220)

NEMSIS Trace: eExam.03

1. **SHALL** contain exactly one [1..1] **code** (CONF:11667)**/@code**="8335-2" *Body weight Estimated*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10363)

1. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:11604)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10364) NEMSIS Trace: eExam.01 UCUM units should be 'kg'

**Patient Body Weight example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.178"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="8335-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Body weight Estimated" />

<value xsi:type="PQ" value="100" unit="kg" />

</observation>

#### Patient Condition At Destination Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.37]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11429 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.37"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11142)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10694)**/@code**="77941-3" *Final patient acuity NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10693)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10695), which **SHALL** be selected from ValueSet [*InitialPatientCondition*](#_bookmark261)2.16.840.1.113883.17.3.11.59 **DYNAMIC** (CONF:10696)

NEMSIS Trace: eDisposition.19

**Patient Condition At Destination Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.37"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77941-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Final patient acuity NEMSIS" />

<value xsi:type="CD" code="LA17695-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Emergent (Yellow)" />

</observation>

#### Patient Engagement

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.197]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11583 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.197"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11585)**/@code**="100038-9" *Patient evaluation disposition*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11584)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11587), which **SHALL** be selected from ValueSet [*PatientEngagement*](#_bookmark281)2.16.840.1.113883.17.3.11.113 **DYNAMIC** (CONF:11586)

NEMSIS Trace: eDisposition.28

**Patient Engagement example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.197"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="100038-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient Engagement" />

<value xsi:type="CD" code="LA33309-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient Evaluated and Care Provided" />

</observation>

#### Patient Location In Vehicle

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.55]

Patient's location in a vehicle during a vehicle collision

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11447 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.55"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11160)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11653)**/@code**="67498-6" *Location of patient in vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10120)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11618), which **SHALL** be selected from ValueSet [*VehiclePassengerLocation*](#_bookmark319)2.16.840.1.113883.17.3.11.6 **DYNAMIC** (CONF:10121)

NEMSIS Trace: eInjury.06 - Location of Patient in Vehicle

**Patient Location In Vehicle example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.55"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67498-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Location of patient in vehicle NEMSIS" />

<value xsi:type="CD" code="LA17362-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Front seat-right side" />

</observation>

#### Patient Pregnancy

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.79]

Indication of whether the patient is pregnant

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11474 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.79"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11192)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10418)**/@code**="67471-3" *Pregnancy* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10419)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10420), which **SHALL** be selected from ValueSet [*Pregnancy*](#_bookmark284)2.16.840.1.113883.17.3.11.42 **DYNAMIC** (CONF:10421)

NEMSIS Trace: eHistory.18

**Patient Pregnancy example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.79"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67471-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Pregnancy" />

<value xsi:type="CD" code="LA17330-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Yes, confirmed 12 to 20 weeks" />

</observation>

#### Pelvic And Genitourinary Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.118] Qualitative assessment of condition of patient's pelvic and genitourinary region

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11512 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.118"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11236)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11669)**/@code**="67531-4" *Physical findings of Pelvis*

*+Genitourinary NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10390)

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:11237) NEMSIS Trace: eExam.03
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10392), which **SHALL** be

selected from ValueSet [*PelvisGenitourinaryAssessment*](#_bookmark283)2.16.840.1.113883.17.3.11.33

**DYNAMIC** (CONF:10391)

NEMSIS Trace: eExam.12

**Pelvic And Genitourinary Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.118"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67531-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Physical findings of Pelvis

+Genitourinary NEMSIS" />

<value xsi:type="CD" code="LA17709-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Tenderness" />

</observation>

#### Physical Assessment Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.78]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11470 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.78"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:11103)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Skin Assessment*](#_bookmark178)(CONF:11712)
3. **MAY** contain zero or one [0..1] **component** such that it (CONF:11105)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Head Assessment*](#_bookmark112)(CONF:11104)
4. **MAY** contain zero or one [0..1] **component** such that it (CONF:11342)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Neurological Assessment*](#_bookmark134)(CONF:11659)
5. **MAY** contain zero or one [0..1] **component** such that it (CONF:11107)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Face Assessment*](#_bookmark104)(CONF:11106)
6. **MAY** contain zero or one [0..1] **component** such that it (CONF:11109)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Neck Assessment*](#_bookmark133)(CONF:11108)
7. **MAY** contain zero or one [0..1] **component** such that it (CONF:11113)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Heart Assessment*](#_bookmark113)(CONF:11112)
8. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11115)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Abdomen Assessment*](#_bookmark51)(CONF:11114)
9. **MAY** contain zero or one [0..1] **component** such that it (CONF:11117)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Pelvic And Genitourinary Assessment*](#_bookmark148)

(CONF:11116)

1. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11119)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Back And Spine Assessment*](#_bookmark59)

(CONF:11118)

1. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11121)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Extremities Assessment*](#_bookmark102)(CONF:11120)
2. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11123)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Eye Assessment*](#_bookmark103)(CONF:11122)
3. **MAY** contain zero or one [0..1] **component** such that it (CONF:11125)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Mental Status Assessment*](#_bookmark132)

(CONF:11124)

1. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11657)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Lung Assessment*](#_bookmark124)(CONF:11660)
2. **MAY** contain zero or more [0..\*] **component** such that it (CONF:11658)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Chest Assessment*](#_bookmark73)(CONF:11661)

**Physical Assessment Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.78"/>

<id root="2.16.840.1.113883.19.4" extension="243432586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Possible Injury

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.64]

Indicator of whether a patient may have an injury

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11457 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.64"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11171)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10792)**/@code**="69467-9" *Possible injury NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10793)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10794) NEMSIS Trace: eSituation.02 For "unknown," use NullFlavor=UNK.

**Possible Injury example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.64"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69467-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Possible injury NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Prearrival Activation Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.36]

Indication of whether destination was activated prior to patient arrival

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11427 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.36"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11141)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10689)**/@code**="69462-0" *Activation of the destination healthcare facility team NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10688)
2. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10691)

NEMSIS Trace: eDisposition.25 Required if element value is a positive value (not "no").

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10690), which **SHALL** be selected from ValueSet [*DestinationPrearrivalActivation*](#_bookmark230)2.16.840.1.113883.17.3.11.87 **DYNAMIC** (CONF:11428)

NEMSIS Trace: eDisposition.24

**Prearrival Activation Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.36"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69462-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Activation of the destination healthcare facility team NEMSIS" />

<value xsi:type="CD" code="LA18117-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Yes, adult trauma" />

</observation>

#### Primary Symptom

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.66]

The primary symptom present in the patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11459 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.66"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11173)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10801)**/@code**="67774-0" *Primary sign and symptom NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10802)
2. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.66"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67774-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Primary sign and symptom NEMSIS" />

<value xsi:type="CD" code="S29.9" displayName="Unspecified injury of thorax" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" />

</observation>

#### Prior Aid Vitals

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.29]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11422 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.29"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11131)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11644)**/@code**="67518-1" *Obtained prior to units EMS care NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10273)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:11132) NEMSIS Trace: eVitals.02

**Prior Aid Vitals example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.29"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67774-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="67518-1" Obtained prior to units EMS care NEMSIS" />

<value xsi:type="BL" value="false" />

</observation>

#### Procedure

[Procedure: templateId 2.16.840.1.1133883.17.3.10.1.181]

Procedure performed by EMS unit

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11496 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.181"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or one [0..1] **@negationInd** (CONF:11212)

Required to document a procedure not performed, with required "reason not performed" observation

1. **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)

NEMSIS Trace: eProcedures.03, for which use SNOMED CT. See the NEMSIS Suggested Lists at https:// nemsis.org/. NEMSIS Trace: eArrest.09, for which use 439569004 |Resuscitation (procedure)|, with a translation of Cardiopulmonary Resuscitation type (VS 2.16.840.1.1133883.17.3.11.57). NEMSIS Trace: eArrest.10 (therapeutic hypothermia); include here as 308693008 |Induction of hypothermia (procedure)|, using negation indicator if not done NEMSIS Trace: eArrest.03 3003001 Attempted Defibrillation = ICD10-PCS Defibrillation 5A2204Z 3003005 Initiated Chest Compressions: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.1133883.17.3.11.57); reader may infer from this value if necessary 3003003 Attempted Ventilation: use more detailed Cardiopulmonary Resuscitation Type (2.16.840.1.1133883.17.3.11.57); 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

1. **MAY** contain zero or one [0..1] **statusCode** (CONF:10499)

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

1. **SHALL** contain zero or one [0..1] **effectiveTime** (CONF:10497)

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

1. **MAY** contain zero or one [0..1] **approachSiteCode** (CONF:10502), which **SHALL** be selected from ValueSet [*Infusion Site*](#_bookmark260)2.16.840.1.113883.17.3.11.56 **DYNAMIC** (CONF:10501)

NEMSIS Trace: eProcedures.13 Required conditionally if procedure code is insertion of an infusion device Some NEMSIS values require additional information: see Appendix for details.

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

*Required for cardiac resuscitation procedures (eArrest.16)*

* 1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Abandoned Procedure Reason*](#_bookmark50)[*Observation*](#_bookmark50)(CONF:10510)

1. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10503)

*For eArrest.07, may be used twice, for AED and for defibrillation.*

* 1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Procedure Prior Indicator*](#_bookmark158)

(CONF:10515)

1. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:10504)

*Important for airway insertion*

* 1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Procedure Number Of Attempts*](#_bookmark156)[*Observation*](#_bookmark156)(CONF:10519)

1. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it (CONF:10505)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Procedure Successful Observation*](#_bookmark159)

(CONF:10523)

1. **MAY** contain zero or more [0..\*] **entryRelationship** such that it (CONF:10506)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Procedure Complications Observation*](#_bookmark155)

(CONF:10527)

1. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it (CONF:10507)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Procedure Patient Response Observation*](#_bookmark157)

(CONF:10531)

1. **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.*

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

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

* + 1. **SHALL** contain exactly one [1..1] **code** (CONF:10537), which **SHALL** be selected from ValueSet

[*ProviderRole*](#_bookmark290)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*

* 1. contain zero or one [0..1] **assignedEntity**, where its type is CDA Assigned Entity

1. **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*

* 1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Airway Confirmation Observation*](#_bookmark57)

(CONF:10540)

1. **MAY** contain zero or one [0..1] **entryRelationship** such that it (CONF:11089)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Reason Procedure Not Attempted*](#_bookmark165)[*Observation*](#_bookmark165)(CONF:11088)
2. **MAY** contain zero or more [0..\*] **participant** such that it (CONF:11387)
   1. **SHALL** contain exactly one [1..1] **participantRole** such that it (CONF:10548)
      1. **SHALL** contain exactly one [1..1] **playingDevice** such that it (CONF:10549)
         1. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet

[*AirwayDeviceType*](#_bookmark209)2.16.840.1.113883.17.3.11.61 **DYNAMIC** (CONF:10550)

*NEMSIS Trace: eAirway.03*

**Procedure example**

<procedure classCode="PROC" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.181"

extension="2022-01-01" />

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<code code="09HN7BZ" displayName="Medical and Surgical/ Ear, Nose, and Sinus/ Insertion/ Nasopharynx/ Via natural or artificial opening/ Airway/ No qualifier" codeSystem="2.16.840.1.113883.6.4" codeSystemName="ICD-10 PCS" />

<effectiveTime value="201201011602+0600" />

<performer>

<assignedEntity>

. . .

</assignedEntity>

</performer>

<entryRelationship>

. . .

</entryRelationship>

</procedure>

#### Procedure Complications Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.179]

Complications associated with a procedure performed by the EMS unit

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11526 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.179"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11259)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10528)**/@code**="67545-4" *Procedure complication NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10529)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11622), which **SHALL** be selected from ValueSet [*ProcedureComplicationType*](#_bookmark285)2.16.840.1.113883.17.3.11.58 **DYNAMIC** (CONF:10530)

NEMSIS Trace: eProcedures.07

**Procedure Complications Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.179"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67545-4" displayName="Procedure complication" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA137-2" displayName="None" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

</observation>

#### Procedure Number Of Attempts Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.132]

How many times the EMS unit attempted a procedure

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11524 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.132"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11257)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10520)**/@code**="67543-9" *Procedure attempts [#] NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10521)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:10522)

NEMSIS Trace: eProcedures.05

**Procedure Number Of Attempts Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.132"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67543-9" displayName="Procedure attempts [#] NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="INT" value="1" />

</observation>

#### Procedure Patient Response Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.135]

How a patient responded to a procedure

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11527 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.135"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11260)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10532)**/@code**="67546-2" *Response to procedure NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10533)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10534), which **SHALL** be selected from ValueSet [*ChangeInPatientStatus*](#_bookmark222)2.16.840.1.113883.17.3.11.78 **DYNAMIC** (CONF:10535)

NEMSIS Trace: eProcedures.08

**Procedure Patient Response Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.135"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67546-2" displayName="Response to procedure NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA65-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Improved" />

</observation>

#### Procedure Prior Indicator

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.131]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11523 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.131"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11256)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10516)**/@code**="67542-1" *Procedure performed prior to this units EMS care NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10517)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10518)

NEMSIS 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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.131"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67542-1" displayName="Procedure performed prior

to this units EMS care NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="BL" value="false" />

</observation>

#### Procedure Successful Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.133]

Indication of whether a procedure was successful

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11525 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.133"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11258)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10524)**/@code**="67544-7" *Procedure successful NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10525)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:10526) NEMSIS Trace: eProcedures.06

**Procedure Successful Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.133"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67544-7" displayName="Procedure successful NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="BL" value="true" />

</observation>

#### Protocol Age Category

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.149] Age range for which a protocol is appropriate

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11539 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.149"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11282)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10723)**/@code**="67538-9" *Protocol age category NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10724)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10725), which **SHALL** be selected from ValueSet [*ProtocolAgeCategory*](#_bookmark287)2.16.840.1.113883.17.3.11.86 **DYNAMIC** (CONF:10726)

NEMSIS Trace: eProtocols.02

**Protocol Age Category example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.149"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67538-9" displayName="Protocol age category NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17572-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Adult only" />

</observation>

#### Protocol Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.93]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11487 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.93"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11209)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10719)**/@code**="67537-1" *Protocol used NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10718)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10720), which **SHALL** be selected from ValueSet [*Protocol*](#_bookmark286)2.16.840.1.113883.17.3.11.73 **DYNAMIC** (CONF:10721)

NEMSIS Trace: eProtocols.01

1. contain zero or one [0..1] **entryRelationship** such that it
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Protocol Age Category*](#_bookmark160)(CONF:11073)

**Protocol Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.93"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67537-1" displayName="Protocol used NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17500-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac arrest-post resuscitation

care" />

</observation>

#### Provider Primary Impression

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.65]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11458 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.65"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11172)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10796)**/@code**="67492-9" *Primary problem NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10797)

1. **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)

NEMSIS Trace: eSituation.11

**Provider Primary Impression example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.65"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67492-9" displayName="Primary problem NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="S29.9" displayName="Unspecified injury of thorax" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" />

</observation>

#### Provider Secondary Impressions

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.68]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11461 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.68"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11175)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10811)**/@code**="69542-9" *Secondary problem NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10812)

1. **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)

NEMSIS Trace: eSituation.12

**Provider Secondary Impressions example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.68"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69542-9" displayName="Secondary problem NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="S29.9" displayName="Unspecified injury of thorax" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" />

</observation>

#### Reason For Choosing Destination Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.35]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11426 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.35"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11140)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10684)**/@code**="67552-0" *Reason for choosing destination NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10683)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10685), which **SHALL** be selected from ValueSet [*DestinationChoiceReason*](#_bookmark229)2.16.840.1.113883.17.3.11.68 **DYNAMIC** (CONF:10686)

NEMSIS Trace: eDisposition.20

**Reason For Choosing Destination Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.35"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67552-0" displayName="Reason for choosing destination NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17182-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Closest facility" />

</observation>

#### Reason Procedure Not Attempted Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.137]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11529 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.137"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11262)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11673)**/@code**="72112-6" *Reason resuscitation not attempted NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11263)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11264), which **SHALL** be selected from ValueSet [*Reason Procedure not Performed Superset*](#_bookmark294)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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.137"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="72112-6" displayName="Reason resuscitation not attempted NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA18925-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Denied by order" />

</observation>

#### Respiratory Rate

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.146]

Patient's rate of respiration

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11536 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.146"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11276)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11674)**/@code**="9279-1" *Respiratory rate* (CodeSystem:

2.16.840.1.113883.6.1 LOINC) (CONF:10287)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11277) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10288)

NEMSIS Trace: eVitals.14 UCUM units SHOULD be "/min".

**Respiratory Rate example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.146"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="9279-1" displayName="Respiratory rate" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="PQ" value="12" unit="/min" />

</observation>

#### Response Beginning Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.171]

Odometer reading for the EMS vehicle when dispatched

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11561 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.171"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11314)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10631)**/@code**="67484-6" *Counter or odometer reading NEMSIS --beginning of call* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10632)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10633) NEMSIS Trace: eResponse.19 UCUM units SHOULD be "[mi\_i]"

**Response Beginning Odometer Reading example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.171"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67484-6" displayName="Counter or odometer reading NEMSIS --beginning of call" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="PQ" value="12000" unit="mi\_i" />

</observation>

#### Response Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.154]

Causes of delay to the response process

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11544 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.154"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11287)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10595)**/@code**="67557-9" *Response delay NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10594)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10597), which **SHALL** be selected from ValueSet [*ResponseDelayType*](#_bookmark297)2.16.840.1.113883.17.3.11.51 **DYNAMIC** (CONF:10596)

NEMSIS Trace: eResponse.09

**Response Delay example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.154"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67557-9" displayName="Response delay NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA18081-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="None/no delay" />

</observation>

#### Response Destination Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.173]

Odometer reading for the EMS vehicle at patient destination

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11563 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.173"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11316)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10639)**/@code**="67486-1" *Counter or odometer reading NEMSIS --patient destination* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10640)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10641) NEMSIS Trace: eResponse.21 UCUM units SHOULD be "[mi\_i]"

**Response Destination Odometer Reading example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.173"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67486-1" displayName="Counter or odometer reading NEMSIS --patient destination" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="PQ" value="12050" unit="mi\_i" />

</observation>

#### Response Ending Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.174]

Odometer reading for the EMS vehicle when call is complete

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11418 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.174"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11317)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10643)**/@code**="67487-9" *Counter or odometer reading NEMSIS --end of call* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10644)
2. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.174"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67487-9" displayName="Counter or odometer reading NEMSIS -- end of call" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="PQ" value="12055" unit="mi\_i" />

</observation>

#### Response Mode Qualifier

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.191]

Characteristics of the response mode

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11569 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.191"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem:

2.16.840.1.113883.5.6 HL7ActClass) (CONF:11371)

1. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11374)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11372)**/@code**="77157-6" *Response mode descriptors*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11373)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11715), which **SHALL** be selected from ValueSet [*ResponseModeQualifier*](#_bookmark298)2.16.840.1.113883.17.3.11.106 **DYNAMIC** (CONF:11375)

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

**Response Mode Qualifier example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.191"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77157-6" displayName="Response mode descriptors" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA22801-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Speed-Enhanced per Local Policy"

<value xsi:type="CD" code="LA22803-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Lights and Sirens" />

</observation>

#### Response Mode To Scene

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.182]

Indication of whether the response was emergent or non-emergent

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11495 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.182"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11211)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10647)**/@code**="67482-0" *Response mode to scene NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10648)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10650), which **SHALL** be selected from ValueSet [*TransportationMode*](#_bookmark313)2.16.840.1.113883.17.3.11.66 **DYNAMIC** (CONF:10649)

NEMSIS Trace: eResponse.23

1. **SHALL** contain [1..1] **entryRelationship** such that it (CONF:11343)
   1. Conforms to [*Response Mode Qualifier*](#_bookmark171)(templateId:

2.16.840.1.1133883.17.3.10.1.191:2022-01-01)

**Response Mode To Scene example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.182"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67482-0" displayName="Response mode to scene NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17179-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Non-emergent upgraded to emergent" />

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entryRelationship>

</observation>

#### Response Odometer Reading Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.97]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11494 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.97"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **MAY** contain zero or one [0..1] **component** such that it (CONF:10626)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Response Beginning Odometer Reading*](#_bookmark167)

(CONF:10630)

1. **MAY** contain zero or one [0..1] **component** such that it (CONF:10627)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Response On Scene Odometer Reading*](#_bookmark174)

(CONF:10634)

1. **MAY** contain zero or one [0..1] **component** such that it (CONF:10628)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Response Destination Odometer Reading*](#_bookmark169)

(CONF:10638)

1. **MAY** contain zero or one [0..1] **component** such that it (CONF:10629)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Response Ending Odometer Reading*](#_bookmark170)

(CONF:10642)

**Response Odometer Reading Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.17.3.10.1.97"/>

<id root="2.16.840.1.113883.19.4" extension="243446586"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

#### Response On Scene Odometer Reading

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.172]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11562 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.172"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11315)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10635)**/@code**="67485-3" *Counter or odometer reading NEMSIS --patient arrival* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10636)
2. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.172"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67485-3" displayName="Counter or odometer reading NEMSIS -- patient arrival" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" /

>

<value xsi:type="PQ" value="12000" unit="mi\_i" />

#### Return Of Spontaneous Circulation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.128]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11520 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.128"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11252)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11672)**/@code**="88670-5" *Return of spontaneous circulation* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10184)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11253), which **SHALL** be selected from ValueSet [*ReturnOfSpontaneousCirculation*](#_bookmark300)2.16.840.1.113883.17.3.11.15 **DYNAMIC** (CONF:10185)

NEMSIS Trace: eArrest.12

**Return Of Spontaneous Circulation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.128"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="88670-5" displayName="Return of spontaneous circulation" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17076-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Yes, at arrival at the ED" />

#### Scene Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.155]

Causes of delay at the event scene

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11545 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.155"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11288)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10600)**/@code**="67558-7" *Scene delay NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10599)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10602), which **SHALL** be selected from ValueSet [*SceneDelayType*](#_bookmark304)2.16.840.1.113883.17.3.11.52 **DYNAMIC** (CONF:10601)

NEMSIS Trace: eResponse.10

**Scene Delay example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.155"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67558-7" displayName="Scene delay NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17591-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Traffic" />

<value xsi:type="CD" code="LA17596-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Safety-crew/staging" />

#### Scene Patient Count

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.86]

How many patients were at the scene

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11480 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.86"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11199)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10750)**/@code**="67489-5" *Total patients at the scene NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10749)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10751), which **SHALL** be selected from ValueSet [*PatientsAtScene*](#_bookmark282)2.16.840.1.113883.17.3.11.110 **DYNAMIC**

NEMSIS Trace: eScene.06

**Scene Patient Count example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.86"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67489-5" displayName="Total patients at the scene NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="ST" value="Single" />

#### Skin Assessment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.180]

Qualitative assessment of condition of patient's skin

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11570 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.180"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11223)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10368)**/@code**="67524-9" *Physical findings of Skin NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10369)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11386) NEMSIS Trace: eExam.03
3. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10370), which **SHALL** be selected

from ValueSet [*SkinAssessment*](#_bookmark306)2.16.840.1.113883.17.3.11.25 **DYNAMIC** (CONF:10371) NEMSIS Trace: eExam.04

**Skin Assessment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.180"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67524-9" displayName="Physical findings of Skin NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA6626-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Normal" />

#### Stroke Score

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.163]

Result of a stroke scale instrument

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11553 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.163"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11297)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10308)**/@code**="67520-7" *Stroke scale overall interpretation NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10307)
2. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:11298) NEMSIS Trace: eVitals.01
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10310), which **SHALL** be selected

from ValueSet [*Stroke Scale Interpretation*](#_bookmark308)2.16.840.1.113883.17.3.11.93 **DYNAMIC**

(CONF:10309)

NEMSIS Trace: eVitals.29

1. **SHALL** contain exactly one [1..1] **methodCode** (CONF:10312), which **SHALL** be selected from ValueSet

[*StrokeScale*](#_bookmark307)2.16.840.1.113883.17.3.11.88 **DYNAMIC** (CONF:10311)

NEMSIS Trace: eVitals.30

**Stroke Score example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.163"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67520-7" displayName="Stroke scale overall interpretation NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA6577-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Negative" />

<methodCode code="LA3774-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Massachusetts Stroke Scale (MSS)" />

#### Systolic Blood Pressure

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.23.1]

Measurement of the patient's systolic blood pressure

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11419 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.23.1"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11271)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11724)**/@code**="8480-6" *Systolic blood pressure*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10280)

1. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:7304) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:10281) NEMSIS Trace: eVitals.06 UCUM units SHOULD be "mm[Hg]".
3. **MAY** contain zero or one [0..1] **methodCode** (CONF:11344), which **SHALL** be selected from ValueSet

[*BloodPressureMeasurementMethod*](#_bookmark215)2.16.840.1.113883.17.3.11.107 **DYNAMIC**

(CONF:11345)

NEMSIS Trace: eVitals.08 (method of blood pressure measurement)

**Systolic Blood Pressure example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.23"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="8480-6" displayName="Systolic blood pressure" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="PQ" value="130" unit="mm[Hg]" />

#### Thrombolytic Contraindications

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.82]

Indicator of contraindications to thrombolytic use

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11477 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.82"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11195)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10431)**/@code**="67523-1" *Contraindication for thrombolytic use NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10432)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11722), which **SHALL** be selected from ValueSet [*ExistenceOfContraindicationsToThrombolyticUse*](#_bookmark241)2.16.840.1.113883.17.3.11.41 **DYNAMIC** (CONF:10433)

NEMSIS Trace: eVitals.31

**Thrombolytic Contraindications example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.82"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67523-1" displayName="Contraindication for thrombolytic use NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17114-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Definite contraindications to thrombolytic use" />

#### Transport Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.156]

Causes of delay to the transport process

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11546 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.156"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11289)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10605)**/@code**="67559-5" *Transport delay NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10604)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10607), which **SHALL** be selected from ValueSet [*TransportDelayType*](#_bookmark309)2.16.840.1.113883.17.3.11.53 **DYNAMIC** (CONF:10606)

NEMSIS Trace: eResponse.11

**Transport Delay example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.156"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67559-5" displayName="Transport delay NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17594-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Weather" />

#### Transport Disposition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.199]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11592 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.199"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11702)**/@code**="100040-5" *Transport Disposition*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11593)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11595), which **SHALL** be selected from ValueSet [*TransportDisposition*](#_bookmark310)2.16.840.1.113883.17.3.11.115 **DYNAMIC** (CONF:11594)

NEMSIS Trace: eDisposition.30

**Transport Disposition example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.199"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="100040-5" displayName="Transport Disposition" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA29248-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient Refused Transport" />

#### Transport Method Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.34]

Vehicle or device used to transport patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11425 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.34"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11139)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10679)**/@code**="67549-6" *Transport method NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10678)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10680), which **SHALL** be selected from ValueSet [*TransportMethod*](#_bookmark311)2.16.840.1.113883.17.3.11.65 **DYNAMIC** (CONF:10681)

NEMSIS Trace: eDisposition.16

**Transport Method Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.34"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67549-6" displayName="Transport method NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17168-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Ground-ambulance" />

#### Transport Mode Observation

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.33]

Indication of whether the transport was emergent or non-emergent

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11424 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.33"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11138)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10674)**/@code**="67550-4" *Transport mode from scene NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10673)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:10675), which **SHALL** be selected from ValueSet [*TransportationMode*](#_bookmark313)2.16.840.1.113883.17.3.11.66 **DYNAMIC** (CONF:10676)

NEMSIS Trace: eDisposition.17 (disposition transport mode)

1. **SHALL** contain exactly one [1..1] **entryRelationship** such that it (CONF:11379)
   1. contain exactly one [1..1] **@typeCode**="COMP"
   2. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Transport Mode Qualifier*](#_bookmark186)

(CONF:11339)

**Transport Mode Observation example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.33"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67550-4" displayName="Transport mode from scene NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17177-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Emergent (immediate response)" />

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

. . .

</observation>

</entryRelationship>

#### Transport Mode Qualifier

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.193]

Characteristics of the transport mode

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11566 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.193"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" *Observation* (CodeSystem:

2.16.840.1.113883.5.6 HL7ActClass) (CONF:11353)

1. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11378)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11354)**/@code**="77153-5" *Transport Mode Descriptors*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11355)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11600), which **SHALL** be selected from ValueSet [*TransportModeQualifier*](#_bookmark312)2.16.840.1.113883.17.3.11.102 **DYNAMIC** (CONF:11356)

NEMSIS Trace: eDisposition.18 (additional transport mode descriptors)

**Transport Mode Qualifier example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.193"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="77153-5" displayName="Transport Mode Descriptors" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA22803-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Lights and Sirens" />

#### Trauma Triage Criteria (Steps 1 and 2)

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.52]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11444 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.52"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11157)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11651)**/@code**="67495-2" *CDC field triage criteria NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10111)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11616), which **SHALL** be selected from ValueSet [*TraumaCenterCriteria*](#_bookmark314)2.16.840.1.113883.17.3.11.3 **DYNAMIC** (CONF:10112)

NEMSIS Trace: eInjury.03

**Trauma Triage Criteria (Steps 1 and 2) example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.52"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67495-2" displayName="CDC field triage criteria NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17343-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Open or depressed skull fracture" />

#### Trauma Triage Criteria (Steps 3 and 4)

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.53]

Factors predictive of need for trauma center care

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11445 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.53"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11158)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11383)**/@code**="67496-0" *Other injury risk factors NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10114)
2. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11382), which **SHALL** be selected from ValueSet [*InjuryRiskFactor*](#_bookmark262)2.16.840.1.113883.17.3.11.4 **DYNAMIC** (CONF:10115)

NEMSIS Trace: eInjury.04

**Trauma Triage Criteria (Steps 3 and 4) example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.53"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67496-0" displayName="Other injury risk factors NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17350-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Motorcycle crash > 20 mph" />

#### Turnaround Delay

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.157]

Causes of delay to the unit turnaround process

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11547 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.157"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11290)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10610)**/@code**="67560-3" *Turn-around delay NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10609)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:10612), which **SHALL** be selected from ValueSet [*TurnAroundDelayType*](#_bookmark315)2.16.840.1.113883.17.3.11.54 **DYNAMIC** (CONF:10611)

NEMSIS Trace: eResponse.12

**Turnaround Delay example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.157"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67560-3" displayName="Turn-around delay NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17590-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Staff delay" />

#### Unit At Patient Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.42]

Time the unit arrived at the patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11434 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.42"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11147)

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

**Unit At Patient Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.42"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69474-5" displayName="Responding unit arrived at the patient's side [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Unit Back In Service Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.45]

Time the unit is back in service

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11437 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.45"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11150)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10863)**/@code**="69477-8" *Unit was back in service and available for response [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10862)
2. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.45"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69477-8" displayName="Unit was back in service and available for response [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Unit Disposition

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.196]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11578 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.196"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11580)**/@code**="100037-1" *Patient contact disposition*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:11579)

1. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11582), which **SHALL** be selected from ValueSet [*Unit Disposition*](#_bookmark316)2.16.840.1.113883.17.3.11.112 **DYNAMIC** (CONF:11581)

NEMSIS trace: eDisposition.27

**Unit Disposition example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.196"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="100037-1" displayName="Patient contact disposition" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA33303-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient Contact Made" />

#### Unit En Route Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.40]

Time unit begins moving toward the patient

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11432 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.40"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11145)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10843)**/@code**="69472-9" *Unit responded [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10842)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10844) NEMSIS Trace: eTimes.05

**Unit En Route Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.40"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69472-9" displayName="Unit responded [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Unit Left Scene Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.43]

Time the unit left the incident scene

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11435 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.43"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11148)

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

**Unit Left Scene Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.43"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69475-2" displayName="Responding unit left the scene with a patient [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Unit Notified Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.39]

Time the unit was dispatched

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11431 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.39"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11144)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10839)**/@code**="69471-1" *Responding unit was notified by dispatch [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10838)
2. **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="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.39"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69471-1" displayName="Responding unit was notified by dispatch [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Unit On Scene Time

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.41]

Time the unit arrived at the incident scene

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11433 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.41"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11146)

1. **SHALL** contain exactly one [1..1] **code** (CONF:10847)**/@code**="69473-7" *Responding unit arrived on the scene [Date and time] Vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10846)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="TS" (CONF:10848) NEMSIS Trace: eTimes.06

**Unit On Scene Time example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.41"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="69473-7" displayName="Responding unit arrived on the scene [Date and time] Vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="TS" value="201201011450+0600" />

#### Vehicle Impact Area

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.54]

Area of vehicle struck in a vehicle collision

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11446 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.54"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11159)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11652)**/@code**="67497-8" *Location of impact on the vehicle NEMSIS* (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10117)
2. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:11617), which **SHALL** be selected from ValueSet [*VehicleImpactArea*](#_bookmark318)2.16.840.1.113883.17.3.11.5 **DYNAMIC** (CONF:10118)

NEMSIS Trace: eInjury.05

**Vehicle Impact Area example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.54"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67497-8" displayName="Location of impact on the vehicle NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA6114-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="3" />

#### Vehicle Occupant Safety Equipment

[Observation: templateId 2.16.840.1.1133883.17.3.10.1.56]

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

1. **SHALL** contain exactly one [1..1] **templateId** ( CONF:11448 ) such that it
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.56"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" *Event* (CodeSystem:

2.16.840.1.113883.5.1001 HL7ActMood) (CONF:11161)

1. **SHALL** contain exactly one [1..1] **code** (CONF:11654)**/@code**="67499-4" *Safety equipment NEMSIS*

(CodeSystem: 2.16.840.1.113883.6.1 LOINC) (CONF:10123)

1. **SHALL** contain at least one [1..\*] **value** with **@xsi:type**="CD" (CONF:11619), which **SHALL** be selected from ValueSet [*SafetyEquipmentType*](#_bookmark303)2.16.840.1.113883.17.3.11.7 **DYNAMIC** (CONF:10124)

NEMSIS Trace: eInjury.07

**Vehicle Occupant Safety Equipment example**

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.56"

extension="2022-01-01" />

<id root="2.16.840.1.113883.19.4" extension="477978662" />

<code code="67499-4" displayName="Safety equipment NEMSIS" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<value xsi:type="CD" code="LA17379-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Lap belt with shoulder belt" />

#### Vital Signs Organizer

[Organizer: templateId 2.16.840.1.1133883.17.3.10.1.28]

A collection of vital signs observations For any observation within the organizer, if the NEMSIS value is "Refused," the value SHALL be "NI;" the string "Refused" MAY be recorded in Observation.text. Note that NEMSIS 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
   1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.1133883.17.3.10.1.28"
   2. **SHALL** contain exactly one [1..1] **@extension**="2022-01-01"
2. **SHALL** contain exactly one [1..1] **code** (CONF:11338)**/@code**="46680005" *Vital signs* (CodeSystem:

2.16.840.1.113883.6.96 SNOMED CT) (CONF:11337)

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

1. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:10257) NEMSIS Trace: eVitals.01
2. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11078)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Systolic Blood Pressure*](#_bookmark180)(CONF:11077)
3. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11084)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Respiratory Rate*](#_bookmark166)(CONF:11083)
4. **SHOULD** contain zero or one [0..1] **component** such that it (CONF:11086)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Body Temperature*](#_bookmark63)(CONF:11085)
5. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11090)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Oxygen Saturation*](#_bookmark139)(CONF:11087)
6. **MAY** contain zero or one [0..1] **component** such that it (CONF:11704)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Diastolic Blood Pressure*](#_bookmark85)(CONF:11642)
7. **SHALL** contain exactly one [1..1] **component** such that it (CONF:11705)
   1. **SHALL** contain exactly one [1..1] **observation**, where its type is [*Prior Aid Vitals*](#_bookmark153)(CONF:11643)
8. **MAY** contain zero or one [0..1] **component** such that it (CONF:11706)
   1. **SHALL** contain exactly one [1..1] **organizer**, where its type is [*Additional Vital Signs Organizer*](#_bookmark52)

(CONF:11707)

**Vital Signs Organizer example**

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.28"/>

<templateId root="2.16.840.1.113883.10.20.22.4.26"/>

<id root="2.16.840.1.113883.19.4" extension="247546586"/>

<code code="46680005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="Vital signs"/>

<statusCode code="completed"/>

<effectiveTime value="201201011602+0600"/>

<component>

. . .

</component>

</organizer>

**Chapter**

**5**

## VALUE SETS

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

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* [Resuscitation Discontinue](#Resuscitation_Discontinue_Reason) [Reason](#_bookmark299)
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* [Safety Equipment Type](#Safety_Equipment_Type)
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* [Skin Assessment](#Skin_Assessment)
* [Stroke Scale](#Stroke_Scale)
* [Stroke Scale Interpretation](#Stroke_Scale_Interpretation)
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* [Transport Disposition](#Transport_Disposition)
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* [Vehicle Impact Area](#Vehicle_Impact_Area)
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##### 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 |
| 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 |

##### 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 |

##### 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 |
| LA32909-6 | 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 |

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| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA17323-9 | LOINC | Alcohol containers/paraphernalia at scene |
| LA17324-7 | LOINC | Drug paraphernalia at scene |
| LA17325-4 | LOINC | Patient admits to alcohol use |
| LA17326-2 | LOINC | Patient admits to drug use |
| LA17327-0 | LOINC | Positive level known from law enforcement or hospital record |
| LA32962-5 | 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 |
| 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 |
| 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 |

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

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| --- | --- | --- |
| **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 |
| LA32960-9 | LOINC | Drug Use, Suspected |
| LA32961-7 | LOINC | Alcohol Use, Suspected |

##### Blood Pressure Measurement Method

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

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| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA24013-7 | LOINC | Cuff-automated |
| LA24012-9 | LOINC | Cuff-manual auscultated |
| LA25780-0 | LOINC | Arterial Line |
| LA25782-6 | LOINC | Cuff-Manual Palpated Only |
| LA19771-7 | LOINC | Doppler |
| LA25783-4 | LOINC | Venous Line |

##### Cardiac Arrest Cause

|  |  |
| --- | --- |
| Value Set | CardiacArrestCause - 2.16.840.1.113883.17.3.11.10 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| 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 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Outcome of an EMS cardiac arrest event |

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

##### Cardiac Arrest Timing

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

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA17054-0 | LOINC | Yes, Prior to Any EMS Arrival (includes Transport EMS and Medical First Responders) |
| LA17055-7 | LOINC | Yes, After Any EMS Arrival (includes Transport EMS and Medical First Responders) |

##### Cardiac Arrest Witness Role

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| --- | --- |
| 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 |

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| --- | --- | --- |
| **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 |
| 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 |
| LA32915-3 | LOINC | Non-STEMI Septal Ischemia |
| LA32916-1 | 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 |

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| --- | --- | --- |
| **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 |
| LA17753-7 | LOINC | Compressions-intermittent with ventilation |
| LA17754-5 | LOINC | Compressions-other device |
| LA17755-2 | LOINC | Ventilation-bag valve mask |
| LA17756-0 | LOINC | Ventilation-impedance threshold device |
| LA17757-8 | LOINC | Ventilation-mouth to mouth |
| LA17758-6 | LOINC | Ventilation-pocket mask |
| LA32912-0 | LOINC | Ventilation-with OPA/NPA |
| LA32913-8 | LOINC | Ventilation-Advanced Airway Device |
| LA32914-6 | LOINC | Ventilation-Passive Ventilation with Oxygen |
| LA32911-2 | 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 System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA17208-2 | LOINC | Bleeding Controlled |
| LA18236-2 | LOINC | Implanted Device |
| LA7452-1 | LOINC | Laceration |
| LA6626-1 | LOINC | Normal |
| LA7423-2 | LOINC | Contusion |
| LA18225-5 | LOINC | Deformity |

|  |  |  |
| --- | --- | --- |
| LA23810-7 | LOINC | Tenderness-General |
| LA17229-8 | LOINC | Crush Injury |
| LA33345-2 | LOINC | Burn-White/Waxy |
| LA33353-6 | LOINC | Burn-Redness |
| LA33346-0 | LOINC | Burn-Charring |
| LA33342-9 | LOINC | Flail Segment |
| LA17209-0 | LOINC | Bleeding Uncontrolled |
| LA17222-3 | LOINC | Accessory Muscles Used with Breathing |
| LA18220-6 | LOINC | Avulsion |
| LA7410-9 | LOINC | Abrasion |
| LA7460-4 | LOINC | Pain |
| LA33332-0 | LOINC | Pain with Inspiration/Expiration |
| LA17214-0 | LOINC | Puncture/Stab Wound |
| LA18231-3 | LOINC | Retraction |
| LA17709-9 | LOINC | Tenderness |
| LA17212-4 | LOINC | Gunshot Wound |
| LA22440-4 | LOINC | Swelling |
| LA33338-7 | LOINC | Burn-Blistering |

##### Chest Finding Location

|  |  |
| --- | --- |
| Value Set | ChestFindingLocation - 2.16.840.1.113883.17.3.11.119 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA33302-3 | LOINC | General - Posterior |
| LA33301-5 | LOINC | Left - Anterior |
| LA33300-7 | LOINC | Left - Posterior |
| LA33299-1 | LOINC | Right - Anterior |
| LA33297-5 | LOINC | General - Anterior |
| LA33296-7 | LOINC | Left - Side |
| LA33298-3 | LOINC | Right - Side |
| LA33295-9 | LOINC | 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 |

##### Crew Disposition

|  |  |
| --- | --- |
| Value Set | CrewDisposition - 2.16.840.1.113883.17.3.11.120 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA33320-5 | LOINC | Back in Service, Care/Support Services Refused |
| LA33319-7 | LOINC | Back in Service, No Care/Support Services Required |
| LA33318-9 | LOINC | Incident Support Services Provided (Including Standby) |
| LA33317-1 | LOINC | Assumed Primary Care from Another EMS Crew |
| LA33316-3 | LOINC | Provided Care Supporting Primary EMS Crew |
| LA33315-5 | LOINC | Initiated Primary Care and Transferred to Another EMS Crew |
| LA33314-8 | LOINC | 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) |
| 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 |
| LA32922-9 | 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 |
| LA32937-7 | 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 |
| LA32923-7 | LOINC | Mental Health Facility |
| LA32924-5 | LOINC | Diagnostic Services |

|  |  |  |
| --- | --- | --- |
| LA21437-1 | LOINC | Assisted Living Facility |
| LA32926-0 | LOINC | Dialysis Center |
| LA32927-8 | LOINC | Drug and/or Alcohol Rehabilitation Facility |
| LA27338-5 | LOINC | Skilled Nursing Facility |
| LA32929-4 | LOINC | Physical Rehabilitation Facility |
| LA32930-2 | LOINC | Other Recurring Care Center |
| LA27-8 | LOINC | Nursing Home |

##### Destination Ward Kind

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

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

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| LA22828-0 | LOINC | Hospital-radiology services - CT/PET |
| LA22829-8 | LOINC | Hospital-radiology services - x-ray |
| LA22830-6 | LOINC | Hospital-radiation |
| LA22831-4 | LOINC | Hospital-rehabilitation |
| LA22832-2 | LOINC | Hospital-SICU |
| LA24394-1 | LOINC | Hospital-Oncology |
| LA24395-8 | LOINC | Hospital-Outpatient Surgery |

##### Disaster Type

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

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| **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 |
| LA30039-4 | LOINC | Flood |
| LA32967-4 | LOINC | Land Slide |
| LA32968-2 | LOINC | Winter Storm |
| LA30042-8 | LOINC | Tornado |
| LA30040-2 | LOINC | Hurricane |
| LA30037-8 | LOINC | Earthquake |

##### Dispatch Delay Type

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| 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 |

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| **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 |
| LA32992-2 | LOINC | Communication Specialist-Assignment Error |
| LA32993-0 | LOINC | No Receiving MD, Bed, Hospital |
| LA32994-8 | 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 |

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| **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 |

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| LA17124-1 | LOINC | Carbon monoxide poisoning/hazmat/inhalation/ chemical/biological/radiological/nuclear |
| LA17125-8 | LOINC | Cardiac arrest/death |
| LA17126-6 | LOINC | Chest pain (non-traumatic) |
| LA17127-4 | LOINC | Choking |
| LA17128-2 | LOINC | Convulsions/seizure |
| LA17129-0 | LOINC | Diabetic problem |
| LA17131-6 | LOINC | Electrocution/lightning |
| LA17132-4 | LOINC | Eye problem/injury |
| LA17133-2 | LOINC | Falls |
| LA17134-0 | LOINC | Healthcare professional/admission |
| LA17135-7 | LOINC | Heart problems/AICD |
| 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 |

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| LA23800-8 | LOINC | Air medical Transport |
| LA17392-4 | LOINC | Altered Mental Status |
| LA18716-3 | LOINC | Intercept |
| LA15098-9 | LOINC | Nausea |
| LA15099-7 | 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 |

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| --- | --- | --- |
| **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 |
| LA32996-3 | LOINC | 2 Lead ECG (pads or paddles) |

##### EMD Performed

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| --- | --- |
| 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 |

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

##### EMS Level Of Service

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

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

##### EMS Medication Administration Device

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| --- | --- |
| Value Set | EMSMedicationAdministrationDevice - 2.16.840.1.113883.17.3.11.108 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Kind of device used to administer a substance to a patient |

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| **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 | LOINC | Subcutaneous port |
| 425478008 | LOINC | Blow by oxygen mask |

##### Ethnicity Group

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| --- | --- |
| 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 |

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

##### Existence Of Contraindications To Thrombolytic Use

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| --- | --- |
| 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 |

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| **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

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| --- | --- |
| 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 |

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| **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 |

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

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| --- | --- |
| 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 |

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| **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 |
| 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 |
| LA18786-6 | LOINC | Toe-5th (smallest)-right |
| LA32940-1 | LOINC | Foot-Whole Foot-Right |
| LA32939-3 | LOINC | Hand-Whole Hand-Left |
| LA32941-9 | LOINC | Arm-Whole Arm and Hand-Left |
| LA32942-7 | LOINC | Arm-Whole Arm and Hand-Right |
| LA32938-5 | LOINC | Foot-Whole Foot-Left |
| LA32943-5 | LOINC | Leg-Whole Leg-Right |
| LA32944-3 | LOINC | Leg-Whole Leg-Left |
| LA32945-0 | LOINC | Hand-Whole Hand-Right |

##### Eye Assessment Finding

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| --- | --- |
| 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 |

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| --- | --- | --- |
| **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 |

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| 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 |
| 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 > |
| LA7423-2 | LOINC | Contusion |
| LA18252-9 | LOINC | Glaucoma Present |
| LA17283-5 | LOINC | Hyphema |
| LA17214-0 | LOINC | Puncture/Stab Wound |
| LA22440-4 | LOINC | Swelling |
| LA19576-0 | LOINC | Dilated |
| LA32946-8 | 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 |

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

##### 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 |

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| **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 |
| 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 System | LOINC - 2.16.840.1.113883.6.1 |

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| --- | --- | --- |
| **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) |
| LA32920-3 | LOINC | Non-Acute/Routine |
| LA32921-1 | LOINC | 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 |

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| --- | --- | --- |
| **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 |

##### 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 |

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| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA17208-2 | LOINC | Bleeding controlled |
| LA17209-0 | LOINC | Bleeding uncontrolled |
| LA17210-8 | LOINC | Decapitation |
| LA17211-6 | LOINC | Drainage |
| LA17213-2 | LOINC | Mass/lesion |
| LA17214-0 | LOINC | Puncture/stab wound |
| LA17212-4 | LOINC | Gunshot Wound |
| LA18220-6 | LOINC | Avulsion |
| LA18221-4 | LOINC | Burn, blistering |
| LA18222-2 | LOINC | Burn, charring |
| LA18223-0 | LOINC | Burn, redness |
| LA18224-8 | LOINC | Burn, white/waxy |
| LA18225-5 | LOINC | Deformity |
| LA18226-3 | LOINC | Foreign body |
| LA6626-1 | LOINC | Normal |
| 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 |

##### 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 |

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| **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 |

##### Hospital Capability

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

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| **Code** | **Code System** | **Print Name** |
| LA22833-0 | LOINC | Behavioral health |
| LA22834-8 | LOINC | Burn center |
| LA22835-5 | LOINC | Critical access hospital |
| LA22836-3 | LOINC | Hospital - general |
| LA22837-1 | LOINC | Neonatal center |
| LA22838-9 | LOINC | Pediatric center |
| LA22842-1 | LOINC | Rehabilitation center |
| LA22843-9 | LOINC | Trauma center level 1 |
| LA22844-7 | LOINC | Trauma center level 2 |
| LA22845-4 | LOINC | Trauma center level 3 |
| LA22846-2 | LOINC | Trauma center level 4 |

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| LA22847-0 | LOINC | Trauma center level 5 |
| LA22848-8 | LOINC | Cardiac-STEMI/PCI Capable |
| LA22849-6 | LOINC | Cardiac-STEMI/PCI Capable (24/7) |
| LA22850-4 | LOINC | Cardiac-STEMI/Non-PCI Capable |
| LA32931-0 | LOINC | Stroke-Acute Stroke Ready Hospital (ASRH) |
| LA32934-4 | LOINC | Stroke-Primary Stroke Center (PSC) |
| LA32935-1 | LOINC | Stroke-Thrombectomy-Capable Stroke Center (TSC) |
| LA32936-9 | LOINC | Stroke-Comprehensive Stroke Center (CSC) |
| LA32933-6 | LOINC | Cancer Center |
| LA20786-2 | LOINC | Labor and Delivery |

##### Infusion Site

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| --- | --- |
| 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 |

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| **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 vein-left |
| LA18795-7 | LOINC | Femoral vein-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, etc.) |
| LA18814-6 | LOINC | Other peripheral access |

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| 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 |
| LA18765-0 | LOINC | Wrist-Right |
| LA18766-8 | LOINC | Wrist-Left |

##### Initial Patient Condition

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| --- | --- |
| 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 |

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| **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) |
| LA32920-3 | LOINC | Non-Acute/Routine |

##### Injury Risk Factor

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| --- | --- |
| 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 |

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| **Code** | **Code System** | **Print Name** |
| LA17348-6 | LOINC | Fall adults: > 20 ft. (one story is equal to 10 ft.) |

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| 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 |

##### Length Based Weight Class

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| --- | --- |
| 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 |

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| **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

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| Value Set | LevelOfResponsiveness - 2.16.840.1.113883.17.3.11.21 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

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| Definition | Kind of stimulation necessary to elicit a patient reaction |

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| **Code** | **Code System** | **Print Name** |
| LA17107-6 | LOINC | Painful |
| LA17108-4 | LOINC | Verbal |
| LA9340-6 | LOINC | Alert |
| LA9343-0 | LOINC | Unresponsive |

##### Lung Finding

|  |  |
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| Value Set | LungFinding - 2.16.840.1.113883.17.3.11.116 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

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| **Code** | **Code System** | **Print Name** |
| LA33360-1 | LOINC | Breath Sounds-Absent |
| LA33354-4 | LOINC | Breath Sounds-Decreased |
| LA6626-1 | LOINC | Normal |
| LA18402-0 | LOINC | Breath Sounds-Equal |
| LA33362-7 | LOINC | Breath Sounds-Normal |
| LA17232-2 | LOINC | Increased Respiratory Effort |
| LA33365-0 | LOINC | Wheezing-Inspiratory |
| LA18226-3 | LOINC | Foreign Body |
| LA7460-4 | LOINC | Pain |
| LA33356-9 | LOINC | Pain with Inspiraton/Expiration |
| LA33355-1 | LOINC | Rales |
| LA33363-5 | LOINC | Rhonchi |
| LA17612-5 | LOINC | Stridor |
| LA33364-3 | LOINC | Wheezing-Expiratory |
| LA17236-3 | LOINC | Rhonchi/Wheezing |

##### Lung Finding Location

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| Value Set | LungFindingLocation - 2.16.840.1.113883.17.3.11.117 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

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| **Code** | **Code System** | **Print Name** |
| LA4306-2 | LOINC | Right |
| LA4585-1 | LOINC | Left |

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| --- | --- | --- |
| LA25377-5 | LOINC | Bilateral |

##### Mechanism Of Injury

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| 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 |

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

##### Medication Administration Route

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| --- | --- |
| Value Set | MedicationAdministrationRoute - 2.16.840.1.113883.17.3.11.43 |
| Code System | NCI - 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 NEMSIS route codes, including modeling of orthogonal concepts (e.g., devices), is included in implementation guide text appendix. |

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| **Code** | **Code System** | **Print Name** |
| C38208 | NCI | Endotracheal |
| C38246 | NCI | Intragastric |
| C38216 | NCI | Respiratory (Inhalation) |
| C38222 | NCI | Intra-Arterial |
| C38284 | NCI | Nasal |
| C28161 | NCI | Intramuscular |
| C38255 | NCI | Intraocular |
| C38276 | FNCI | Intravenous |

|  |  |  |
| --- | --- | --- |
| C38285 | NCI | Nasogastric |
| C38287 | NCI | Ophthamlic |
| C38288 | NCI | Oral |
| C38290 | NCI | Other |
| C38192 | NCI | Auricular (Otic) |
| C38295 | NCI | Rectal |
| C38299 | NCI | Subcutaneous |
| C38300 | NCI | Sublingual |
| C38304 | NCI | Topical |
| C38305 | NCI | Transdermal |
| C38271 | NCI | Urethral |
| C38193 | NCI | Buccal |
| C38238 | NCI | Intradermal |
| C64987 | NCI | Intraosseous |
| C38250 | NCI | Intralesional |
| C38676 | NCI | Percutaneous |

##### Medication Administration Site

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

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| **Code** | **Code System** | **Print Name** |
| 280361007 | SNOMED CT | Tracheostomy stoma |

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| 15562006 | SNOMED CT | Structure of respiratory region of nose |

##### Medication Authorization Type

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| --- | --- |
| 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 |

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

##### Medication Complication

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

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

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| 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 adminstering an otherwise indicated medication |

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| **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 |

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| **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 |

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| LA7438-0 | LOINC | Hallucinations |
| LA9343-0 | LOINC | Unresponsive |
| LA6150-2 | LOINC | Agitation |
| LA23818-0 | LOINC | Somnolent |
| LA17666-1 | LOINC | Stupor |
| LA17313-0 | LOINC | Psychologically Impaired |
| LA32948-4 | LOINC | Pharmacologically Sedated |
| LA17678-6 | LOINC | State of emotional shock and stress, unspecified |
| LA32951-8 | LOINC | Altered mental status, unspecified |
| LA17307-2 | LOINC | Developmentally Impaired |
| LA32953-4 | LOINC | Pharmacologically Paralyzed |
| LA32950-0 | LOINC | Slowness and poor responsiveness |
| LA32956-7 | LOINC | Strange and inexplicable behavior |
| LA17317-1 | LOINC | Uncooperative |
| LA32955-9 | LOINC | Unspecified coma |
| LA17668-7 | 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 |

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

##### Neck Assessment Finding

|  |  |
| --- | --- |
| Value Set | NeckAssessmentFinding - 2.16.840.1.113883.17.3.11.28 |

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

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| **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 |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |
| LA17229-8 | LOINC | Crush Injury |
| LA22440-4 | LOINC | Swelling |
| LA7423-2 | LOINC | Contusion |
| LA17709-9 | LOINC | Tenderness |
| 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 |
| LA23822-2 | LOINC | Arm Drift-Left |
| LA23823-0 | LOINC | Arm Drift-Right |
| LA32958-3 | LOINC | Status Seizure |
| LA32959-1 | 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 NEMSIS Suggested Lists at https://nemsis.org/technical-resources/version-3/version-3-resources/. |

##### 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 System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA33311-4 | LOINC | Patient Evaluated, No Care Required |
| LA33312-2 | LOINC | Patient Refused Evaluation/Care |
| LA33310-6 | LOINC | Patient Evaluated and Refused Care |
| LA33309-8 | LOINC | Patient Evaluated and Care Provided |
| LA33313-0 | LOINC | Patient Support Services Provided |

##### Patients At Scene

|  |  |
| --- | --- |
| Value Set | PatientsAtScene - 2.16.840.1.113883.17.3.11.110 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA17717-2 | LOINC | Single |

|  |  |  |
| --- | --- | --- |
| LA15382-7 | LOINC | Multiple |
| LA137-2 | LOINC | None |

##### 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 |

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| **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 |
| LA7410-9 | LOINC | Abrasion |
| LA7452-1 | LOINC | Laceration |
| LA7460-4 | LOINC | Pain |

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| LA17229-8 | LOINC | Crush Injury |
| LA7423-2 | LOINC | Contusion |
| LA14123-6 | LOINC | Unstable |

##### Pregnancy

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| 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 |

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| **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 |

##### Procedure Complication Type

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| 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 |

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| **Code** | **Code System** | **Print Name** |
| LA137-2 | LOINC | None |
| LA15098-9 | LOINC | Nausea |
| LA15099-7 | LOINC | Vomiting |
| LA15424-7 | LOINC | Diarrhea |
| LA17059-9 | LOINC | Other (not listed) |
| LA17392-4 | LOINC | Altered mental status |
| LA17393-2 | LOINC | Apnea |
| LA17394-0 | LOINC | Bradycardia |
| LA17396-5 | LOINC | Hypoxia |
| LA20641-9 | LOINC | Itching |
| LA17489-8 | LOINC | Esophageal intubation-immediately |

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| 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

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

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| **Code** | **Code System** | **Print Name** |
| LA17398-1 | LOINC | Airway |
| LA17491-4 | LOINC | Airway-failed |
| LA17492-2 | LOINC | Airway-obstruction/foreign body |
| LA17494-8 | LOINC | Airway-Rapid Sequence Induction (RSI-Paralytic) |
| LA17495-5 | LOINC | Airway-sedation assisted (nonparalytic) |
| LA17496-3 | LOINC | Cardiac arrest- asystole |
| LA17497-1 | LOINC | Cardiac arrest- pulseless electrical activity |
| LA17498-9 | LOINC | Cardiac arrest- ventricular fibrillation/pulseless ventricular tachycardia |
| LA17499-7 | LOINC | Cardiac arrest-hypothermia-therapeutic |
| LA17500-2 | LOINC | Cardiac arrest-post resuscitation care |
| LA17501-0 | LOINC | Environmental-altitude sickness |
| LA17502-8 | LOINC | Environmental-cold exposure |
| LA17503-6 | LOINC | Environmental-frostbite/cold Injury |
| LA17504-4 | LOINC | Environmental-heat exposure/exhaustion |

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| 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 |
| 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 |

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| 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) |
| 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 |

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| LA18269-3 | LOINC | General-cardiac arrest |
| LA46-8 | LOINC | Other |
| LA23828-9 | LOINC | Injury-Conducted Electrical Weapon (e.g., Taser) |
| LA23829-7 | LOINC | Injury-Facial Trauma |
| LA23830-5 | LOINC | Injury-General Trauma Management |
| LA23831-3 | LOINC | Injury-Lightning/Lightning Strike |
| LA23832-1 | LOINC | Injury-SCUBA Injury/Accidents |
| LA23833-9 | LOINC | Injury-Topical Chemical Burn |
| LA23834-7 | LOINC | Medical-Beta Blocker Poisoning/Overdose |
| LA23835-4 | LOINC | Medical-Calcium Channel Blocker Poisoning/ Overdose |
| LA23836-2 | LOINC | Medical-Opioid Poisoning/Overdose |
| LA23837-0 | LOINC | Medical-Respiratory Distress-Bronchiolitis |
| LA23838-8 | LOINC | Medical-Respiratory Distress-Croup |
| LA23839-6 | LOINC | Medical-Stimulant Poisoning/Overdose |
| LA24136-6 | LOINC | Cardiac Arrest-Do Not Resuscitate |
| LA24137-4 | LOINC | Cardiac Arrest-Special Resuscitate Orders |
| LA24139-0 | LOINC | General-Community Paramedicine / Mobile Integrated Healthcare |
| LA24140-8 | LOINC | General-Exception Protocol |
| LA24141-6 | LOINC | General-Extended Care Guidelines |
| LA24142-4 | LOINC | General-Interfacility Transfers |
| LA24143-2 | LOINC | General-Law Enforcement - Blood for Legal Purposes |
| LA24144-0 | LOINC | General-Law Enforcement - Assist with Law Enforcement Activity |
| LA24145-7 | LOINC | General-Neglect or Abuse Suspected |
| LA24146-5 | LOINC | General-Refusal of Care |
| LA24147-3 | LOINC | Injury-Mass/Multiple Casualties |
| LA24148-1 | LOINC | Injury-Thoracic |
| LA24149-9 | LOINC | Medical-Adrenal Insufficiency |
| LA24150-7 | LOINC | Medical-Apparent Life Threatening Event (ALTE) |
| LA24151-5 | LOINC | Medical-Tachycardia |
| LA23827-1 | LOINC | Cardiac Arrest-Determination of Death / Withholding Resuscitative Efforts |
| LA24138-2 | LOINC | Exposure-Smoke Inhalation |

##### Protocol Age Category

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| --- | --- |
| 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 |

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

##### Provider Adverse Event Type

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| --- | --- |
| 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 |

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

##### Provider Response Role

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| --- | --- |
| Value Set | ProviderResponseRole - 2.16.840.1.113883.17.3.11.80 |

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| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Role filled by an EMS professional |

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

##### Provider Role

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

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| **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 |
| LA32966-6 | LOINC | Fire Personnel (non EMS) |
| LA9277-0 | LOINC | Family Member |
| LA32964-1 | LOINC | Law Enforcement |

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| --- | --- | --- |
| LA28538-9 | LOINC | Lay Person |
| LA4634-7 | LOINC | Patient |
| LA32922-9 | LOINC | Emergency Medical Technician - Intermediate |
| LA33278-5 | LOINC | Healthcare Provider (non-911 Responder) |
| LA9405-7 | LOINC | Bystander |
| LA33280-1 | LOINC | First Responder (Law Enforcement) |
| LA33281-9 | LOINC | First Responder (non-EMS Fire) |
| LA33282-7 | LOINC | EMS Responder (transport EMS) |
| LA33279-3 | LOINC | First Responder (EMS) |

##### Race Category

|  |  |
| --- | --- |
| Value Set | RaceCategory - 2.16.840.1.114222.4.11.836 |
| Code System | Race and Ethnicity - CDC - 2.16.840.1.113883.6.238 |
| Source URL | https://phinvads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11- B38D-00188B398520 |

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

##### Reason Procedure not Performed

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

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| **Code** | **Code System** | **Print Name** |
| LA15185-4 | LOINC | Unable to complete |

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| 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 |

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

##### Reason Resuscitation Not Attempted

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

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

##### Registry Type

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

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| **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 |

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| --- | --- | --- |
| **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

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

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| **Code** | **Code System** | **Print Name** |
| LA22798-5 | LOINC | Intersection Navigation-Against Normal Light Patterns |
| LA22799-3 | LOINC | Intersection Navigation-With Automated Light Changing Technology |
| LA22800-9 | LOINC | Intersection Navigation-With Normal Light Patterns |
| LA22801-7 | LOINC | Speed-Enhanced per Local Policy |
| LA22802-5 | LOINC | Speed-Normal Traffic |
| LA22803-3 | LOINC | Lights and Sirens |
| LA22804-1 | LOINC | Lights and No Sirens |
| LA22805-8 | LOINC | No Lights or Sirens |
| LA22806-6 | LOINC | Initial No Lights or Sirens, Upgraded to Lights and Sirens |
| LA22807-4 | LOINC | Initial Lights and Sirens, Downgraded to No Lights or Sirens |
| LA22869-4 | LOINC | Unscheduled |
| LA22866-0 | LOINC | 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 |

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| --- | --- | --- |
| **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

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| 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 |

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| **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 |

##### 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 |

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| **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 |

|  |  |  |
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| LA9391-9 | LOINC | Eye protection |
| LA9392-7 | LOINC | Protective clothing |
| LA9393-5 | LOINC | Personal flotation device |
| LA11137-9 | 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 |
| LA32978-1 | LOINC | Support Services |
| LA32983-1 | LOINC | Emergency Response (Mutual Aid) |
| LA32982-3 | LOINC | Hospital to Non-Hospital Facility Transfer |
| LA32981-5 | LOINC | Non-Hospital Facility to Non-Hospital Facility Transfer |
| LA32980-7 | LOINC | Non-Hospital Facility to Hospital Transfer |
| LA32979-9 | LOINC | Other Routine Medical Transport |
| LA17595-2 | LOINC | Non-Patient Care Rescue/Extrication |
| LA32977-3 | LOINC | Crew Transport Only |
| LA32984-9 | LOINC | Transport of Organs or Body Parts |
| LA32976-5 | LOINC | Mortuary Services |
| LA32975-7 | LOINC | Mobile Integrated Health Care Encounter |
| LA32974-0 | LOINC | Evaluation for Special Referral/Intake Programs |
| LA32973-2 | 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 |
| LA6626-1 | LOINC | Normal |
| 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 stoke scale type |
| LA3774-2 | LOINC | Massachusetts Stroke Scale (MSS) |
| LA24430-3 | LOINC | FAST-ED |
| LA33001-1 | LOINC | Los Angeles Motor Score (LAMS) |
| LA33000-3 | LOINC | Rapid Arterial oCclusion Evaluation (RACE) |
| LA32999-7 | LOINC | Melbourne Ambulance Stroke Screen (MASS) |
| LA32998-9 | LOINC | Ontario Prehospital Stroke Scale (OPSS) |
| LA32997-1 | LOINC | Boston Stroke Scale (BOSS) |
| LA33002-9 | 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 System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA33327-0 | LOINC | No Transport |
| LA33326-2 | LOINC | Non-Patient Transport (Not Otherwise Listed) |
| LA29248-4 | LOINC | Patient Refused Transport |
| LA33324-7 | LOINC | Transport by Another EMS Unit, with a Member of This Crew |
| LA33323-9 | LOINC | Transport by Another EMS Unit |
| LA33322-1 | LOINC | Transport by This EMS Unit, with a Member of Another Crew |
| LA33321-3 | LOINC | 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 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |
| Definition | Techniques for managing transport speed |

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

##### Transportation Mode

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

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

##### Trauma Center Criteria

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

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA23844-6 | 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 |

##### Unit Disposition

|  |  |
| --- | --- |
| Value Set | Unit Disposition - 2.16.840.1.113883.17.3.11.112 |
| Code System | LOINC - 2.16.840.1.113883.6.1 |

|  |  |  |
| --- | --- | --- |
| **Code** | **Code System** | **Print Name** |
| LA33304-9 | LOINC | Cancelled on Scene |
| LA33305-6 | LOINC | Cancelled Prior to Arrival at Scene |
| LA33306-4 | LOINC | No Patient Contact |
| LA33307-2 | LOINC | No Patient Found |
| LA33308-0 | LOINC | Non-Patient Incident (Not Otherwise Listed) |
| LA33303-1 | LOINC | 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 |
| LA32989-8 | LOINC | Ground Transport (BLS Equipped) |
| LA32988-0 | LOINC | Ground Transport (Critical Care Equipped) |
| LA32987-2 | LOINC | Non-Transport-Medical Treatment (ALS Equipped) |
| LA32986-4 | LOINC | Non-Transport-Medical Treatment (BLS Equipped) |
| LA32991-4 | LOINC | Wheel Chair Van/Ambulette |
| LA32985-6 | LOINC | Non-Transport-No Medical Equipment |
| LA32990-6 | 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](#_bookmark321) [Departments of Motor Vehicles](#_bookmark321)
* [Nulls and Negative Action](#_bookmark322) [Values](#_bookmark322)
* [UCUM Unit Mapping](#_bookmark323)
* [Gender](#_bookmark324)
* [NEMSIS Routes Mapped to](#_bookmark325) [FDA Routes of Administration](#_bookmark325)
* [Crosswalk](#_bookmark326)

#### 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 NEMSIS null and negative action values to the appropriate values and structures in the HL7 CDA specification.

**NEMSIS Negative Action Values**

Unable to Complete

**Type Case**

**Solution**

null

observation

Unable to Complete

neg medication

Unable to Complete

neg procedure

Refused

null

Observation.value = null (NI); obs.text = "unable to complete"

Negate specific medication; put "unable to complete" value in Medication Not Administered Reason Observation

Negate specific procedure; put "Physically unable to perform" value in Abandoned Procedure Reason Observation

Observation.value = null (ASKU)

Refused

neg

Refused

observation (including history)

medication given

neg procedure performed

negate specific medication; put "refused" value in MedicationNotAdministeredReason observation

negate specific procedure; put "refused" value in ReasonProcedureNotAttempted observation

Exam finding not present (measurement)

Exam finding not present (presence)

null observation Observation.value = null (NAV) neg observation negate specific observation value

No known drug allergies neg observation:

negation value

None reported neg observation: alcohol

Contraindication noted neg medication, procedure

Denied by order neg medication, procedure

Use Boolean observation ExistenceOfDrugAllergy

Use Boolean observation ExistenceOfDrugUseIndication

negate specific procedure or medication; use related reason observation to record reason

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

**Proper Values**

Not done null observation Observation.value = null (NASK)

#### UCUM Unit Mapping

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

|  |  |  |  |
| --- | --- | --- | --- |
| **NEMSIS**  **Question** | **Description** | **PQ QTY** | **PQ Units Supporting values (UCUM)** |
| eMedications.06 | Grams | Yes | g |
| eMedications.06 | Milligrams per Hour (mg/hr) | Yes | mg/h |
| eMedications.06 | Units | Yes | {unit} |
| eMedications.06 | Units per Kilogram per Hour (units/kg/ hr) | Yes | /kg/h |
| eMedications.06 | Centimeters (cm) | Yes | cm |
| eMedications.06 | Units per Kilogram (units/ kg) | Yes | {unit}/kg |

eMedications.06 Micrograms per

Kilogram (mcg/ kg)

eMedications.06 Units per Hour

(units/hr)

Yes ug/kg

Yes {unit}/h

eMedications.06 Puffs Yes 1 substanceAdministration.administrationUnitCode =

PUFF; codeSystem =2.16.840.1.113883.1.11.14570

eMedications.06 Milligrams per

Minute (mg/min)

eMedications.06 Milligrams per

Kilogram (mg/ kg)

eMedications.06 Micrograms per

Minute (mcg/ min)

eMedications.06 Liters Per Minute

(LPM [gas])

Yes mg/min

Yes mg/kg

Yes ug/min

Yes L/min

eMedications.06 Drops (gtts) Yes [drp] eMedications.06 Inches Yes [in\_i]

eMedications.06 International

Units

eMedications.06 Keep Vein Open

(To Keep Open)

Yes [iU]

No substanceAdministration.value.nullFlavor

= QS (sufficient quantity); codeSystem = 2.16.840.1.113883.5.1008

eMedications.06 Liters Per Minute Yes L/min

eMedications.06 MDI Puffs Yes 1 substanceAdministration.administrationUnitCode

= PUFF; codeSystem

=2.16.840.1.113883.1.11.14570;

originalText="MDI Puffs"

eMedications.06 Micrograms Yes ug

eMedications.06 Micrograms per

Kilogram per Minute

Yes ug/kg/ min

eMedications.06 Milliequivalents Yes meq eMedications.06 Milligrams Yes mg

eMedications.06 Milligrams Per

Kilogram Per Minute

Yes mg/kg/ min

eMedications.06 Milliliters Yes mL

eMedications.06 Milliliters Per

Hour

Yes mL/h

eMedications.06 Other Yes 1 substanceAdministration.value.units = OTH;

codeSystem = 2.16.840.1.113883.5.1008

ehistory.14 cm Yes cm

ehistory.14 gms Yes g

ehistory.14 gtts (drops) Yes 1 substanceAdministration.administrationUnitCode

= DROP; codeSystem = 2.16.840.1.113883.1.11.14420

ehistory.14 inches Yes [in\_i]

ehistory.14 iu Yes [iU]

ehistory.14 kvo (keep vein open)

No substanceAdministration.value.nullFlavor

= QS (sufficient quantity); codeSystem = 2.16.840.1.113883.5.1008

ehistory.14 l/min (fluid administration)

Yes L/min

ehistory.14 liters Yes L

ehistory.14 LPM (gas administration)

Yes L/min

ehistory.14 mcg Yes ug ehistory.14 mcg/kg/min Yes ug/kg/

min

ehistory.14 mcg/min Yes ug/min ehistory.14 meq Yes meq

ehistory.14 metered dose Yes 1 substanceAdministration.value.units = OTH;

codeSystem = 2.16.840.1.113883.5.1008

ehistory.14 mg Yes mg

ehistory.14 mg/kg Yes mg/kg ehistory.14 mg/kg/min Yes mg/kg/

min

ehistory.14 mg/min Yes mg/min

ehistory.14 ml Yes mL

ehistory.14 ml/hr Yes mL/h

ehistory.14 other (Not Listed)

Yes 1 substanceAdministration.value.units = OTH;

codeSystem = 2.16.840.1.113883.5.1008

ehistory.14 puffs Yes 1 substanceAdministration.administrationUnitCode =

PUFF; codeSystem =2.16.840.1.113883.1.11.14570

ehistory.14 units/hr Yes 1/h

epatient.16 Days Yes d

epatient.16 Hours Yes h

epatient.16 Minutes Yes min

epatient.16 Months Yes mo

epatient.16 Years Yes a

esituation.06 Seconds Yes s

esituation.06 Minutes Yes min

esituation.06 Hours Yes h

esituation.06 Days Yes d

|  |  |  |  |
| --- | --- | --- | --- |
| esituation.06 | Weeks | Yes | wk |
| esituation.06 | Months | Yes | mo |
| esituation.06 | Years | Yes | a |
| **Gender** |  |  |  |

NEMSIS gender codes can be represented as follows.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS NEMSIS**  **code term** | **CDACDA**  **code Term** | | **CDA System** | **Other Parameters** |
| 9906001 Female | F | Female | 2.16.840.1.113883.5.1 |  |
| 9906003 Male | M | Male | 2.16.840.1.113883.5.1 |  |
| 9906007 Female- | M | Male | 2.16.840.1.113883.5.1 | <translation code ="9906007" |
| to-Male, |  |  |  | displayName="Female-to- |
| Transgender |  |  |  | Male, Transgender Male" |
| Male |  |  |  | codeSystem="2.16.840.1.1133883.17.3.12"> |
| 9906009 Male-to- | F | Female | 2.16.840.1.113883.5.1 | <translation code ="9906007" |
| Female, |  |  |  | displayName="Male-to- |
| Transgender |  |  |  | Female, Transgender Female" |
| Female |  |  |  | codeSystem="2.16.840.1.1133883.17.3.12"> |
| 9906011 Other, |  |  |  | NullFlavor="OTH" |
| neither |  |  |  |  |
| exclusively |  |  |  |  |
| male or |  |  |  |  |
| female |  |  |  |  |
| 9906005 Unknown |  |  |  | NullFlavor="UNK" |
| (Unable to |  |  |  |  |
| Determine) |  |  |  |  |

#### NEMSIS Routes Mapped to FDA Routes of Administration

This appendix maps NEMSIS routes of administration to FDA routes. It also specifies how information implicit in NEMSIS 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).

|  |  |  |
| --- | --- | --- |
| **NEMSIS value** | **StandardStandard Text Code** | **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" |

**NEMSIS value StandardStandard Text Other Parameters Code**

BVM C38216 Respiratory (Inhalation)

CPAP C38216 Respiratory (Inhalation)

SubstanceAdministration/Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ParticipantRole/

classCode="MANU" (manufactured product) SubstanceAdministration/Participant/ParticipantRole/Device/ code

@ originalText = "BVM"

SubstanceAdministration/Participant/ typeCode="DEV" (device) SubstanceAdministration/ Participant/ParticipantRole/

classCode="MANU" (manufactured product) SubstanceAdministration/Participant/ParticipantRole/Device/ code

@ originalText = "CPAP"

Endotracheal tube

Gastrostomy/ Feeding Tube

Gastrostomy tube

C38208 ENDOTRACHEAL C38246 INTRAGASTRIC 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"

**NEMSIS value StandardStandard Text Other Parameters Code**

Nasal Cannula C38216 RESPIRATORY

(INHALATION)

Nasal C38284 NASAL

Nasal prongs C38216 RESPIRATORY

(INHALATION)

Nasogastric C38285 NASOGASTRIC

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""

Alternate SCT format for above explicitly modeled concept (same content): 405815000 |procedure device (attribute)| = 39849001 |nasal oxygen cannula (Type:= physical object)|

Nasotracheal Tube

C38208 ENDOTRACHEAaLpproachSiteCode @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"

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

**NEMSIS value StandardStandard Text Other Parameters Code**

Subcutaneous C38299 SUBCUTANEOUS Sublingual C38300 SUBLINGUAL Topical C38304 TOPICAL Tracheostomy C38308 TRANSTRACHEAL Transdermal C38305 TRANSDERMAL

Umbilical Artery Catheter

Umbilical Venous 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"

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 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

#### Crosswalk

This table indicates where in the document to find a given NEMSIS element, and what element is represented by the templates in the guide. Templates defined in this guide have the root 2.16.840.1.1133883.17.3.10.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eAirway.02 | Airway Confirmation Observation | Observation time | [root].1.175 | 71576-3 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eAirway.03 | Device | Procedure device | [root].1.181 | 71574-8 |
| eAirway.04 | Confirmation | Observation method | [root].1.175 |  |
|  | method |  |  |  |
| eArrest.01 | Cardiac Arrest | Observation | [root].1.27 |  |
|  |  | negation |  |  |
| eArrest.01 | Cardiac Arrest | Observation value | [root].1.123 | 67502-5 |
| eArrest.02 | Cardiac Arrest | Observation value | [root].1.124 | 67503-3 |
|  | Etiology |  |  |  |
| eArrest.03 | Resuscitation | Procedure | [root].1.181 | 72115-9 |
|  | Attempted By EMS |  |  |  |
| eArrest.03 | Resuscitation | Observation value | [root].1.137 | 67504-1 |
|  | Attempted By EMS | for negatives |  |  |
| eArrest.04 | Arrest Witnessed by | Informant | [root].1.27 | 67505-8 |
| eArrest.07 | AED Use Prior to | Observation value | [root].1.131 | 67508-2 |
|  | EMS Arrival |  |  |  |
| eArrest.09 | Type of CPR | Procedure | [root].1.181 | 67510-8 |
|  | Provided |  |  |  |
| eArrest.10 | Therapeutic | Procedure | [root].1.181 | 67511-6 |
|  | Hypothermia by |  |  |  |
|  | EMS |  |  |  |
| eArrest.11 | First Monitored | Observation value | [root].1.127 | 67512-4 |
|  | Arrest Rhythm of |  |  |  |
|  | the Patient |  |  |  |
| eArrest.12 | Any Return of | Observation value | [root].1.128 | 88670-5 |
|  | Spontaneous |  |  |  |
|  | Circulation |  |  |  |
| eArrest.14 | Time of Cardiac | Observation time | [root].1.27 |  |
|  | Arrest |  |  |  |
| eArrest.15 | Date/Time | Procedure status, | [root].1.181 | none |
|  | Resuscitation | time |  |  |
|  | Discontinued |  |  |  |
| eArrest.16 | Reason CPR/ | Observation value | [root].1.130 | 67574-4 |
|  | Resuscitation |  |  |  |
|  | Discontinued |  |  |  |
| eArrest.17 | Cardiac Rhythm | Observation value | [root].1.129 | 67519-9 |
|  | on Arrival at |  |  |  |
|  | Destination |  |  |  |
| eArrest.18 | End of EMS Cardiac | Observation value | [root].1.184 | 77152-7 |
|  | Arrest Event |  |  |  |
| eArrest.20 | Who First Initiated | Procedure performer | [root].1.181 | 88102-9 |
|  | CPR |  |  |  |
| eArrest.21 | Who First Applied | Procedure performer | [root].1.181 | 100034-8 |
|  | the AED |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eArrest.22 | Who First | Procedure performer | [root].1.181 | 88663-0 |
|  | Defibrillated the |  |  |  |
|  | Patient |  |  |  |
| eCrew.01 | Crew Member ID | Service event | [root].2 |  |
|  |  | perfomer |  |  |
| eCrew.02 | Crew Member Level | Service event | [root].2 | 71580-5 |
|  |  | perfomer |  |  |
| eCrew.03 | Crew Member | Service event | [root].2 | 71581-3 |
|  | Response Role | perfomer |  |  |
| eDispatch.01 | Complaint Reported | Observation value | [root].1.74 | 67570-2 |
|  | by Dispatch |  |  |  |
| eDispatch.02 | EMD Performed | Observation value | [root].1.73 | 67488-7 |
| eDisposition.02 | Destination/ | Header participation | [root].2 | 71578-9 |
|  | Transferred To, |  |  |  |
|  | Code |  |  |  |
| eDisposition.03 | Destination Street | Header participation | [root].2 |  |
|  | Address |  |  |  |
| eDisposition.04 | Destination City | Header participation | [root].2 |  |
| eDisposition.05 | Destination State | Header participation | [root].2 |  |
| eDisposition.06 | Destination County | Header participation | [root].2 |  |
| eDisposition.07 | Destination Zip | Header participation | [root].2 |  |
|  | Code |  |  |  |
| eDisposition.11 | Number of Patients | Observation value | [root].1.31 | 67547-0 |
|  | Transported in this |  |  |  |
|  | EMS Unit |  |  |  |
| eDisposition.16 | EMS Transport | Observation value | [root].1.34 | 67549-6 |
|  | Method |  |  |  |
| eDisposition.17 | Transport Mode | Observation value | [root].1.33 | 67550-4 |
|  | from Scene |  |  |  |
| eDisposition.18 | Additional | Observation value | [root].1.193 | 77153-5 |
|  | Transport Mode |  |  |  |
|  | Descriptors |  |  |  |
| eDisposition.19 | Final patient acuity | Observation value | [root].1.37 | 77941-3 |
| eDisposition.20 | Reason for | Observation value | [root].1.35 | 67552-0 |
|  | Choosing |  |  |  |
|  | Destination |  |  |  |
| eDisposition.21 | Type of Destination | Header participation | [root].2 | 71578-9 |
| eDisposition.22 | Hospital In-Patient | Observation value | [root].1.186 | 77154-3 |
|  | Destination |  |  |  |
| eDisposition.23 | Hospital Capability | Observation value | [root].1.104 | 77155-0 |
| eDisposition.24 | Destination | Observation value | [root].1.36 | 69462-0 |
|  | Prearrival |  |  |  |
|  | Activation |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eDisposition.25 | Destination | Observation time | [root].1.36 | 69462-0 |
|  | Prearrival |  |  |  |
|  | Activation Date/ |  |  |  |
|  | Time |  |  |  |
| eDisposition.27 | Unit Disposition | Observation value | [root].1.196 | 100037-1 |
| eDisposition.28 | Patient Evaluation/ | Observation value | [root].1.197 | 100038-9 |
|  | Care |  |  |  |
| eDisposition.29 | Crew Disposition | Observation value | [root].1.198 | 100039-7 |
| eDisposition.30 | Transport | Observation value | [root].1.199 | 100040-5 |
|  | Disposition |  |  |  |
| eExam.01 | Estimated | Observation value | [root].1.178 | 8335-2 |
|  | Body Weight in |  |  |  |
|  | Kilograms |  |  |  |
| eExam.02 | Length Based Tape | Observation value | [root].1.110 | 67670-0 |
|  | Measure |  |  |  |
| eExam.03 | Date/Time of | Observation time | many |  |
|  | Assessment |  |  |  |
| eExam.04 | Skin Assessment | Observation value | [root].1.180 | 67524-9 |
| eExam.05 | Head Assessment | Observation value | [root].1.113 | 67525-6 |
| eExam.06 | Face Assessment | Observation value | [root].1.112 | 67526-4 |
| eExam.07 | Neck Assessment | Observation value | [root].1.114 | 67527-2 |
| eExam.09 | Heart Assessment | Observation value | [root].1.116 | 67529-8 |
| eExam.10 | Abdominal Exam | Observation site | [root].1.117 | 71584-7 |
|  | Finding Location |  |  |  |
| eExam.11 | Abdomen | Observation value | [root].1.117 | 67530-6 |
|  | Assessment |  |  |  |
| eExam.12 | Pelvis/Genitourinary | Observation value | [root].1.118 | 67531-4 |
|  | Assessment |  |  |  |
| eExam.13 | Back and Spine | Observation site | [root].1.119 | 71589-6 |
|  | Assessment Finding |  |  |  |
|  | Location |  |  |  |
| eExam.14 | Back and Spine | Observation value | [root].1.119 | 67532-2 |
|  | Assessment |  |  |  |
| eExam.15 | Extremity | Observation site | [root].1.120 | 71585-4 |
|  | Assessment Finding |  |  |  |
|  | Location |  |  |  |
| eExam.16 | Extremities | Observation value | [root].1.120 | 67533-0 |
|  | Assessment |  |  |  |
| eExam.17 | Eye Assessment | Observation site | [root].1.121 | 71586-2 |
|  | Finding Location |  |  |  |
| eExam.18 | Eye Assessment | Observation value | [root].1.121 | 67534-8 |
| eExam.19 | Mental Status | Observation value | [root].1.122 | 67535-5 |
|  | Assessment |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eExam.20 | Neurological | Observation value | [root].1.141 | 67536-3 |
|  | Assessment |  |  |  |
| eExam.22 | Lung Assessment | Observation site | [root].1.194 | 100036-3 |
|  | Finding Location |  |  |  |
| eExam.23 | Lung Assessment | Observation value | [root].1.194 | 32449-1 |
| eExam.24 | Chest Assessment | Observation site | [root].1.195 | 100035-5 |
|  | Finding Location |  |  |  |
| eExam.25 | Chest Assessment | Observation value | [root].1.195 | 11422-3 |
| eHistory.01 | Barriers to Patient | Observation value | [root].1.83 | 67515-7 |
|  | Care |  |  |  |
| eHistory.05 | Advance Directives | Observation value | [root].1.98 | 67516-5 |
| eHistory.06 | Medication allergies | Observation value | [root].1.48, 102 | 67794-8 |
| eHistory.07 | Environmental | Observation value | [root].1.104 | 79151-7 |
|  | allergies |  |  |  |
| eHistory.07 | Environmental | Observation value | [root].1.103 | 69747-4 |
|  | allergies |  |  |  |
| eHistory.08 | Medical/surgical | Observation value | [root].1.61 | 68487-8 |
|  | history |  |  |  |
| eHistory.08 | Medical/surgical | Observation value | [root].1.60, 61 | 67793-0 |
|  | history |  |  |  |
| eHistory.12 | Current Medications | Substance admin | [root].1.75 | 67791-4 |
|  |  | present |  |  |
| eHistory.12 | Current Medications | Substance admin | [root].1.77 |  |
|  |  | substance |  |  |
| eHistory.12 | Current Medications | Substance admin | [root].1.77 |  |
|  |  | null flavor |  |  |
| eHistory.12 | Current Medications | Substance admin | [root].1.77 |  |
|  |  | negation |  |  |
| eHistory.13 | Current Medication | Substance admin | [root].1.77 |  |
|  | Dose | dose |  |  |
| eHistory.14 | Current Medication | Substance admin | [root].1.77 |  |
|  | Dosage Unit | dose unit |  |  |
| eHistory.15 | Current Medication | Substance admin | [root].1.77 |  |
|  | Administration | route |  |  |
|  | Route |  |  |  |
| eHistory.17 | Alcohol/Drug Use | Observation value | [root].1.71 | 67669-2 |
|  | Indicators |  |  |  |
| eHistory.17 | Alcohol/Drug Use | Observation value | [root].1.70 | 69757-3 |
|  | Indicators |  |  |  |
| eHistory.18 | Pregnancy | Observation value | [root].1.79 | 67471-3 |
| eHistory.19 | Last oral intake | Observation value | [root].1.80 | 67517-3 |
| eInjury.01 | Cause of Injury | Observation value | [root].1.50 | 69543-7 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eInjury.02 | Mechanism of | Observation value | [root].1.51 | 67494-5 |
|  | Injury |  |  |  |
| eInjury.03 | Trauma Triage | Observation value | [root].1.52 | 67495-2 |
|  | Criteria (Steps 1 and |  |  |  |
|  | 2) |  |  |  |
| eInjury.04 | Trauma Triage | Observation value | [root].1.53 | 67496-0 |
|  | Criteria (Steps 3 and |  |  |  |
|  | 4) |  |  |  |
| eInjury.05 | The primary area or | Observation value | [root].1.54 | 67497-8 |
|  | location of impact |  |  |  |
|  | on the vehicle |  |  |  |
| eInjury.06 | Location of Patient | Observation value | [root].1.55 | 67498-6 |
|  | in Vehicle |  |  |  |
| eInjury.07 | Use of Occupant | Observation value | [root].1.56 | 67499-4 |
|  | Safety Equipment |  |  |  |
| eInjury.08 | Airbag Deployment | Observation value | [root].1.57 | 67500-9 |
| eInjury.09 | Height of Fall (feet) | Observation value | [root].1.58 | 67501-7 |
| eMedications.01 | Date/Time | Substance admin | [root].1.72 |  |
|  | Medication | time |  |  |
|  | Administered |  |  |  |
| eMedications.02 | Medication | Observation value | [root].1.108 | 67539-7 |
|  | Administered Prior |  |  |  |
|  | to this Units EMS |  |  |  |
|  | Care |  |  |  |
| eMedications.03 | Medication Given | Observation value | [root].1.105 | 72113-4 |
| eMedications.03 | Medication Given | Substance admin | [root].1.72 |  |
|  |  | negation |  |  |
| eMedications.03 | Medication Given | Substance admin | [root].1.72 | 67797-1 |
|  |  | substance |  |  |
| eMedications.04 | Medication | Substance admin | [root].1.72 |  |
|  | Administration | route |  |  |
|  | Route |  |  |  |
| eMedications.05 | Medication Dosage | Substance admin | [root].1.72 |  |
|  |  | rate |  |  |
| eMedications.05 | Medication Dosage | Substance admin | [root].1.72 |  |
|  |  | dose |  |  |
| eMedications.06 | Medication Dosage | Substance admin | [root].1.72 |  |
|  | Unit | dose unit |  |  |
| eMedications.06 | Medication Dosage | Substance admin | [root].1.72 |  |
|  | Unit | rate unit |  |  |
| eMedications.07 | Response to | Observation value | [root].1.106 | 67540-5 |
|  | Medication |  |  |  |
| eMedications.08 | Medication | Observation value | [root].1.107 | 67541-3 |
|  | Complication |  |  |  |

|  |  |  |  |  |
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| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eMedications.09 | Medication Crew | Substance admin | [root].1.72 |  |
|  | (Healthcare | performer |  |  |
|  | Professionals) ID |  |  |  |
| eMedications.10 | EMS or Healthcare | Substance admin | [root].1.72 |  |
|  | Professional Type | performer |  |  |
|  | Administering |  |  |  |
|  | Medication |  |  |  |
| eMedications.11 | Medication | Act relationship | [root].1.72 | 71573-0 |
|  | Authorization |  |  |  |
| eNarrative.01 | Patient Care Report | Section text | [root].1.1 | 67781-5 |
|  | Narrative |  |  |  |
| eOther.02 | Potential System | Observation value | [root].1.94 | 67553-8 |
|  | of Care/Specialty/ |  |  |  |
|  | Registry Patient |  |  |  |
| eOther.05 | Suspected EMS | Observation value | [root].1.89 | 67554-6 |
|  | Work Related |  |  |  |
|  | Exposure, Injury, or |  |  |  |
|  | Death |  |  |  |
| eOther.06 | Type of Suspected | Observation value | [root].1.90 | 67555-3 |
|  | EMS Blood/Body |  |  |  |
|  | Fluid Exposure, |  |  |  |
|  | Injury, or Death |  |  |  |
| eOther.07 | Suspected | Observation value | [root].1.59 | 69463-8 |
|  | Intentional, or |  |  |  |
|  | Unintentional |  |  |  |
|  | Disaster |  |  |  |
| eOther.08 | Who Generated this | Assigned Author | [root].2 |  |
|  | Report? |  |  |  |
| epatient.01 | id | Record Target | [root].2 |  |
| ePatient.02 | Last Name | Record Target | [root].2 |  |
| ePatient.03 | First Name | Record Target | [root].2 |  |
| ePatient.04 | Middle Initial/Name | Record Target | [root].2 |  |
| ePatient.05 | Patient's Home | Record Target | [root].2 |  |
|  | Address |  |  |  |
| ePatient.06 | Patient's Home City | Record Target | [root].2 |  |
| ePatient.07 | Patient's Home | Record Target | [root].2 |  |
|  | County |  |  |  |
| ePatient.08 | Patient's Home State | Record Target | [root].2 |  |
| ePatient.09 | Patient's Home Zip | Record Target | [root].2 |  |
|  | Code |  |  |  |
| ePatient.10 | Patient's Home | Record Target | [root].2 |  |
|  | Country |  |  |  |
| ePatient.12 | Social Security | Record Target | [root].2 |  |
|  | Number |  |  |  |

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| ePatient.13 | Gender | Record Target | [root].2 |  |
| ePatient.14 | Race | Record Target | [root].2 |  |
| ePatient.14 | Race | Record Target | [root].2 |  |
| ePatient.15 | Age | Observation value | [root].1.81 |  |
| ePatient.16 | Age Units | Observation value | [root].1.81 |  |
| ePatient.17 | Date of Birth | Record Target | [root].2 |  |
| ePatient.18 | Primary or Home | Record Target | [root].2 |  |
|  | Telephone Number |  |  |  |
| ePayment.50 | CMS Service Level | Observation value | [root].1.92 | 69464-6 |
| ePayment.51 | EMS Condition | Observation value | [root].1.91 | 67556-1 |
|  | Code |  |  |  |
| eProcedures.01 | Date/Time | Procedure time | [root].1.181 |  |
|  | Procedure |  |  |  |
|  | Performed |  |  |  |
| eProcedures.02 | Procedure | Observation value | [root].1.131 | 67542-1 |
|  | Performed Prior to |  |  |  |
|  | this Units EMS Care |  |  |  |
| eProcedures.03 | Procedure | Observation value | [root].1.137 | 72112-6 |
| eProcedures.03 | Procedure | Procedure code | [root].1.181 | 67798-9 |
| eProcedures.05 | Number of | Observation value | [root].1.132 | 67543-9 |
|  | Procedure Attempts |  |  |  |
| eProcedures.06 | Procedure | Observation value | [root].1.133 | 67544-7 |
|  | Successful |  |  |  |
| eProcedures.07 | Procedure | Observation value | [root].1.179 | 67545-4 |
|  | Complication |  |  |  |
| eProcedures.08 | Response to | Observation value | [root].1.135 | 67546-2 |
|  | Procedure |  |  |  |
| eProcedures.09 | Procedure Crew | Performer | [root].1.181 |  |
|  | Members ID |  |  |  |
| eProcedures.10 | EMS or Healthcare | Performer | [root].1.181 | 71582-1 |
|  | Professional Type |  |  |  |
|  | Performing the |  |  |  |
|  | Procedure |  |  |  |
| eProcedures.13 | IV Site Location | Procedure | [root].1.181 | 71587-0 |
|  |  | approachSiteCode |  |  |
| eProtocols.01 | Protocols Used | Observation value | [root].1.93 | 67537-1 |
| eProtocols.02 | Protocol Age | Observation value | [root].1.149 | 67538-9 |
|  | Category |  |  |  |
| eRecord.01 | Patient Care Report | Document id | [root].2 |  |
|  | Number |  |  |  |
| eRecord.02 | Software Creator | Assigned Author | [root].2 |  |
| eRecord.03 | Software Name | Assigned Author | [root].2 |  |

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| eRecord.04 | Software Version | Assigned Author | [root].2 |  |
| eResponse.01 | EMS Agency | Assigned Author | [root].2 |  |
|  | Number |  |  |  |
| eResponse.03 | Incident Number | Service event | [root].2 |  |
| eResponse.04 | EMS Vehicle (Unit) | Service event | [root].2 |  |
|  | Response Number |  |  |  |
| eResponse.05 | Type of Service | Service event | [root].2 | 71583-9 |
|  | Requested |  |  |  |
| eResponse.07 | Primary Role of the | HealthCare Facility | [root].2 | 71579-7 |
|  | Unit |  |  |  |
| eResponse.08 | Type of Dispatch | Observation value | [root].1.153 | 67480-4 |
|  | Delay |  |  |  |
| eResponse.09 | Type of Response | Observation value | [root].1.154 | 67557-9 |
|  | Delay |  |  |  |
| eResponse.10 | Type of Scene | Observation value | [root].1.155 | 67558-7 |
|  | Delay |  |  |  |
| eResponse.11 | Type of Transport | Observation value | [root].1.156 | 67559-5 |
|  | Delay |  |  |  |
| eResponse.12 | Type of Turn- | Observation value | [root].1.157 | 67560-3 |
|  | Around Delay |  |  |  |
| eResponse.13 | EMS Vehicle (Unit) | HealthCare Facility | [root].2 |  |
|  | Number |  |  |  |
| eResponse.14 | EMS Unit Call Sign | HealthCare Facility | [root].2 |  |
| eResponse.16 | Vehicle Dispatch | Observation value | [root].1.150 | 69466-1 |
|  | Location |  |  |  |
| eResponse.17 | Vehicle Dispatch | Observation value | [root].1.151 | 69465-3 |
|  | GPS Location |  |  |  |
| eResponse.17 | Vehicle Dispatch | Observation value | [root].1.152 | 69465-3 |
|  | GPS Location |  |  |  |
| eResponse.19 | Beginning | Observation value | [root].1.171 | 67484-6 |
|  | Odometer Reading |  |  |  |
|  | of Responding |  |  |  |
|  | Vehicle |  |  |  |
| eResponse.20 | On-Scene Odometer | Observation value | [root].1.172 | 67485-3 |
|  | Reading of |  |  |  |
|  | Responding Vehicle |  |  |  |
| eResponse.21 | Patient Destination | Observation value | [root].1.173 | 67486-1 |
|  | Odometer Reading |  |  |  |
|  | of Responding |  |  |  |
|  | Vehicle |  |  |  |
| eResponse.22 | Ending Odometer | Observation value | [root].1.174 | 67487-9 |
|  | Reading of |  |  |  |
|  | Responding Vehicle |  |  |  |

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| eResponse.23 | Response Mode to | Observation value | [root].1.182 | 67482-0 |
|  | Scene |  |  |  |
| eResponse.24 | Additional Response | Observation value | [root].1.191 | 77157-6 |
|  | Mode Descriptors |  |  |  |
| eScene.01 | First EMS Unit on | Observation value | [root].1.84 | 67481-2 |
|  | Scene |  |  |  |
| eScene.02 | Other EMS or | Encounter | [root].2 |  |
|  | Public Safety | Participant |  |  |
|  | Agencies at Scene |  |  |  |
| eScene.06 | Number of Patients | Observation value | [root].1.86 | 67489-5 |
|  | at Scene |  |  |  |
| eScene.07 | Mass Casualty | Observation value | [root].1.87 | 67490-3 |
|  | Incident |  |  |  |
| eScene.09 | Incident Location | Observation value | [root].1.88 | 74496-1 |
|  | Type |  |  |  |
| eScene.15 | Incident Address | HealthCare Facility | [root].2 |  |
| eScene.17 | Incident City | HealthCare Facility | [root].2 |  |
| eScene.18 | Incident State | HealthCare Facility | [root].2 |  |
| eScene.19 | Incident Zip Code | HealthCare Facility | [root].2 |  |
| eScene.21 | Incident County | HealthCare Facility | [root].2 |  |
| eSituation.01 | Date/Time of | Observation value | [root].1.63 |  |
|  | Symptom Onset/ |  |  |  |
|  | Last Normal |  |  |  |
| eSituation.02 | Possible Injury | Observation value | [root].1.64 | 69467-9 |
| eSituation.03 | Complaint Type | Observation value | [root].1.138 | 72114-2 |
| eSituation.04 | Chief Complaint | Observation value | [root].1.63 | 10154-3 |
| eSituation.05 | Complaint duration | Observation value | [root].1.139 | 67491-1 |
| eSituation.06 | Time Units of | Observation value | [root].1.139 |  |
|  | Duration of | units |  |  |
|  | Complaint |  |  |  |
| eSituation.07 | Chief Complaint | Observation | [root].1.63 | 71588-8 |
|  | Anatomic Location | targetsitecode |  |  |
| eSituation.08 | Chief Complaint | Observation value | [root].1.140 | 69468-7 |
|  | Organ System |  |  |  |
| eSituation.09 | Primary Symptom | Observation value | [root].1.66 | 67774-0 |
| eSituation.10 | Other Associated | Observation value | [root].1.67 | 67776-5 |
|  | Symptoms |  |  |  |
| eSituation.11 | Provider's Primary | Observation value | [root].1.65 | 67492-9 |
|  | Impression |  |  |  |
| eSituation.12 | Provider's | Observation value | [root].1.68 | 69542-9 |
|  | Secondary |  |  |  |
|  | Impression |  |  |  |

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| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eSituation.13 | Patient's Initial | Observation value | [root].1.69 | 67493-7 |
|  | Condition at Scene |  |  |  |
| eTimes.01 | PSAP Call Date/ | Observation value | [root].1.38 | 69469-5 |
|  | Time |  |  |  |
| eTimes.02 | Dispatch Notified | Observation value | [root].1.46 | 69470-3 |
|  | Date/Time |  |  |  |
| eTimes.03 | Unit Notified by | Observation value | [root].1.39 | 69471-1 |
|  | Dispatch Date/Time |  |  |  |
| eTimes.05 | Unit Enroute Date/ | Observation value | [root].1.40 | 69472-9 |
|  | Time |  |  |  |
| eTimes.06 | Unit Arrived on | Observation value | [root].1.41 | 69473-7 |
|  | Scene Date/Time |  |  |  |
| eTimes.07 | Arrived at Patient | Observation value | [root].1.42 | 69474-5 |
|  | Date/Time |  |  |  |
| eTimes.09 | Unit Left Scene | Observation value | [root].1.43 | 69475-2 |
|  | Date/Time |  |  |  |
| eTimes.11 | Patient Arrived at | Observation value | [root].1.44 | 69476-0 |
|  | Destination Date/ |  |  |  |
|  | Time |  |  |  |
| eTimes.12 | Destination Patient | Destination | [root].2 |  |
|  | Transfer of Care | participation |  |  |
|  | Date/Time |  |  |  |
| eTimes.13 | Unit Back in Service | Observation value | [root].1.45 | 69477-8 |
|  | Date/Time |  |  |  |
| eVitals.01 | Date/Time Vital | Observation time | [root].1.30 |  |
|  | Signs Taken |  |  |  |
| eVitals.02 | Obtained Prior to | Observation value | [root].1.29 | 67518-1 |
|  | this Units EMS Care |  |  |  |
| eVitals.03 | Cardiac Rhythm and | Observation value | [root].1.169 | 67519-9 |
|  | Electrocardiography |  |  |  |
| eVitals.04 | ECG Type | Observation device | [root].1.169 | 71575-5 |
| eVitals.05 | The method of ECG | Observation method | [root].1.169 | 71577-1 |
|  | interpretation |  |  |  |
| eVitals.06 | SBP (Systolic Blood | Observation value | [root].1.23.1 | 8480-6 |
|  | Pressure) |  |  |  |
| eVitals.07 | DBP (Diastolic | Observation value | [root].1.144 | 8462-4 |
|  | Blood Pressure) |  |  |  |
| eVitals.08 | Method of | Observation method | [root].1.144, 23.1 |  |
|  | Blood Pressure |  |  |  |
|  | Measurement |  |  |  |
| eVitals.08 | Method of | Observation method | [root].1.144, 23.1 |  |
|  | Blood Pressure |  |  |  |
|  | Measurement |  |  |  |
| eVitals.10 | Heart Rate | Observation value | [root].1.145 | 8867-4 |

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| **NEMSIS ID** | **NEMSIS name** | **Model approach** | **Template** | **LOINC** |
| eVitals.12 | Pulse Oximetry | Observation value | [root].1.177 | 2708-6 |
| eVitals.14 | Respiratory Rate | Observation value | [root].1.146 | 9279-1 |
| eVitals.16 | Carbon Dioxide | Observation value | [root].1.168 | 19889-5 |
|  | (CO2) |  |  |  |
| eVitals.17 | Carbon Monoxide | Observation value | [root].1.167 | 19911-7 |
| eVitals.18 | Blood Glucose | Observation value | [root].1.166 | 2339-0 |
|  | Level |  |  |  |
| eVitals.19 | Glasgow Coma | Observation value | [root].1.160 | 9267-6 |
|  | Score: Eye |  |  |  |
| eVitals.20 | Glasgow Coma | Observation value | [root].1.162 | 9270-0 |
|  | Score: Verbal |  |  |  |
| eVitals.21 | Glasgow Coma | Observation value | [root].1.192 | 9268-4 |
|  | Score-Motor |  |  |  |
| eVitals.22 | Glasgow Coma | Observation value | [root].1.159 | 55285-1 |
|  | Score-Qualifier |  |  |  |
| eVitals.23 | Total Glasgow | Observation value | [root].1.158 | 9269-2 |
|  | Coma Score |  |  |  |
| eVitals.24 | Temperature | Observation value | [root].1.176 | 8310-5 |
| eVitals.26 | Level of | Observation value | [root].1.165 | 67775-7 |
|  | Responsiveness |  |  |  |
|  | (APVU) |  |  |  |
| eVitals.27 | Pain Score | Observation value | [root].1.164 | 56840-2 |
| eVitals.29 | Stroke Scale Score | Observation value | [root].1.163 | 67520-7 |
| eVitals.30 | Stroke Scale Type | Observation method | [root].1.163 | 67521-5 |
| eVitals.31 | Reperfusion | Observation value | [root].1.82 | 67523-1 |
|  | Checklist |  |  |  |

### 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"?>

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<!--This example is based on ALS test case #1 from the Minnesota EMS Regulatory Board, available at [http://www.emsrb.state.mn.us.](http://www.emsrb.state.mn.us/) Example and guide developed by the National EMS Information System and Ockham Information Sevices 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.-->

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<templateId root="2.16.840.1.113883.17.3.10.2"/> <!-- The EMS PCR specification template identifier -->

<templateId root="2.16.840.1.113883.10.20.22.1.1"/> <!-- We inherit constratints from the Consolidated General Header -->

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<state>MN</state>

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<telecom value="tel:(218)555-1212"/>

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<family>Bearer</family>

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</thead>

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<tr>

<td>Billing Condition</td>

<td>Puncture wound with foreign body of left front wall of thorax with penetration intothoracic cavity</td>

<td></td>

</tr>

<tr>

<td>EMS level of service</td>

<td>ALS, level 1</td>

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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 intothoracic cavity"/>

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<code code="69464-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="EMS level of service"/>

<value xsi:type="CD" code="LA18102-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="ALS, level 1"/>

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<templateId root="2.16.840.1.113883.10.20.22.2.1"/>

<templateId root="2.16.840.1.113883.10.20.22.2.1.1"/>

<code code="10160-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="History of medication use"/>

<title>EMS Current Medications Section</title>

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<tr><th>property</th><th>value</th><th>Notes</th> </tr>

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<tr>

<td>Currently on medication</td>

<td>No inforrmation</td>

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</tr>

<tr>

<td>Patient on anticoagulants</td>

<td>No information</td>

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<code code="67791-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Currently on medication"/>

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<code code="69749-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient on anticoagulants"/>

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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>

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<tr>

<td>Existence of drug allergy</td>

<td>No information</td>

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<code code="67794-8" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Existence of drug allergy"/>

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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"/>

<title>EMS Social History</title>

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<tr>

<td>Indications of drug or alcohol use by the patient</td>

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</tr>

<tr>

<td>Alcohol - drug use</td>

<td>Smell of alcohol on breath</td>

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<code code="69757-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Indications of drug or alcohol use by the

patient"/>

<value xsi:type="BL" value="true"/>

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<id root="2.16.840.1.113883.19.4" extension="1289611790"/>

<code code="67669-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Alcohol - drug use"/>

<value xsi:type="CD" code="LA17328-8" displayName="Alcohol - drug use" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="29545-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="PHYSICAL EXAMINATION"/>

<title>EMS Physical Assessment Section</title>

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<tr><th>property</th><th>value</th><th>Notes</th> </tr>

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<tr>

<td>HeadAssessmentFinding</td>

<td>Normal</td>

<td></td>

</tr>

<tr>

<td>NeckAssessmentFinding</td>

<td>Normal</td>

<td></td>

</tr>

<tr>

<td>ChestAndLungsAssessmentFinding</td>

<td>Bleeding - controlled</td>

<td></td>

</tr>

<tr>

<td></td>

<td>ChestAndLungsAssessmentFinding</td>

<td>Gunshot wound - entry</td>

</tr>

<tr>

<td>ChestAndLungsAssessmentFinding</td>

<td>Breath sounds-decreased-left</td>

<td></td>

</tr>

<tr>

<td>Abdomen assessment</td>

<td>Normal</td>

<td>targetSiteCode: Generalized</td>

</tr>

<tr>

<td>Abdomen assessment</td>

<td>Other</td>

<td>GI normal</td>

</tr>

<tr>

<td>Pelvic and genitourinary assessment</td>

<td>Normal</td>

<td></td>

</tr>

<tr>

<td>Extremities assessment</td>

<td>Normal</td>

<td></td>

</tr>

<tr>

<td>Patient Pregnancy</td>

<td>Not Applicable</td>

<td></td>

</tr>

<tr>

<td>Last Oral Intake</td>

<td>No Information</td>

<td></td>

</tr>

<tr>

<td>Patient Age</td>

<td>28 years</td>

<td></td>

</tr>

<tr>

<td>Contraindications to thrombolytic use</td>

<td>No Information</td>

<td></td>

</tr>

<tr>

<td>Barrier to care</td>

<td>Unconscious</td>

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</tr>

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<code code="67525-6" displayName="HeadAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/>

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<component>

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<code code="67527-2" displayName="NeckAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67528-0" displayName="ChestAndLungsAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA17208-2" displayName="Bleeding controlled" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA17244-7" displayName="Gunshot wound entry" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67528-0" displayName="ChestAndLungsAssessmentFinding" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA17225-6" displayName="Breath sounds-decreased-left" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67530-6" displayName="Abdomen assessment" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/>

<targetSiteCode code="LA18721-3" displayName="Generalized" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67530-6" displayName="Abdomen assessment" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" nullFlavor="OTH">

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<targetSiteCode code="LA18721-3" displayName="Generalized" codeSystem="2.16.840.1.113883.6.1"/>

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<observation classCode="OBS" moodCode="EVN">

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<code code="67531-4" displayName="Pelvic and genitourinary assessment" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67533-0" displayName="Extremities assessment" codeSystem="2.16.840.1.113883.6.1"/>

<value xsi:type="CD" code="LA6626-1" displayName="Normal" codeSystem="2.16.840.1.113883.6.1"/>

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<code code="67517-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Last oral intake"/>

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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"/>

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<observation classCode="OBS" moodCode="EVN">

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<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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<observation classCode="OBS" moodCode="EVN">

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<code code="67523-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Barriers to patient care"/>

<value xsi:type="CD" code="LA17711-5" displayName="Unconscious" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<code code="29549-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Medications Administered"/>

<title>Medications Administered Section</title>

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<tr><th>time</th><th>medication</th><th>route</th><th>site</th><th>dose</th><th>device</th><th>performer</th><th>response</th> </tr>

</thead>

<tbody>

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<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>

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<effectiveTime value="201201011604+0600"/>

<routeCode code="C38216" displayName="Respiratory" codeSystem="2.16.840.1.113883.3.26.1.1.1" codeSystemName="FDA Route of Administration"/>

<approachSiteCode code="15562006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="structure of respiratory region of nose"/>

<doseQuantity value="15" unit="L/min"/>

<consumable>

<manufacturedProduct classCode="MANU">

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<manufacturedMaterial>

<code code="7806" displayName="Oxygen" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<performer>

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<code code="LA18703-1" displayName="EMT-paramedic" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</assignedEntity>

</performer>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code = "425926003" codeSystem="2.16.840.1.113883.6.5" displayName="partial rebreather oxygen mask" codeSystemName="SNOMED CT"/>

</playingDevice>

</participantRole>

</participant>

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<code code="67540-5" displayName="Response to medication" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="CD" code="LA17181-1" displayName="Unchanged" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<code code="67539-7" displayName="Prioradministration" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="BL" value="false"/>

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</entryRelationship>

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<title>EMS Procedures Performed</title>

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<tr><th>time</th><th>procedure</th><th>prior</th><th>success</th><th>complication</th><th>performer</th><th>response</th><th>note</th> </

</thead>

<tbody>

<tr>

<td>2012 01 01 1602</td>

<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>

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<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>

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</tr>

<tr>

<td>2012 01 01 1604</td>

<td>Needle chest decompression</td>

<td>false</td>

<td>true</td>

<td>None</td>

<td>EMT-paramedic: 42742618</td>

<td>Improved</td>

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<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<code code="09HN7BZ" displayName="Medical and Surgical/ Ear, Nose, and Sinus/ Insertion/ Nasopharynx/ Via natural or artificial opening/

Airway/ No qualifier" codeSystem="2.16.840.1.113883.6.4" codeSystemName="ICD-10 PCS"/>

<effectiveTime value="201201011602+0600"/>

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<assignedEntity>

<id root="2.16.840.1.113883.19.4" extension="42742618"/>

<code code="LA18705-6" displayName="Other non-healthcare professional" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC">

<originalText>law enforcement</originalText>

</code>

</assignedEntity>

</performer>

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<observation classCode="OBS" moodCode="EVN">

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<code code="67542-1" displayName="Procedure performed prior to EMS arrival" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="BL" value="true"/>

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</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

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<code code="67544-7" displayName="Procedure successful indicator" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="BL" value="true"/>

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</entryRelationship>

<entryRelationship typeCode="COMP">

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<code code="67545-4" displayName="Procedure complication" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="CD" code="LA137-2" displayName="None" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<observation classCode="OBS" moodCode="EVN">

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<code code="67546-2" displayName="Procedure patient response" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<value xsi:type="CD" code="LA65-8" displayName="Improved" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<value xsi:type="CD" code="LA65-8" displayName="Improved" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<originalText>Cervical Collar</originalText>

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<effectiveTime value="201201011604+0600"/>

<performer>

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<value xsi:type="CD" code="LA65-8" displayName="Improved" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

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<title>EMS Patient Care Report Narrative</title>

<text>

<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>

<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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<title>EMS Scene</title>

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<td>EMS reporter is first unit on scene</td>

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</tr>

<tr>

<td>Name of first unit on scene</td>

<td>law enforcement</td>

<td></td>

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<tr>

<td>Count of patients at scene</td>

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<tr>

<td>Mass Casualty Incident </td>

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<tr>

<td>Location type</td>

<td>Street and highway</td>

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<value xsi:type="CD" code="Y92.41" displayName="Street and highway" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM"/>

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<td>Complaint reported by dispatch</td>

<td>traffic accident</td>

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<code code="67570-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Complaint reported by dispatch"/>

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<td>Number of patients</td>

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<td>Incident disposition</td>

<td>Patient treated, transported by EMS</td>

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<td>Transport mode</td>

<td>Emergent</td>

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<tr>

<td>Reason for choosing destination</td>

<td>Diversion</td>

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<td>Prearrival activation performed</td>

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<td>Patient condition change at destination</td>

<td>Improved</td>

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<title>Exposures or Injuries of EMS Personnel</title>

<text>

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<title>EMS Protocol Section</title>

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<td>Protocol age category</td>

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CM"/>

CM"/>

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<code code="2708-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oxygen saturation"/>

<value xsi:type="PQ" value="90" unit="%"/>

</observation>

</component>

</organizer>

</entry>

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<templateId root="2.16.840.1.113883.10.20.22.4.26"/>

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<code code="46680005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="Vital signs"/>

<statusCode code="completed"/>

<effectiveTime value="201201011611+0600"/>

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<code code="8480-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular systolic"/>

<value xsi:type="PQ" value="96" unit="mm[Hg]"/>

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

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<code code="8462-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular diastolic"/>

<value xsi:type="PQ" value="44" unit="mm[Hg]"/>

</observation>

</component>

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<code code="8867-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Heart rate"/>

<value xsi:type="PQ" value="120" unit="/min"/>

</observation>

</component>

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<id root="2.16.840.1.113883.19.4" extension="1100521092"/>

<code code="9279-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Breaths"/>

<value xsi:type="PQ" value="26" unit="/min"/>

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<code code="2708-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oxygen saturation"/>

<value xsi:type="PQ" value="84" unit="%"/>

</observation>

</component>

</organizer>

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<id root="2.16.840.1.113883.19.4" extension="247546586"/>

<code code="46680005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="Vital signs"/>

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<code code="8480-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular systolic"/>

<value xsi:type="PQ" value="100" unit="mm[Hg]"/>

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

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<code code="8462-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular diastolic"/>

<value xsi:type="PQ" value="54" unit="mm[Hg]"/>

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<id root="2.16.840.1.113883.19.4" extension="787396836"/>

<code code="8867-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Heart rate"/>

<value xsi:type="PQ" value="108" unit="/min"/>

</observation>

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<observation classCode="OBS" moodCode="EVN">

<id root="2.16.840.1.113883.19.4" extension="1100521092"/>

<code code="9279-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Breaths"/>

<value xsi:type="PQ" value="24" unit="/min"/>

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<value xsi:type="PQ" value="93" unit="%"/>

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<code code="8480-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular systolic"/>

<value xsi:type="PQ" value="108" unit="mm[Hg]"/>

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<observation classCode="OBS" moodCode="EVN">

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<code code="8462-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Intravascular diastolic"/>

<value xsi:type="PQ" value="62" unit="mm[Hg]"/>

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<observation classCode="OBS" moodCode="EVN">

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<code code="8867-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Heart rate"/>

<value xsi:type="PQ" value="102" unit="/min"/>

</observation>

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<observation classCode="OBS" moodCode="EVN">

<id root="2.16.840.1.113883.19.4" extension="1100521092"/>

<code code="9279-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Breaths"/>

<value xsi:type="PQ" value="20" unit="/min"/>

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<observation classCode="OBS" moodCode="EVN">

<code code="2708-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Oxygen saturation"/>

<value xsi:type="PQ" value="95" unit="%"/>

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<code code="67775-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Level of responsiveness"/>

<value xsi:type="CD" code="LA9343-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Unresponsive"/>

</observation>

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<organizer classCode="CLUSTER" moodCode="EVN">

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<code code="67519-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac rhythm"/>

<value xsi:type="CD" code="LA17099-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Sinus tachycardia"/>

<methodCode nullFlavor="NI" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</observation>

</component>

</organizer>

</entry>

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.30"/>

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<statusCode code="completed"/>

<effectiveTime value="201201011640+0600"/>

<component>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.169"/>

<id root="2.16.840.1.113883.19.4" extension="1769627615"/>

<code code="67519-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Cardiac rhythm"/>

<value xsi:type="CD" code="LA17099-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Sinus tachycardia"/>

<methodCode nullFlavor="NI"/>

</observation>

</component>

</organizer>

</entry>

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</component>

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<code code="11374-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Injury Incident Description Section"/>

<title>Injury Incident Description Section</title>

<text>

<paragraph>Injury cause: Assault by unspecified firearm discharge</paragraph>

<paragraph>Injury Mechanism: Penetrating</paragraph>

<paragraph>Location of patient in vehicle: Front seat-left side (or motorcycle driver)</paragraph>

<paragraph>Safety equipment: Lap belt without shoulder belt</paragraph>

<paragraph>Airbag deployment: No airbag deployed</paragraph>

</text>

<entry>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.1133883.17.3.10.1.50"/>

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<code code="69543-7" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Injury Cause"/>

<value xsi:type="CD" code="X.95.9" displayName="Assault by unspecified firearm discharge" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10 CM" />

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</entry>

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<observation classCode="OBS" moodCode="EVN">

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<code code="67494-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Injury Mechanism"/>

<value xsi:type="CD" code="LA17336-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Penetrating"/>

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<observation classCode="OBS" moodCode="EVN">

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<code code="67498-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Location of patient in vehicle"/>

<value xsi:type="CD" code="LA17361-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Front seat-left side (or motorcycle driver)"/>

</observation>

</entry>

<entry>

<observation classCode="OBS" moodCode="EVN">

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<id root="2.16.840.1.113883.19.4" extension="1687478573"/>

<code code="67499-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Safety equipment"/>

<value xsi:type="CD" code="LA17380-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Lap belt without shoulder

belt"/>

</observation>

</entry>

<entry>

<observation classCode="OBS" moodCode="EVN">

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<id root="2.16.840.1.113883.19.4" extension="378856925"/>

<code code="67500-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Airbag deployment"/>

<value xsi:type="CD" code="LA17387-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="No airbag deployed"/>

</observation>

</entry>

</section>

</component>

</structuredBody>

</component>

</ClinicalDocument>

### References

* CDA: [*Clinical Document Architecture 2.1*](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=515)
* Extensible Markup Language (XML): [*www.w3.org/XML*](http://www.w3.org/XML).
* FDA Routes of Administration: [*Food and Drug Administration Routes of Administration*](https://www.fda.gov/drugs/data-standards-manual-monographs/route-administration)
* LOINC®: [*Logical Observation Identifiers Names and Codes, Regenstrief Institute.*](http://www.regenstrief.org/loinc)
* NEMSIS (National Emergency Medical Services Information System Data Dictionary, version 3.5: Available at

[*NEMSIS.org*](http://www.NEMSIS.org/)

* Race and Ethnicity

OMB race categories can be found in [*VSAC*](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion)or in the [*US Core FHIR*](http://hl7.org/fhir/us/core/ValueSet/omb-race-category)specification Detailed races can be found in [*VSAC*](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion)or in the [*US Core FHIR*](http://hl7.org/fhir/us/core/ValueSet/detailed-race)specification

OMB ethnicity categories can be found in [*VSAC*](https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion)or in the [*US Core FHIR*](http://hl7.org/fhir/us/core/ValueSet/omb-ethnicity-category)specification

Detailed ethnicities can be found in [*VSAC*](https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion)or in the [*US Core FHIR*](http://hl7.org/fhir/us/core/ValueSet/detailed-ethnicity)specification

* SNOMED CT: [*SNOMED CT®*](https://www.snomed.org/): SNOMED Clinical Terms SNOMED International Organization.