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EMERGENCY MEDICAL SERVICES DATA SYSTEM STANDARDS



Revised 06/30/2010
Version # 1.1.2
EMSA #164
(with coding for field values)

Prepared By:

Document Owner(s)	Project/Organization Role
EMS Data Committee	
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Project Closure Report Version Control:

Version	Date	Author	Change Description
1.1.0	06/30/2010	EMS Data Committee	Created document.
1.1.1	3/29/2010	Phillip Leach	Element C01_01
1.1.2	6/30/2010	Phillip Leach	Element E09_01, E18_03, E19_03

EMERGENCY MEDICAL SERVICES DATA SYSTEM STANDARDS

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July 13, 2010

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Revision History

5/26/2009 Changed C01_04 to multiple entry

8/25/2009 Changed C01_03 adding integer values for Incident Area responses.

- Changed C01_05 from integer to string.
 Changed values in E09_15 (duplicates)
 Changed values in E09_16 (duplicates)
- 8/26/2009 Corrected a Typo in E09_16 – Changed variable 1800 Fever to 1801 Fever.
- 9/15/2008 Corrected Typo in E08_06 – Changed values for Yes and No to correspond to all yes/no choices in the database.
 Changed E10_08 – Changed XSD Domain to SafetyFactors.
 Changed E1106 Any Return of Spontaneous Circulation – Added variable 2380 No.
 Changed E18_03 – Changed variable 8818 Verapamil to 8820 Verapamil.
 Changed E19_03 Procedure – Changed variable 2244 Bleeding control to 93.055 Bleeding Control.
 Changed E19_03 Procedure – Changed variable 9999 Preexisting Devices to 8905 Bleeding Control.
- 11/2/2009 Added missing variables in E10_08 as follows:
 2175 - Eye Protection
 2185 - Lap Belt
 2190 - Other
 2200 - Protective Clothing
 2205 - Protective Non-Clothing Gear
- 03/22/2010 Changed C01_01 LEMSA Identifier to be compatible with the LEMSA number in the CEMSIS Trauma database.
- 07/16/ 2010 Version number change 1.1.2
- 07/16/ 2010 C01_03 Changed 9001 Urban, 9002 Suburban, 9003 Rural to match XSD
- 07/16/ 2010 D06_03 Changed Data Format from Single to Multiple-choice
- 07/16/ 2010 E08_06 Changed -1 to 1
- 07/16/ 2010 E09_01 Picklist removed. Additional Information section changed to read 'List created from Procedures (NEMSIS version 2.2.1 E10_03) and Medications (NEMSIS version 2.2.1 E18_03)
- 07/16/ 2010 E10_01 Added missing variables
 9560 Firearm assault
 9570 Firearm self inflicted

07/16/ 2010 E14_16 Field values changes to read
For all age groups: 1 = None,
For all age group: 2 = Persistent cry, grunts or non-specified words
For all age groups: 3 = Inappropriate cry, cries and/or screams, or inappropriate words
For all age groups: 4 = Cries, inconsolable, inappropriate words, or confused conversation or speech
For all age groups: 5 = Smiles, coos, cries appropriately, appropriate words, or oriented and appropriate speech

07/16/ 2010 E14_17 Field values changes to read
For all age groups: 1 = None
For all age groups: 2 = Extensor posturing in response to painful stimulation
For all age groups: 3 = Flexor posturing in response to painful stimulation
For all age groups: 4 = General withdrawal in response to painful stimulation for patients up to 5 years and General response to painful stimulation for patients greater than 5 years
For all age groups: 5 = Localization of painful stimulation
For all age groups: 6 = Spontaneous for patients up to 5 years and Obeys commands with appropriate motor responses for patients greater than 5 years.

07/16/ 2010 E18_03 Updated to match the XSD, Additional Information reads List created from Medications (NEMSIS version 2.2.1 D04_06)

07/16/ 2010 E19_03 Updated to match the XSD, Additional information updated to read 'List created from Procedures (NEMSIS version 2.2.1 D04_04)

Added to field Value:

96.031 Airway- Esophageal airway*
8765 Airway- Oxygen by mask* (96.053)
8767 Airway- Oxygen by cannula* (96.010)
96.701 Airway-Ventilator with PEEP*
89.610 Arterial Line Maintenance*
89.700 Assessment-Adult*
89.701 Assessment-Pediatric*
99.601 CPR by External Automated Device*
89.391 Capnography*
86.280 Decontamination*
99.625 Defibrillation-Placement for Monitoring/Analysis*

96.032 Esophageal/tracheal airway*
100.200 Extrication*
99.290 Injections-SQ/IM*
8755* Monitor and adjust IV solutions containing potassium
89.590 Orthostatic Blood Pressure Measurement*
89.702 Pain Measurement*
99.604 Precordial thump* (8900)
9999 Pre-existing devices* (8905)
99.841 Restraints-Pharmacological
89.703 Temperature Measurement
89.704 Thrombolytic Screen
89.620 Venous Access-Central Line Maintenance
39.997 Venous Access-Discontinue
38.993 Venous Access-External Jugular Line
38.994 venous Access-Femoral Line

08/16/2010 Removed D06_03

08/16/2010 Corrected D01_19 Typo from D01-19

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INTRODUCTION

In 1997, at the request of the EMS Authority's interim director and under the guidance of the California Commission on Emergency Medical Services and the EMS Authority, California's EMS community embarked upon an aggressive and unprecedented statewide EMS planning process that culminated in the development of a first-ever State EMS Plan. EMS constituency groups joined the EMS Authority in ensuring the success of this effort.

EMS constituents as well as experts from the National Highway Transportation Safety Administration (NHTSA) identified the importance of a statewide EMS data system and the System Evaluation and Improvement Committee was formed. The data set and quality indicators required a system that would house the data. To meet the need for the creation of a statewide EMS data system, the EMS Authority sought and obtained grant funding from the California Office of Traffic Safety (OTS).

The California Emergency Medical Services Information System (CEMSIS) was designed by the EMS Authority to house and analyze data collected by the Local EMS agencies (LEMSA's). The CEMSIS will serve as a tool for LEMSAs and EMS providers to compare their services to those provided by other LEMSAs and providers for administrative and continual quality improvement efforts. The objective of the project was to create a statewide database of EMS-based patient information and to then link that data whenever possible to data from other systems such as hospital discharge and emergency department data, to create a picture of the EMS care continuum and, ultimately, a picture of the emergency response system. The Web-based reporting system for CEMSIS was demonstrated at an EMS conference in December 2002 using scrambled EMS data.

The current EMS Data Committee is charged with the implementation of the CEMSIS system and the implementation of the developed Quality Indicators. With the release in 2004 of the NHTSA draft of a proposed National Emergency Medical Services Information System (NEMSIS) the committee expanded its scope to ensure that the needs for national data would be met by CEMSIS. In early 2005 the Mountain Valley EMS Agency operating under a Preventive Health and Safety block grant undertook the comparison of CEMSIS and NEMSIS. This document and the information herein are largely the result of this committee's work.

The CEMSIS will provide local agencies with the data and comparative analysis tools they need to assess and improve the quality of their EMS system, including dispatch, patient care, and transport. The processing of information at the state level in the CEMSIS will be for use in Strategic Planning and system evaluation.

The creation and implementation of the (CEMSIS) provides a quality improvement tool consisting of:

- A statewide database of prehospital care data;
- The establishment and maintenance of a core data set for California EMS that is based on the current standard data set (NEMSIS);
- The establishment of submission timelines for the provision of EMS data to the EMS Authority;
- A data warehouse for matching EMS prehospital data with other state and national databases (e.g., Emergency Department and Discharge data from the Office of Statewide Health Planning and Development, and death data from the Center for Vital Statistics of the Department of Health Services);
- The ability to share data among EMS provider participants;
- The ability to share data with other state contributors;
- The ability to calculate medical quality indicators based on the data elements collected for use in continual improvement of the delivery of prehospital care;
- The ability to calculate structural indicators and general statistics for use in administering EMS programs at all levels to support continuous quality improvement;
- A mechanism to formally link the data needs and quality improvement goals of the EMS Authority, LEMSAs and EMS Providers (including Emergency Departments and specialty care centers) to minimize duplication and redundancy;
- Research data for the promotion of injury prevention, public information, utilization of Automatic External Defibrillators (AEDs) and educational activities including citizen first aid and CPR programs as well as appropriate EMS access;
- Information that will formally identify the instances of multiple EMS service providers (e.g., first responder followed by transport provider) and the need for a common patient care record process.

Under the “discussion” heading for each data element is a rating of Level I, II, or III. These levels provide additional information to providers as to which data elements the provider may commence collecting, based on their current data collection systems. With time and resources the goal is for all data collection to be at Level III. Below are the descriptors for each level:

- *Level I - This level is for providers who are currently on a completely paper based system. This group is planning to follow the electronic system in the future and will start collecting the CEMSIS data elements identified as “Level I”. The data elements listed are the “core minimum” and it is expected that all providers should be able to submit these items from their current patient care report form.*

- *Level II - Entities at this level include all the data elements listed above, plus those marked "Level II" on the response to comment period document. These providers, as they convert to an electronic system or revise their report format, should include these additional items.*
- *Level III -Incorporates all items listed in the "Emergency Medical Services Data System Standards" (CEMSIS) #164. This is the top level and is for providers utilizing a totally electronic system.*

INSTRUCTIONS



Title Name of the Data Element
Level I, II or III (Reporting Level Ranking)

Data Format The format should be reviewed by IT staff

Definition Description of what the data element will contain

Technical Information - This section should be reviewed by IT staff. It is recommended that the IT staff go to www.nemsis.org and obtain technical information from the website.

XSD Data Type	XSD Domain (Simple Type)
Multiple Entry Configuration	Accepts Null Value
Required in XSD	

Field Values The values or code set (variables) associated with the data element

Data Collector Description of who will be collecting the data

Content Describes the data element including some technical requirements

Discussion Any additional information that may be needed to explain the data element and how it may be utilized

CEMSIS to NEMSIS Comparison Provides explanation of whether this data element is exactly like the NEMSIS element or has been modified

Additional Information:

NEMSIS stands for the National Emergency Medical Services Information System. NEMSIS is the national repository that will be used to potentially store EMS data from every state in the nation. CEMSIS stands for the California Emergency Medical Services Information System and will serve as the California repository for EMS data. CEMSIS is designed to interact with NEMSIS.

The EMS data elements are a subset of information describing a complete EMS event. This includes information which is considered important from an EMS system, EMS personnel, and an EMS patient's perspective. The data elements within the EMS dataset provide documentation of the system performance and clinical care. Many data elements are a component of an EMS Medical Record, and the majority of the remaining data elements are important for quality management and performance improvement initiatives.

The EMS data elements also include information associated with EMS billing and reimbursement. This information is typically completed by EMS personnel for each patient encounter, although some of the information can be obtained electronically from the dispatch center, past EMS medical records, provider billing services or medical devices.

The demographic data elements are a subset of information describing each EMS agency, EMS personnel, and important system information that is needed to generate reports at the local, state, and national level.

This information is typically completed and reviewed once per year and updated as changes for an EMS system or for any EMS personnel occur. This information is not collected with each patient encounter, but is electronically attached to each patient encounter to make the data more useful and allow more efficient documentation by EMS personnel.



Minimum Elements

LEMSA IDENTIFIER

Level I (Providers currently on a paper based system)

C01_01

Data Format [combo] single choice

Definition

The unique identifier for the LEMSA that is responsible for the EMS incident.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type)	<i>LEMSAIdentifier</i>
Multiple Entry Configuration	<i>No</i>	Accepts Null Value <i>No</i>
Required in XSD		

Field Values

LEMSA IDENTIFIER CODES

Alameda	01
Contra Costa	07
El Dorado	09
Imperial	13
Kern	15
Los Angeles	19
Marin	21
Merced	24
Monterey	27
Orange	30
Riverside	33
Sacramento	34
San Benito	35
San Diego	37
San Francisco	38
San Joaquin	39
San Luis Obispo	40
San Mateo	41
Santa Barbara	42
Santa Clara	43
Santa Cruz	44
Solano	48
Tuolumne	55
Ventura	56
Central California	61
Mountain-Valley	60
North Coast	63
Northern California	64
Inland Counties	62
Sierra-Sacramento Valley	65
Coastal Valleys	66

Data Collector

This will be collected by the LEMSA when the document is received from the provider. This is a LEMSA only issue and will be autofilled.

Content

This identifier must be unique within California for the Local Emergency Medical Services Agency (LEMSA). In single-county LEMSAs, it should be the standard alphanumeric California County Code. Multi-county LEMSAs will be assigned a code. This element is considered to be a technical core element (necessary for submission of record.)

Discussion

This identifier will be used to link information for a particular LEMSA to create a LEMSA profile.

CEMSIS to NEMSIS Comparison

No match

PSAP IDENTIFIER

Level III (Providers Utilizing a totally electronic system)



Data Format [text]

Definition

The unique identifier for the primary Public Safety Answering Point that answered the 9-1-1 (or other) calls for the EMS Incident.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple) <i>PSAPIdentifier</i>
Multiple Entry <i>No</i>	Accepts Null <i>No</i>
Required in XSD	

Field Values

A unique value; no variable list is possible.

Additional Information

This element captures the identifier for the PSAP that received the request.

Data Collector

911 or Dispatch Center and electronically transmitted to the EMS provider agency

Content

This identifier should be the unique 4-character PSAP ID used by the FCC (Federal Communications Commission), if available in the LEMSA data. If the LEMSA database does not contain the FCC PSAP ID, another identifier or mechanism must be used.

Discussion

The PSAP Identifier will be used with the LEMSA Identifier and the Incident Identifier to uniquely identify the EMS incident over time. The identifier code used by the LEMSA shall be provided to the EMS Authority with PSAP information including name, location, contact information and participating EMS provider agencies.

CEMSIS to NEMSIS Comparison

No match

INCIDENT AREA Revised 8/25/2009

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

Description of the provider's incident location.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple)	<i>IncidentArea</i>
Multiple Entry	<i>No</i>	Accepts Null	<i>No</i>
Required in XSD			

Field Values

- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **9001** Urban
- **9002** Suburban
- **9003** Rural
- **9004** Wilderness

Additional Information

The variables for this element are specific to CEMSIS

Data Collector

LEMSA auto fill based on zip code.

Content

No historical content for this element. Definitions based on EMSA #101 EMS System Standards and Guidelines.

Discussion

This element may be auto-filled based on zip code. The information can come from mapping systems which allow you to calculate the population per square mile or census tract. California is the only state in which the entire state is covered by census tracts. In other states only the metropolitan and urban areas are broken down to census tracts.

Rural - all census places with a population density of 7 to 50 persons per square mile; or census tracts or enumeration districts without census tracts which have a population density of 7 to 50 persons per square mile.

Urban - all census places with a population density of 101 to 500 persons per square mile; or census tracts and enumeration districts without census tracts which have a population density of 101 to 500 persons or more per square mile.

Suburban - All census places with a population density of 51 to 100 persons per square mile; or census tracts or enumeration districts without census tracts which have a population density of 51 to 100 persons per square mile.

Wilderness - census tracts or enumeration districts without census tracts which have a population of less than seven persons per square mile.

CEMSIS to NEMSIS Comparison

No match.

CONTRIBUTING FACTORS Revised 5/26/2009

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

Factors that may have contributed to the seriousness of the injury and influenced triage decisions

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple)	<i>ContributingFactors</i>
Multiple Entry Yes	Accepts Null No	
Required in XSD		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 30 Ejection from automobile
- 35 Death in same passenger compartment
- 40 Extrication time >20 minutes
- 45 Falls >20 feet (pediatric patients > 10 feet or 2-3 x height of the child)
- 50 Rollover
- 55 Initial speed from auto crash >40 mph
- 60 Major auto deformity >20 inches
- 65 Intrusion into passenger compartment >12 inches
- 70 Auto-pedestrian/auto-bicycle injury with significant (> 20 mph) impact
- 75 Pedestrian thrown or run over
- 80 Motorcycle crash >20 mph or with (separation of rider from bike)
- 85 Age <5 or >55
- 90 Cardiac disease, respiratory disease
- 95 Insulin-dependent diabetes, cirrhosis, or morbid obesity
- 100 Pregnancy (> 20 weeks)
- 105 Immunosuppressed
- 110 Bleeding disorder or patient on anticoagulants
- 115 End stage renal disease requiring dialysis
- 120 Time sensitive extremity injury
- 125 Vehicle telemetry data consistent with increased risk of injury

Additional Information

Complete only if Possible Injury (E09_04) is "Yes"

Data Collector

EMS personnel

Content

No historical content for this element

Discussion

Adopted from “Resources for Optimal Care of the Injured Patient: 2006 Committee on Trauma, American College of Surgeons.

CEMSIS to NEMSIS Comparison

No match

DIVERSION **Revised 8/25/2009**
Level II (Providers converting to an electronic system)

C01_05

Data Format [text]

Definition

The intended destination for a patient prior to diversion.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple)	<i>Diversion</i>
Multiple Entry	<i>No</i>	Accepts Null	<i>No</i>
Required in XSD	yes	Minimum Constraint	2
		Maximum Constraint	30

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Complete only if Reason for Choosing Destination (E20_16) is “Diversion”.

Data Collector

EMS personnel

Content

This identifier must be unique within California and should be the HIPAA NPI (National Provider Identifier).

Discussion

Local EMS agencies must provide their codes to the EMS Authority. Many providers have multiple codes which appear to be for the same service so the specific codes need to be agreed upon locally.

CEMSIS to NEMSIS Comparison

No match



Minimum Elements

**Elements adopted from
NEMSIS**

EMS AGENCY NUMBER

Level I (Providers currently on a paper based system)?

Data Format [text]

Definition

The state-assigned provider number of the responding agency

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>EMSAgencyTimeZone</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes		

Field Values

- **5900** GMT-11:00 Midway Island, Samoa
- **5920** GMT-09:00 Alaska
- **5910** GMT-10:00 Hawaii
- **5930** GMT-08:00 Pacific Time
- **5940** GMT-07:00 Mountain Time
- **5950** GMT-06:00 Central Time
- **5960** GMT-05:00 Eastern Time
- **5970** GMT-04:00 Atlantic Time

Discussion

Allows data to be tracked in comparison to other systems and times to better correlate in any analysis. All dates/times are to be transmitted using Greenwich meantime. The time zone of the provider agency must be known to use these times appropriately.

Data Collector

To be autofilled by the Emergency Medical Services Authority.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

EMS AGENCY TIME ZONE

Level I (Providers currently on a paper based system)

D01_19

Data Format [text]

Definition

The time zone for the EMS Agency

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>EMSAgencyTimeZone</i>
Multiple Entry Configuration No	Accepts Null No
Required in XSD Yes	

Field Values

- **5900** GMT-11:00 Midway Island, Samoa
- **5920** GMT-09:00 Alaska
- **5910** GMT-10:00 Hawaii
- **5930** GMT-08:00 Pacific Time
- **5940** GMT-07:00 Mountain Time
- **5950** GMT-06:00 Central Time
- **5960** GMT-05:00 Eastern Time
- **5970** GMT-04:00 Atlantic Time

Discussion

Allows data to be tracked in comparison to other systems and times to better correlate in any analysis. All dates/times are to be transmitted using Greenwich meantime. The time zone of the provider agency must be known to use these times appropriately.

Data Collector

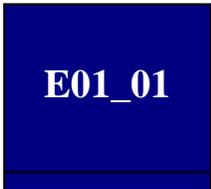
To be autofilled by the Emergency Medical Services Authority.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PATIENT CARE REPORT NUMBER

Level I (Providers currently on a paper based system)



Data Format [text]

Definition

The unique number automatically assigned by the EMS provider agency or local EMS agency for each patient care report (PCR). This is a unique number to the EMS agency.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>PatientCareReportNumber</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes	Minimum Constraint	3
		Maximum Constraint	32

Field Values

A unique value; no variable list is possible.

Additional Information

Not nullable. A unique value must be provided to create a unique record ID within a database

Data Collector

EMS provider agency or may be electronically provided through the 911 or dispatch center

Content

This identifier must be unique within the LEMSA for each EMS patient for a given EMS provider for a given EMS incident.

Discussion

The PCR number will be used with the Incident Number (E02_02) and the EMS Provider Agency Number (E02_01) to uniquely identify the record of care provided to a patient by the crew members from a particular EMS provider agency for a particular EMS incident.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

EMS PROVIDER AGENCY NUMBER

Level I (Providers currently on a paper based system)

E02_01

Data Format [text]

Definition

The state-assigned provider number of the responding agency

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>EMSAgencyNumber</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes	Minimum Constraint	3
		Maximum Constraint	15

Field Values

A unique value; no variable list is possible.

Additional Information

- Same as EMS Agency Number (D01_01), an elective NEMSIS data element.
- Not nullable. A unique value must be provided to create a unique record ID within a database

Data Collector

Collected by the EMS provider agency or auto-generated by the EMS provider agency specific software.

Content

This identifier must be unique within California, and should be the HIPAA NPI (National Provider Identifier), FDID or other standard number indicator.

Discussion

This code must uniquely identify the EMS response agency (i.e., EMS provider organization) that provided one or more units in response to an EMS incident.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT NUMBER

Level I (Providers currently on a paper based system)

E02_02

Data Format [text]

Definition

The incident number assigned by the 911 Dispatch System

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>IncidentNumber</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2
		Maximum Constraint	15

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- - 5 Not Available
- Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

This identifier, when combined with the PSAP Identifier, must be unique within the Local Emergency Medical Services Agency (LEMSA) for an EMS incident over time (i.e., it must provide uniqueness in the CEMSIS database).

Discussion

The Incident Identifier will be used with the PSAP Identifier (C01_02) and the LEMSAs Identifier (C01_01) to uniquely identify the EMS incident within California. This identifier may be valuable for linking EMS data with other data related to the incident.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF SERVICE REQUESTED

Level I (Providers currently on a paper based system)

E02_04

Data Format [combo] single-choice

Definition

The type of service or category of service requested of the EMS service responding for this specific EMS incident.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TypeOfServiceRequested</i>	
Multiple Entry Configuration	No	Accepts Null	No	
Required in XSD	Yes			

Field Values

- **30** 911 Response (Scene)
- **35** Intercept
- **40** Interfacility Transfer
- **45** Medical Transport
- **50** Mutual Aid
- **55** Standby

Data Collector

EMS provider agency or may be electronically provided through the 9-1-1 or dispatch center

Content

A single character code for the type of EMS provided.

Discussion

This code identifies the type of service provided.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

Specific Definitions for each of the variables.

We have intentionally not defined the variables for Type of Service beyond what is documented. The intent of the variables is as follows:

- 911 Response = any unscheduled EMS response to a scene originating from 911 or the dispatch center
- Intercept = a response where an EMS vehicle or unit is meeting up with or intercepting with another EMS vehicle or unit already caring for a patient to either increase the level of service or resources associated with the patient care or service delivery
- Interfacility Transfer = a response or service which is involved in the movement of a patient between two healthcare facilities; this is typically two hospitals.
- Medical Transport = a response or service based on a schedule request. An example would be between a nursing home and a physician's office.
- Mutual Aid = a response or service request from an EMS agency outside of the service area

- Standby = a response or service request not associated with a specific patient scenario but associated with a high-risk event. This could be a public event, structure fire, etc.

PRIMARY ROLE OF THE UNIT

Level III (Providers utilizing a totally electronic system)

E02_05

Data Format [combo] single-choice

Definition

The primary role of the EMS service which was requested for this specific EMS incident.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>PrimaryRollOfTheUnit</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes		

Field Values

- **60** Non-Transport
- **65** Rescue
- **70** Supervisor
- **75** Transport

Data Collector

EMS provider agency or may be electronically provided through the 9-1-1 or dispatch center

Content

No historical content for this element.

Discussion

There are no discussion points related to this element. This data element is a component of the EMS Medical Record: Patient Care Report. It also allows data to be sorted by the role of the responder and provides descriptive data on EMS call volume and service provided.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF DISPATCH DELAY

Level III (Providers utilizing a totally electronic system)

Data Format [combo] multiple-choice

Definition

The dispatch delays, if any, associated with the dispatch of the EMS unit to the patient encounter

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TypeOfDispatchDelay</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **80** Caller (Uncooperative)
- **85** High Call Volume
- **90** Language Barrier
- **95** Location (Inability to Obtain)
- **100** No Units Available
- **115** Scene Safety (Not Secure for EMS)
- **120** Technical Failure (Computer, Phone etc.)
- **105** None
- **110** Other

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF RESPONSE DELAY

Level III (Providers utilizing a totally electronic system)

E02_07

Data Format [combo] multiple-choice

Definition

The response delays, if any, of the unit associated with the patient encounter

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>TypeOfResponseDelay</i>
Multiple Entry Configuration Yes	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **125** Crowd
- **130** Directions
- **135** Distance
- **140** Diversion
- **145** HazMat
- **150** None
- **155** Other
- **160** Safety
- **165** Staff Delay
- **170** Traffic
- **175** Vehicle Crash
- **180** Vehicle Failure
- **185** Weather

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF SCENE DELAY

Level II (Providers converting to an electronic system)

Data Format [combo] multiple-choice

Definition

The scene delays, if any, of the unit associated with the patient encounter

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TypeOfSceneDelay</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **190** Crowd
- **195** Directions
- **200** Distance
- **205** Diversion
- **210** Extrication >20 min.
- **215** HazMat
- **220** Language Barrier
- **225** None
- **230** Other
- **235** Safety
- **240** Staff Delay
- **245** Traffic
- **250** Vehicle Crash
- **255** Vehicle Failure
- **260** Weather

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF TRANSPORT DELAY

Level II (Providers converting to an electronic system)

Data Format [combo] multiple-choice

Definition

The transport delays, if any, of the unit associated with the patient encounter

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TypeOfTransportDelay</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **265** Crowd
- **270** Directions
- **275** Distance
- **280** Diversion
- **285** HazMat
- **290** None
- **295** Other
- **300** Safety
- **305** Staff Delay
- **310** Traffic
- **315** Vehicle Crash
- **320** Vehicle Failure
- **325** Weather

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF TURN-AROUND DELAY

Level II (Providers converting to an electronic system)

Data Format [combo] multiple-choice

Definition

The turn-around delays, if any, associated with the EMS unit associated with the patient encounter

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TypeOfTurnAroundDelay</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD Yes			

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **330** Clean-up
- **335** Decontamination
- **340** Documentation
- **345** ED Overcrowding
- **350** Equipment Failure
- **355** Equipment Replenishment
- **360** None
- **365** Other
- **370** Staff Delay
- **375** Vehicle Failure

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

EMS UNIT IDENTIFIER (RADIO NUMBER) Level I (Providers currently on a paper based system)

E02_12

Data Format [combo] single-choice

Definition

The EMS unit number used to dispatch and communicate with the unit. This may be the same as the EMS Unit/Vehicle Number in many agencies.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>EMSUnitCallSign</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes	Minimum Constraint	2
		Maximum Constraint	15

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Not nullable. A unique value must be provided to create a unique record ID within a database

Data Collector

EMS provider agency or may be electronically provided through the 911 or dispatch center

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RESPONSE MODE TO SCENE

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

Indication whether or not lights and/or sirens were used on the vehicle on the way to the scene

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>ResponseModeToScene</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes		

Field Values

- **380** Initial Lights and Sirens, Downgraded to No Lights or Sirens
- **385** Initial No Lights or Sirens, Upgraded to Lights and Sirens
- **390** Lights and Sirens
- **395** No Lights or Sirens

Data Collector

EMS provider agency or may be electronically provided through the 911 or dispatch center

Content

The code that identifies the use of lights and/or sirens in route to the incident scene.

Discussion

This field provides the data to determine the frequency with which EMS vehicles are using lights and/or sirens during response to the EMS incident scene.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

COMPLAINT REPORTED BY DISPATCH

Level III (Providers utilizing a totally electronic system)

Data Format [combo] single-choice

Definition

The complaint dispatch reported to the responding unit.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>ComplaintReportedByDispatch</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 400 Abdominal Pain
- 405 Allergies
- 410 Animal Bite
- 415 Assault
- 420 Back Pain
- 425 Breathing Problem
- 430 Burns
- 435 CO Poisoning/Hazmat
- 440 Cardiac Arrest
- 445 Chest Pain
- 450 Choking
- 455 Convulsions/Seizure
- 460 Diabetic Problem
- 465 Drowning
- 470 Electrocutation
- 475 Eye Problem
- 480 Fall Victim
- 485 Headache
- 490 Heart Problems
- 495 Heat/Cold Exposure
- 500 Hemorrhage/Laceration
- 505 Industrial Accident/Inaccessible Incident/Other Entrapments (non-vehicle)
- 510 Ingestion/Poisoning
- 565 MCI (Mass Casualty Incident)
- 515 Pregnancy/Childbirth
- 520 Psychiatric Problem
- 525 Sick Person
- 530 Stab/Gunshot Wound
- 535 Stroke/CVA

- **540** Traffic Accident
- **545** Traumatic Injury
- **550** Unconscious/Fainting
- **555** Unknown Problem Person Down
- **560** Transfer/Interfacility/Palliative Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS agency

Content

No historical content for this element.

Discussion

- A component of the EMS Medical Record: Patient Care Report
- Allows data to be sorted by the Dispatch Complaint
- Allows data to describe Patient Complaint as reported by Dispatch

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

EMD PERFORMED

Level III (Providers utilizing a totally electronic system)

Data Format [combo] single-choice

Definition

Indication of whether EMD was performed for this EMS event.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>EMDPerformed</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **0** No
- **570** Yes, With Pre-Arrival Instructions
- **575** Yes, Without Pre-Arrival Instructions

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

No historical content for this element.

Discussion

EMD as defined in the EMS Authority's document "Emergency Medical Services Dispatch Program Guidelines" EMSA #132, states: Emergency Medical Dispatch (EMD) shall mean the reception, evaluation, processing and provision of dispatch life support; management of requests for emergency medical assistance; and participation in ongoing evaluation and improvement of the emergency medical dispatch process."

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CREW MEMBER LEVEL

Level III (Providers utilizing a totally electronic system)

E04_03

Data Format [combo] single-choice

Definition

The functioning level of the crew member during this EMS patient encounter.

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *CrewMemberLevel*

Multiple Entry Configuration Yes, via structure **Accepts Null** Yes

Required in XSD No

XSD Structure: E04_01, E04_02, E04_03 are all members of the E04 Unit Personnel Information structure

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **6120** First Responder
- **6090** EMT Basic (EMT-I)
- **6100** EMT Intermediate (EMT-II)
- **6110** EMT Paramedic (EMT-P)
- **6111** Nurse
- **640** Other Healthcare Professional
- **645** Other Non-Healthcare Professional
- **6112** Physician
- **6115** Public Safety (including volunteer)
- **635** Student

Additional Information

Could be auto-filled using Crew Member ID (E04_01) and connecting to State/ Licensure ID Number (D07_02) to obtain Personnel's Highest Level of Certification/ Licensure for Agency (D07_05). Note: These are elective NEMSIS data elements.

Data Collector

EMS personnel

Content

This data element will be used at the state level in computing general statistics (e.g., the percentage of responses involving each level). This element is connected with data element D06_03 (Vehicle Type).

Discussion

This data element is used to determine the level of care that was available on the EMS responder team. This data element and the Vehicle Type will identify the type of EMS capability that was available.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

PSAP CALL DATE/TIME

Level III (Providers utilizing a totally electronic system)

E05_02

Data Format [date/time]

Definition

The date/time the phone rings (911 call to public safety answering point or other designated entity) requesting EMS services.

Technical Information

XSD Data Type <i>xs:dateTime</i>	XSD Domain (Simple Type) <i>DateTime</i>
Multiple Entry Configuration No	Accepts Null Yes, but null value is blank or empty
Required in XSD Yes	Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

No historical content for this element.

Discussion

- A component of the EMS Medical Record: Patient Care Report
- Allows data to be sorted based on Date and Time
- Allows data to describe EMS use by Date and Time, Day of the Week, etc.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

DISPATCH NOTIFIED DATE/TIME

Level II (Providers converting to an electronic system)

E05_03

Data Format [date/time]

Definition

The date/time dispatch was notified by the 911 call taker (if a separate entity)

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i>
Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty
Required in XSD No Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the incident was first reported to the EMS Response Agency dispatcher. Midnight is '000000' and begins the day.

Discussion

Ideally, this will be recorded automatically in Pacific Standard or Daylight Time by a CAD or AVL system using 'universal time' from a GPS receiver. It should be obtained electronically, if possible, from the PSAP or secondary answering point.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT NOTIFIED BY DISPATCH DATE/TIME

Level I (Providers currently on a paper based system)

Data Format [date/time]

Definition

The date the responding unit was notified by dispatch

Technical Information

XSD Data Type	<i>xs:dateTime</i>	XSD Domain (Simple Type)	<i>DateTime</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	Yes	Minimum Constraint	1,990
		Maximum Constraint	2,030

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

- Not nullable. A unique value must be provided to create a unique record ID within a database

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the incident was first reported to the EMS response unit. Midnight is '000000' and begins the day.

Discussion

Ideally, this will be recorded automatically in Pacific Standard or Daylight Time by a CAD or AVL system using 'universal time' from a GPS receiver. It should be obtained electronically, if possible, from the secondary answering point.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT EN ROUTE DATE/TIME

Level I (Providers currently on a paper based system)

Data Format [date/time]

Definition

The date/time the unit responded; that is, the time the vehicle started moving

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i> Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty Required in XSD Yes Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the EMS response unit began to move to the incident scene. Midnight is '000000' and begins the day.

Discussion

Ideally, this will be recorded automatically in Pacific Standard or Daylight Time by a CAD or AVL system using 'universal time' from a GPS receiver. It should be obtained electronically, if possible, from the secondary answering point.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT ARRIVED ON SCENE DATE/TIME

Level I (Providers currently on a paper based system)

Data Format [date/time]

Definition

The date/time the responding unit arrived on the scene; that is, the time the vehicle stopped moving

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i> Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty Required in XSD Yes Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the EMS response unit stopped moving (i.e., 'wheels stopped rolling' at the last place at the scene before patient assessment began). Midnight is '000000' and begins the day.

Discussion

Ideally, this will be recorded automatically in Pacific Standard or Daylight Time by a CAD or AVL system using 'coordinated universal time' from a GPS receiver. It should be obtained electronically, if possible, from the secondary answering point.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ARRIVED AT PATIENT DATE/TIME

Level II (Providers converting to an electronic system)

Data Format [date/time]

Definition

The date/time the responding unit arrived at the patient's side

Technical Information

XSD Data Type	<i>xs:dateTime</i>	XSD Domain (Simple Type)	<i>DateTime</i>
Multiple Entry Configuration	No	Accepts Null	Yes, but null value is blank or empty
Required in XSD	Yes	Minimum Constraint	1,990
		Maximum Constraint	2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the first EMS responder arrived at the patient's side and began assessing the patient's condition. Midnight is '000000' and begins the day. Use the default of "00" for seconds when necessary.

Discussion

Ideally, this is the time of arrival at the patient in Pacific Standard or Daylight Time as recorded using 'coordinated universal time' from a GPS receiver in a Personal Digital Assistant or other electronic device. It should be obtained electronically.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT LEFT SCENE DATE/TIME

Level I (Providers currently on a paper based system)

Data Format [date/time]

Definition

The date/time the responding unit left the scene (started moving)

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i> Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty Required in XSD Yes Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the EMS response unit started moving from the scene to its destination (i.e., 'wheels rolling' to the hospital or transfer point). Midnight is '000000' and begins the day.

Discussion

This time should be obtained from Computer Aided Dispatch (CAD) data, if possible. Although an observed time from PCR Data is acceptable for this field, if any 'upstream times' in the EMS response were determined using GPS universal time, it may result in inaccurate data.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PATIENT ARRIVED AT DESTINATION DATE/TIME

Level I (Providers currently on a paper based system)

E05_10

Data Format [date/time]

Definition

The date/time the responding unit arrived with the patient at the destination or transfer point

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i>
Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty
Required in XSD Yes Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the EMS response unit stopped moving at its destination (i.e., 'wheels stopped rolling' at the hospital or transfer point). Midnight is '000000' and begins the day.

Discussion

This time should be obtained from Computer Aided Dispatch (CAD) data, if possible. Although an observed time from PCR Data is acceptable for this field, if any 'upstream times' in the EMS response were determined using GPS universal time, it may result in inaccurate data. Permits calculation of the time period from scene departure to destination arrival.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT BACK IN SERVICE DATE/TIME

Level II (Providers converting to an electronic system)

E05_11

Data Format [date/time]

Definition

The date/time the unit was back in service and available for response (finished with call, but not necessarily back in home location)

Technical Information

XSD Data Type <i>xs:dateTime</i>	XSD Domain (Simple Type) <i>DateTime</i>
Multiple Entry Configuration No	Accepts Null No
Required in XSD Yes	Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS provider agency

Content

The hour, minute, and second that the EMS response unit is ready for the next call

Discussion

This time represents the time when a unit is ready and available to respond to the next request for service.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

UNIT BACK AT HOME LOCATION DATE/TIME

Level III (Providers utilizing a totally electronic system)

E05_13

Data Format [date/time]

Definition

The date/time the responding unit was back in their service area. In agencies who utilize Agency Status Management, home location means the service area as assigned through the agency status management protocol.

Technical Information

XSD Data Type <i>xs:dateTime</i> XSD Domain (Simple Type) <i>DateTime</i> Multiple Entry Configuration No Accepts Null Yes, but null value is blank or empty Required in XSD Yes Minimum Constraint 1,990 Maximum Constraint 2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

9-1-1 or Dispatch Center and electronically or verbally transmitted to the EMS agency

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

E06_01

LAST NAME

Level II (Providers converting to an electronic system)

Data Format [text]

Definition

The patient's last (family) name

Technical Information

XSD Data Type <i>xs:string</i>	XSD Domain (Simple Type) <i>LastName</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD No	Minimum Constraint 2 Maximum Constraint 20
XSD Structure: E06_01, E06_02, and E06_03 are all members of the E06_01_0 Patient Name Structure	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Local policy should dictate how Last Name and First Name should be created if Unknown

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

“Not Known” is used when the patient name is not known.

Discussion

This data element will be **encrypted**, stored separately and removed from the CEMSIS database after probabilistic matching. No patient identifying information will be available from CEMSIS.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PATIENT'S HOME ZIP CODE

Level II (Providers converting to an electronic system)



Data Format [text]

Definition

The patient's home ZIP code of residence

Technical Information

XSD Data Type <i>xs:string</i>	XSD Domain (Simple Type) <i>Zip</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	Minimum Constraint 2 Maximum Constraint 10
XSD Structure: E06_04, E06_05, E06_06, E06_07, E06_08 are all members of the E06_04_0 Patient Address Structure	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Can be stored as a 5 or 9 digit code

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

This field will be coded using the 5 or 9 digit postal zip code.

Discussion

Provides the postal zip code of the patient's residence.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element



PARTIAL SOCIAL SECURITY NUMBER **Level II (Providers converting to an electronic system)**

Data Format [number]

Definition

The patient's partial social security number

Technical Information

XSD Data Type <i>xs:string</i> XSD Domain (Simple Type) <i>SocialSecurityNumber</i> Multiple Entry Configuration No Accepts Null Yes Required in XSD No Minimum Constraint 2 Maximum Constraint 5
--

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

Document the last 5 digits of the patient's Social Security Number (SSN) when it is available.

Discussion

When provided, the SSN will be **encrypted**, stored separately and purged from the CEMSIS database after probabilistic matching. No patient identifying information will be available from the CEMSIS.

CEMSIS to NEMSIS Comparison

The CEMSIS data element is a partial match to NEMSIS v2.2.1 but will allow data transmittal to NEMSIS

GENDER

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

The patient's gender

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>Gender</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **650** Male
- **655** Female

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

The character code will reflect female or male.

Discussion

This data element is valuable for linkage to other files, and permits reporting of epidemiologic information by gender.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RACE

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The patient's race as defined by the OMB (US Office of Management and Budget)

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Race</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **660** American Indian or Alaska Native
- **665** Asian
- **670** Black or African American
- **685** Other Race
- **675** Native Hawaiian or Other Pacific Islander
- **680** White

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ETHNICITY

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The patient's ethnicity as defined by the OMB (US Office of Management and Budget)

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Ethnicity</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **690** Hispanic or Latino
- **695** Not Hispanic or Latino

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

AGE

Level I (Providers currently on a paper based system)

Data Format [number]

Definition

The patient's age (either calculated from date of birth or best approximation)

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	Age
Multiple Entry Configuration	No	Accepts Null	Yes, but null value is blank or empty
Required in XSD	Yes	Minimum Constraint	1
		Maximum Constraint	120
XSD Structure: E06_14 and E06_15 are members of the E06_14_0 Patient's Age Structure			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Could be calculated from Date of Birth (E06_16)

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

Patient's age in years, months, or days.

Discussion

Patient's age is reported in years, months, days or hours. If the patient is < 1 day old the age is reported in hours; if the patient is < 1 month old, the age is reported in days; if the patient is a child that is \geq 1 month old but < 2 years old, the age is reported in months. For patients \geq 2 years old, the age is reported in years.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

AGE UNITS

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

The units which the age is documented in (Hours, Days, Months, Years)

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *AgeUnits*

Multiple Entry Configuration No **Accepts Null** Yes

Required in XSD Yes

XSD Structure: E06_14 and E06_15 are members of the E06_14_0 Patient's Age Structure

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 700 Hours
- 705 Days
- 710 Months
- 715 Years

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

The character will reflect Year, Month, Day, or Hour.

Discussion

Patient's age is reported in years, months, days or hours as follows: If the patient is < one day old, the age is reported in hours; If the patient is a less than one month old infant, the age is reported in days; If the patient is a child that is at ≥ 1 month old but < than 2 years old, the age is reported in months.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

DATE OF BIRTH

Level I (Providers currently on a paper based system)

Data Format [date]

Definition

The patient's date of birth

Technical Information

XSD Data Type	<i>xs:date</i>	XSD Domain (Simple Type)	<i>DateOfBirth</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	No	Minimum Constraint	1,890
		Maximum Constraint	2,030

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

Day, month and year of the patient's birth.

Discussion

The date of birth (DOB) should be from the most reliable source available to the EMS responder (e.g., driver's license, parent of a child, etc). The DOB will be encrypted, stored separately and purged from the CEMSIS database after probabilistic matching. No patient identifying information will be available from the CEMSIS.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PRIMARY METHOD OF PAYMENT

Level II (Providers converting to an electronic system)

E07_01

Data Format [combo] single-choice

Definition

The primary method of payment or type of insurance associated with this EMS encounter

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>PrimaryMethodOfPayment</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **725** Medicaid/Medi-Cal
- **730** Medicare
- **740** Military Insurance/Other Government Insurance
- **735** Not billed (for any reason)
- **720** Private Commercial insurance/Managed Care Organization
- **745** Self Pay
- **750** Worker's Compensation

Data Collector

EMS personnel or electronically through linkage with a pre-existing Patient Care Report or hospital database

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CMS SERVICE LEVEL

Level II (Providers converting to an electronic system)

E07_34

Data Format [combo] single-choice

Definition

The Centers for Medicaid and Medicare Services service level for this EMS encounter.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>CMSServiceLevel</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **990** BLS
- **995** BLS, Emergency
- **1000** ALS, Level 1
- **1005** ALS, Level 1 Emergency
- **1010** ALS, Level 2
- **1015** Paramedic Intercept
- **1020** Specialty Care Transport
- **1025** Fixed Wing (Airplane)
- **1030** Rotary Wing (Helicopter)

Data Collector

EMS personnel unless the EMS Agency has professional billing personnel to provide this function

Content

No historical content for this element.

Discussion

For more information, please see <http://www.cms.hhs.gov/medhcpcsgeninfo/>

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CONDITION CODE NUMBER

Level III (Providers utilizing a totally electronic system)

E07_35

Data Format [combo] multiple-choice

Definition

The condition codes associated with the Center for Medicaid and Medicare Services EMS negotiated rule-making process.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>ConditionCodeNumber</i>		
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes		
Required in XSD	Yes	Minimum Constraint	2	Maximum Constraint	30
XSD Structure: E07_35, E07_36 are members of E07_35_0 Condition Codes Structure					

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **8002** Abdominal Pain (ALS-789.00)
- **8001** Severe Abdominal Pain (ALS-789.00)
- **8003** Abnormal Cardiac Rhythm/Cardiac Dysrhythmia (ALS-427.9)
- **8004** Abnormal Skin Signs (ALS-780.8)
- **8005** Abnormal Vital Signs (ALS-796.4)
- **8062** Advanced Airway Management (ALS-518.81)
- **8066** Airway Control/Positioning Required (BLS-786.09)
- **8034** Alcohol Intoxication or Drug Overdose (BLS-305.0)
- **8035** Severe Alcohol Intoxication (ALS-977.3)
- **8006** Allergic Reaction (ALS- 995.0)
- **8007** Allergic Reaction (BLS-692.9)
- **8016** Altered Level of Consciousness (non- traumatic) (ALS-780.01)
- **8053** Animal Bites/Sting/Envenomation (ALS-989.5)
- **8054** Animal Bites/ Sting/Envenomation (BLS-879.8)
- **8031** Back Pain (non-traumatic possible cardiac or vascular) (ALS-724.5)
- **8032** Back Pain (non- traumatic with neurologic symptoms) (ALS-724.9)
- **8008** Blood Glucose (ALS-790.21)
- **8051** Burns-Major (ALS-949.3)
- **8052** Burns-Minor (BLS-949.2)
- **8011** Cardiac Arrest-Resuscitation in Progress (ALS-427.5)
- **8061** Cardiac/Hemodynamic Monitoring Required (ALS-428.9)
- **8021** Cardiac Symptoms other than Chest Pain (atypical pain) (ALS-536.2)
- **8020** Cardiac Symptoms other than Chest Pain (palpitations) (ALS-785.1)
- **8064** Chemical Restraint (ALS-293.0)
- **8012** Chest Pain (non- traumatic) (ALS-786.50)
- **8013** Choking Episode (ALS-784.9)
- **8014** Cold Exposure (ALS-991.6)
- **8015** Cold Exposure (BLS-991.9)
- **8017** Convulsions/Seizures (ALS-780.39)
- **8010** Difficulty Breathing (ALS-786.05)
- **8056** Electrocutation (ALS-994.8)
- **8058** Eye Injuries (BLS-921.9)

- **8018** Eye Symptoms (non- traumatic) (BLS-379.90)
- **8026** Hazmat Exposure (ALS-987.9)
- **8022** Heat Exposure (ALS-992.5)
- **8023** Heat Exposure (BLS-992.2)
- **8024** Hemorrhage (ALS-459.0)
- **8025** Infectious Diseases requiring Isolation/Public Health Risk (BLS-038.9)
- **8063** IV Meds Required (ALS-No ICD code provided)
- **8055** Lightning (ALS-994.0)
- **8043** Major Trauma (ALS-959.8)
- **8027** Medical Device Failure (ALS-996.0)
- **8028** Medical Device Failure (BLS-996.3)
- **8057** Near Drowning (ALS-994.1)
- **8029** Neurologic Distress (ALS-436.0)
- **8019** Non Traumatic Headache (ALS-437.9)
- **8048** Other Trauma (amputation digits) (BLS-886.0)
- **8049** Other Trauma (amputation other) (ALS-887.4)
- **8046** Other Trauma (fracture/dislocation) (BLS-829.0)
- **8045** Other Trauma (major bleeding) (ALS-958.2)
- **8044** Other Trauma (need for monitor or airway) (ALS-518.5)
- **8047** Other Trauma (penetrating extremity) (BLS-880.0)
- **8050** Other Trauma (suspected internal injuries) (ALS-869.0)
- **8030** Pain (Severe) (ALS-780.99)
- **8069** Patient Safety (monitoring required) (BLS-293.1)
- **8068** Patient Safety (restraints required) (BLS-298.9)
- **8071** Patient Safety (risk of falling off stretcher) (BLS-781.3)
- **8070** Patient Safety (seclusion required) (BLS-298.8)
- **8033** Poisons (all routes) (ALS-977.9)
- **8036** Post-Operative Procedure Complications (BLS-998.9)
- **8037** Pregnancy Complication/Childbirth/Labor (ALS-650.0)
- **8038** Psychiatric/Behavioral (abnormal mental status) (ALS-292.9)
- **8039** Psychiatric/Behavioral (threat to self or others) (BLS-298.9)
- **8009** Respiratory Arrest (ALS-799.1)
- **8041** Severe Dehydration (ALS-787.01)
- **8059** Sexual Assault (major injuries) (ALS-995.83)
- **8060** Sexual Assault (minor injuries) (BLS-995.8)
- **8040** Sick Person-Fever (BLS-036.9)
- **8072** Special Handling (Isolation) (BLS-041.9)
- **8073** Special Handling (orthopedic device required) (BLS-907.2)
- **8074** Special Handling (positioning required) (BLS-719.45)
- **8065** Suctioning/Oxygen/IV fluids required (BLS-496.0)
- **8067** Third Party Assistance/Attendant Required (BLS-496.0)
- **8042** Unconscious/ Syncope/Dizziness (ALS-780.02)

Additional Information

- From the Center for Medicare and Medicaid Services (CMS) Ambulance Fee Schedule Condition Based Coding
- A list of 95 Condition Codes which are mapped to ICD-9 Codes. The number of the Condition Code should be stored in this field

Data Collector

EMS personnel unless the EMS Agency has professional billing personnel to provide this function

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

NUMBER OF PATIENTS AT SCENE

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

Indicator of how many total patients were at the scene

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>NumberOfPatientsAtScene</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1120** None
- **1125** Single
- **1130** Multiple

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

MASS CASUALTY INCIDENT

Level III (Providers utilizing a totally electronic system)

E08_06

Data Format [combo] single-choice

Definition

Indicator if this event would be considered a mass casualty incident (overwhelmed existing EMS resources)

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>YesNoValues</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1** Yes
- **0** No

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT LOCATION TYPE

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The kind of location where the incident happened

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>IncidentLocationType</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1140** Farm
- **1175** Health Care Facility (clinic, hospital, nursing home)
- **1135** Home/Residence
- **1150** Industrial Place and Premises
- **1185** Lake, River, Ocean
- **1145** Mine or Quarry
- **1190** Other Location
- **1155** Place of Recreation or Sport
- **1165** Public Building (schools, government offices)
- **1180** Residential Institution (Nursing Home, jail/prison)
- **1160** Street or Highway
- **1170** Trade or service (business, bars, restaurants, etc)

Additional Information

Based on ICD-9

Data Collector

EMS personnel

Content

The Place of Occurrence codes are used to 'type' or classify the location where the incident occurred, not necessarily the origin of the transport. If the Nursing Home is a retirement center for independent living with no health care provided unless needed, it is a Residential institution. If the nursing home is providing ongoing medical care, it is a Health Care Facility.

Discussion

The Incident Location Type field is used in CEMSIS to categorize all EMS incidents.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT FACILITY CODE

Level III (Providers utilizing a totally electronic system)

E08_08

Data Format [text]

Definition

The state or regulatory number (code) associated with the facility if the Incident is a Healthcare Facility.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>IncidentFacilityCode</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2
		Maximum Constraint	30

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Could be an editable list box Created from Hospitals Facility Number (D04_12) and Other Destination Facility Number (D04_14) (Elective NEMSIS elements)

Data Collector

EMS personnel

Content

This identifier must be unique within California, and should be the HIPAA NPI (National Provider Identifier).

Discussion

EMSA will electronically provide the HIPAA codes to the end user for this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

SCENE GPS LOCATION

Level III (Providers utilizing a totally electronic system)

Data Format [text]

Definition

The GPS coordinates associated with the Scene.

Technical Information

XSD Data Type	<i>xs:decimal</i>	XSD Domain (Simple Type)	<i>GPSLocation</i>
Multiple Entry Configuration	No	Accepts Null	No
Required in XSD	No		
XSD Attributes: Latitude and Longitude are each stored as a separate attribute			

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

EMS agency or may be electronically provided through the 911 or dispatch center

Content

Latitude is recorded as positive north decimal degrees (e.g., +37.3943825 degrees).
 Longitude is recorded as positive east decimal degrees (e.g., -122.0384625 degrees).
 Altitude is measured in meters above mean sea level in WGS-84 (e.g., 385.69 meters).

Discussion

This GPS position identifies the latitude, longitude, and altitude at the EMS incident scene at which the EMS response unit stops and the EMS response personnel disembark.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT CITY

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

The city or township (if applicable) where the patient was found or to which the unit responded (or best approximation)

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>City</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2
		Maximum Constraint	30
XSD Structure: E08_11, E08_12, E08_14, E08_15 are all members of E08_11_0 Incident Address Structure			

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

- Could be auto filled from Incident Zip Code entry (E08_15) at the end user site or LEMSA.
- 5 digit FIPS Code

Data Collector

EMS agency or may be electronically provided through the 911 or dispatch center

Content

This field uses the local city codes of each LEMSA

Discussion

The city location of the incident may facilitate probabilistic linkage to vital statistics, crash reports and hospital data. EMSA will electronically provide the FIPS codes to the end user and LEMSA.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT COUNTY

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

The county where the patient was found or to which the unit responded (or best approximation)

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	County
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2
		Maximum Constraint	5

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **-1** Out of State County
- **001** Alameda
- **003** Alpine
- **005** Amador
- **007** Butte
- **009** Calaveras
- **011** Colusa
- **013** Contra Costa
- **015** Del Norte
- **017** El Dorado
- **019** Fresno
- **021** Glenn
- **023** Humboldt
- **025** Imperial
- **027** Inyo
- **029** Kern
- **031** Kings
- **033** Lake
- **035** Lassen
- **037** Los Angeles
- **039** Madera
- **041** Marin
- **043** Mariposa
- **045** Mendocino
- **047** Merced
- **049** Modoc
- **051** Mono
- **053** Monterey
- **055** Napa
- **057** Nevada
- **059** Orange
- **061** Placer

- **063** Plumas
- **065** Riverside
- **067** Sacramento
- **069** San Benito
- **071** San Bernardino
- **073** San Diego
- **075** San Francisco
- **077** San Joaquin
- **079** San Luis Obispo
- **081** San Mateo
- **083** Santa Barbara
- **085** Santa Clara
- **087** Santa Cruz
- **089** Shasta
- **091** Sierra
- **093** Siskiyou
- **095** Solano
- **097** Sonoma
- **099** Stanislaus
- **101** Sutter
- **103** Tehama
- **105** Trinity
- **107** Tulare
- **109** Tuolumne
- **111** Ventura
- **113** Yolo
- **115** Yuba

Additional Information

- Could be auto filled from Incident Zip Code entry (E08_15) by the end user or LEMSA..
- Stored as a FIPS code at the state level.
- Stored as a 5 digit FIPS code (combining the state and county code) to take into account agencies may serve more than one state and counties are often named the same from state to state

Data Collector

EMS agency or may be electronically provided through the 911 or dispatch center

Content

This field uses the standard California County Codes (listed above).

Discussion

The county location of the incident may facilitate probabilistic linkage to vital statistics, crash reports or hospital data for the same county. The field can be used to link with federal census data aggregated by the California Department of Finance.

CEMSIS to NEMSIS Comparison

The CEMSIS variable list is tailored for California

INCIDENT STATE

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

The state, territory, or province where the patient was found or to which the unit responded (or best approximation). Note: Mexico has been added as a field value for California data collection purposes.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	State
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2
		Maximum Constraint	3
XSD Structure: E08_11, E08_12, E08_14, E08_15 are all members of E08_11_0 Incident			
Address Structure			

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 01 Alabama
- 02 Alaska
- 04 Arizona
- 05 Arkansas
- 06 California
- 08 Colorado
- 09 Connecticut
- 10 Delaware
- 11 District of Columbia
- 12 Florida
- 13 Georgia
- 15 Hawaii
- 16 Idaho
- 17 Illinois
- 18 Indiana
- 19 Iowa
- 20 Kansas
- 21 Kentucky
- 22 Louisiana
- 23 Maine
- 24 Maryland
- 25 Massachusetts
- 26 Michigan
- 27 Minnesota
- 28 Mississippi
- 29 Missouri
- 30 Montana

- 31 Nebraska
- 32 Nevada
- 33 New Hampshire
- 34 New Jersey
- 35 New Mexico
- 36 New York
- 37 North Carolina
- 38 North Dakota
- 39 Ohio
- 40 Oklahoma
- 41 Oregon
- 42 Pennsylvania
- 44 Rhode Island
- 45 South Carolina
- 46 South Dakota
- 47 Tennessee
- 48 Texas
- 49 Utah
- 50 Vermont
- 51 Virginia
- 78 Virgin Islands
- 53 Washington
- 54 West Virginia
- 55 Wisconsin
- 56 Wyoming
- 58 Mexico

Additional Information

- Could be auto filled from Incident Zip Code entry (E08_15).
- 2 digit FIPS code

Data Collector

EMS agency or may be electronically provided through the 911 or dispatch center

Content

This field will be coded using the above FIPS (Federal Information Processing Standards) alphabetic codes. This element will be “6” for California unless the incident occurs outside of “6” (California).

Discussion

The state location of the EMS incident may facilitate probabilistic linkage to other data.

CEMSIS to NEMSIS Comparison

Variables are from FIPS 2 digit state code

INCIDENT ZIP CODE

Level I (Providers currently on a paper based system)

Data Format [text]

Definition

The ZIP code of the incident location

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>Zip</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes	Minimum Constraint	2
		Maximum Constraint	10
XSD Structure: E08_11, E08_12, E08_14, E08_15 are all members of E08_11_0 Incident Address Structure			

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Data Collector

EMS agency or may be electronically provided through the 9-1-1 or dispatch center

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PRIOR AID

Level III (Providers utilizing a totally electronic system)

Data Format [combo] multiple-choice

Definition

Any care which was provided to the patient prior to the arrival of this unit.

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>PriorAid</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes	Minimum Constraint	2
		Maximum Constraint	30

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available

Additional Information

List created from Procedures (NEMSIS version 2.2.1 E19_03) and Medications (NEMSIS version 2.2.1 E18_03) and California pre-hospital scope of practice.

Data Collector

EMS personnel

Content

No historical content for this element

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

Variables obtained from Procedures (D04_04) and Medications (D04_06) and California prehospital scope of practice. The CEMSIS variable list differs slightly from NHTSA v2.2.1 but will allow data transmittal to NEMSIS.

PRIOR AID PERFORMED BY

Level III (Providers utilizing a totally electronic system)

Data Format [combo] multiple-choice

Definition

The type of individual who performed the care prior to the arrival of this unit.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>PriorAidPerformedBy</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1195** EMS Provider
- **1200** Law Enforcement
- **1205** Lay Person
- **1210** Other Healthcare Provider
- **1215** Patient

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

OUTCOME OF THE PRIOR AID

Level III (Providers utilizing a totally electronic system)

Data Format [combo] single-choice

Definition

What was the outcome or result of the care performed prior to the arrival of the unit?

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>OutcomeOfPriorAid</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1220** Improved
- **1225** Unchanged
- **1230** Worse

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

POSSIBLE INJURY

Level I (Providers currently on a paper based system)

Data Format [combo] single-choice

Definition

Indicates that the reason for the EMS encounter was related to an injury or traumatic event. This data element provides documentation to classify the EMS Reason for Encounter as either injury or non-injury related based on mechanism and not on actual injury

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>YesNoValues</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **0** No
- **1** Yes

Additional Information

- Possible Injury (E09_04), Chief Complaint Anatomic Location (E09_11), Chief Complaint Organ System (E09_12), and Primary Symptom (E09_13) are required to calculate the Reason for Encounter
- Can be used to determine which records should have Section E10: Situation/ Trauma completed. If Injury Present (E09_04) is “Yes”, Section E10 should be completed

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CHIEF COMPLAINT ANATOMIC LOCATION

Level II (Providers converting to an electronic system)

E09_11

Data Format [combo] single-choice

Definition

The primary anatomic location of the chief complaint as identified by EMS personnel

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Complaint Anatomic Location</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **1305** Abdomen
- **1310** Back
- **1315** Chest
- **1320** Extremity-Lower
- **1325** Extremity-Upper
- **1330** General/Global
- **1335** Genitalia
- **1340** Head
- **1345** Neck

Additional Information

Possible Injury (E09_04), Chief Complaint Anatomic Location (E09_11), Chief Complaint Organ System (E09_12), and Primary Symptom (E09_13) are required to calculate the Reason for Encounter

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CHIEF COMPLAINT ORGAN SYSTEM

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The primary organ system of the patient injured or medically affected. This is to be completed by EMS personnel with a minimum of an EMT-Paramedic level of credentialing.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>ComplaintOrganSystem</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 1350 Cardiovascular
- 1355 CNS/Neuro
- 1360 Endocrine/Metabolic
- 1365 GI
- 1370 Global
- 1375 Musculoskeletal
- 1380 OB/Gyn
- 1385 Psych
- 1390 Pulmonary
- 1395 Renal
- 1400 Skin

Additional Information

- Possible Injury (E09_04), Chief Complaint Anatomic Location (E09_11), Chief Complaint Organ System (E09_12), and Primary Symptom (E09_13) are required to calculate the Reason for Encounter
- This data element is to be completed by EMS personnel at the EMT-Paramedic level or higher

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PRIMARY SIGN/SYMPTOM

Level III (Providers utilizing a totally electronic system)

Data Format [combo] single-choice

Definition

The primary sign and symptom present in the patient or observed by EMS personnel

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>PrimarySymptom</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 1405 Bleeding
- 1410 Breathing Problem
- 1415 Change in responsiveness
- 1420 Choking
- 1425 Death
- 1430 Device/Equipment Problem
- 1435 Diarrhea
- 1440 Drainage/Discharge
- 1445 Fever
- 1450 Malaise
- 1455 Mass/Lesion
- 1460 Mental/Psych
- 1465 Nausea/Vomiting
- 1470 None
- 1475 Pain
- 1480 Palpitations
- 1485 Rash/Itching
- 1490 Swelling
- 1495 Transport Only
- 1500 Weakness
- 1505 Wound

Additional Information

Possible Injury (E09_04), Chief Complaint Anatomic Location (E09_11), Chief Complaint Organ System (E09_12), and Primary Symptom (E09_13) are required to calculate the Reason for Encounter

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

OTHER ASSOCIATED SIGNS/SYMPTOMS

Level III (Providers utilizing a totally electronic system)

Data Format [combo] multiple-choice

Definition

Other symptoms identified by the patient or observed by EMS personnel

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>OtherAssociatedSymptoms</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 1510 Bleeding
- 1515 Breathing Problem
- 1520 Change in responsiveness
- 1525 Choking
- 1530 Death
- 1535 Device/Equipment Problem
- 1540 Diarrhea
- 1545 Drainage/Discharge
- 1550 Fever
- 1555 Malaise
- 1560 Mass/Lesion
- 1565 Mental/Psych
- 1570 Nausea/Vomiting
- 1575 None
- 1580 Pain
- 1585 Palpitations
- 1590 Rash/Itching
- 1595 Swelling
- 1600 Transport Only
- 1605 Weakness
- 1610 Wound

Additional Information

This data element may be used for Bioterrorism Syndromic Surveillance.

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PROVIDER'S PRIMARY IMPRESSION

Level II (Providers currently on a paper based system)

Revised 8/25/2010

Data Format [combo] single-choice

Definition

The EMS personnel's impression of the patient's primary problem or most significant condition which led to the management given to the patient (treatments, medications, or procedures).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>ProvidersPrimaryImpression</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 1617 Abdominal Pain (including pelvic pain)
- 1691 Alcohol
- 1625 Allergic Reaction (unspecified allergen)
- 1630 Altered Level of Consciousness (unspecified)
- 1677 Anaphylactic
- 1703 Apneic Episode
- 1740 Blunt Injury
- 1742 Burn
- 1692 Carbon Monoxide
- 1640 Cardiac Arrest – non-traumatic
- 1652 Cardiac – non-specific
- 1676 Cardiogenic
- 1651 Chest Pain – non- specific
- 1650 Chest pain – suspected cardiac origin
- 1620 Choking (Airway obstruction)
- 1670 Cold Illness/Injury
- 1697 Delivery
- 1635 Disturbance in Behavior
- 1725 Envenomation
- 1748 Epistaxis (Nosebleed)
- 1666 Fever
- 1619 Gastrointestinal Bleeding
- 9002 Hazmat Exposure
- 1747 Headache
- 1665 Heat Illness/Injury
- 9003 Household/industrial ingestion
- 1656 Hyperglycemia
- 1655 Hypoglycemia
- 1675 Hypovolemic

- **1693** Insecticides
- **1695** Labor
- **1735** Near Syncope/Syncope
- **1730** Neurological Deficit (includes CVA/TIA)
- **1731** Neurological Deficit (non-specific (other))
- **1698** Newborn
- **-24** No Medical Complaint
- **1746** Non-traumatic body pain
- **1685** Obviously Dead
- **1744** Other
- **9001** Other Drugs/Poisons
- **1741** Penetrating Injury
- **1699** Pharmaceutical ingestion
- **1636** Phenothiazine Reaction
- **1711** Post Seizure
- **1705** Respiratory Arrest
- **1700** Respiratory – non- specific
- **1645** Rhythm Disturbance
- **1710** Seizure – Active/Status Epilepticus
- **1701** Shortness of Breath – suspected asthma/COPD
- **1702** Shortness of Breath - suspected pulmonary edema
- **9004** Street Drugs - depressant
- **1694** Street Drugs-stimulant
- **1690** Suspected Poisoning/Drugs – non- specific
- **1743** Traumatic Arrest
- **1678** Unspecified Shock
- **1615** Vaginal Bleed (non-pregnant)
- **1696** Vaginal Bleed (pregnant)
- **1616** Vaginal Bleed (unspecified)
- **1618** Vomiting/diarrhea
- **1736** Weak/Dizzy/Sick/Nausea

Additional Information

ICD-9 Codes will be documented in the data base at the EMSA level rather than the ICD-10 due to CMS's continued use of the ICD-9 in the EMS Condition Codes.

Data Collector

EMS personnel

Content

This should be the code from the above list that was most important in determining the treatment protocol followed to provide EMS care to the patient.

Discussion

This data element contains the single clinical assessment which primarily determined the treatment provided by the EMS provider. It should be possible to determine whether the treatments or medications provided match protocols that relate to the problem.

CEMSIS to NEMSIS Comparison

The CEMSIS variable list is more extensive than the NHTSA 2.2.1 list but it will allow data transmittal to NEMSIS.

PROVIDER'S SECONDARY IMPRESSION

Level II (Providers converting to an electronic system)

E09_16

Data Format [combo] single-choice

Definition

The EMS personnel's impression of the patient's secondary problem or which led to the management given to the patient (treatments, medications, or procedures).

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>ProvidersSecondaryImpression</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- -24 No Medical Complaint
- 1752 Abdominal Pain (including pelvic pain)
- 1826 Alcohol
- 1760 Allergic Reaction (unspecified allergen)
- 1765 Altered Level of Consciousness (unspecified)
- 1814 Anaphylactic
- 1837 Apneic Episode
- 1875 Blunt Injury
- 1877 Burn
- 1815 Carbon Monoxide
- 1775 Cardiac Arrest – non-traumatic
- 1776 Cardiac – non-specific
- 1811 Cardiogenic
- 1786 Chest Pain – non-specific
- 1785 Chest pain – suspected cardiac origin
- 1755 Choking (Airway obstruction)
- 1805 Cold Illness/Injury
- 1832 Delivery
- 1770 Disturbance in Behavior
- 1860 Envenomation
- 1759 Epistaxis (nosebleed)
- 1801 Fever
- 1754 Gastrointestinal Bleeding
- 1834 Hazmat Exposure
- 1761 Headache
- 1800 Heat Illness/Injury
- 9001 Household/industrial ingestion
- 1791 Hyperglycemia
- 1790 Hypoglycemia
- 1810 Hypovolemic
- 1827 Insecticides

- **1831** Labor
- **1870** Near Syncope/Syncope
- **1865** Neurological Deficit (includes CVA/TIA)
- **1866** Neurological Deficit non-specific (other)
- **1833** Newborn
- **1757** Non-traumatic body pain
- **1820** Obviously Dead
- **1756** Other
- **9000** Other Drugs/Poisons
- **1876** Penetrating Injury
- **1826** Pharmaceutical ingestion
- **1771** Phenothiazine Reaction
- **1846** Post Seizure
- **1840** Respiratory Arrest
- **1838** Respiratory – non-specific
- **1780** Rhythm Disturbance
- **1845** Seizure – Active/Status Epilepticus
- **1835** Shortness of Breath – suspected asthma/COPD
- **1836** Shortness of Breath - suspected pulmonary edema
- **1829** Street Drugs - depressant
- **1828** Street Drugs- stimulant
- **1825** Suspected Poisoning/Drugs – non- specific
- **1878** Traumatic Arrest
- **1813** Unspecified Shock
- **1750** Vaginal Bleed (non-pregnant)
- **1830** Vaginal Bleed (pregnant)
- **1751** Vaginal Bleed (unspecified)
- **1753** Vomiting/diarrhea
- **1871** Weak/Dizzy/Sick/Nausea

Data Collector

EMS personnel

Content

The EMS provider’s secondary clinical impression code that completes the description (in combination with the Primary Impression) of the patient.

Discussion

This data element contains additional clinical assessment that assists the EMS provider in determining necessary treatment. It should be possible to determine whether the treatments or medications provided match protocols that relate to the primary impression.

CEMSIS to NEMSIS Comparison

The CEMSIS variable list is more extensive than the NHTSA 2.2.1 list but it will allow data transmittal to NEMSIS

CAUSE OF INJURY

Level I (Providers currently on a paper based system)

E10_01

Data Format [combo] single-choice

Definition

The category of the reported/suspected external cause of the injury. This element provides for the classification of injury which may occur as the result of an incident, environmental event or poisoning.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>CauseOfInjury</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **9500** Aircraft Related Accident
- **9505** Bicycle Accident
- **9510** Bites
- **9515** Chemical Poisoning
- **9520** Child Battering
- **9525** Drowning
- **9530** Drug Poisoning
- **9535** Electrocution (non-lightning)
- **9540** Excessive Cold
- **9545** Excessive Heat
- **9550** Falls
- **9555** Fire and Flames
- **9560** **Firearm assault**
- **9565** Firearm Injury
- **9570** **Firearm self inflicted**
- **9575** Lightning
- **9580** Machinery Accidents
- **9585** Mechanical Suffocation
- **9600** Motorcycle Accident
- **9590** Motor Vehicle Non- traffic Accident
- **9595** Motor Vehicle Traffic Accident
- **9605** Non-motorized Vehicle Accident
- **9641** Other
- **9610** Pedestrian Traffic Accident
- **9615** Radiation Exposure
- **9620** Rape
- **9625** Smoke Inhalation

- **9635** Stabbing Assault
- **9630** Stabbing/Cutting Accidental
- **9640** Struck by Blunt/Thrown Object
- **9645** Venomous Stings (plants, animals)
- **9650** Water Transport Accident

Additional Information

- ICD-9 Codes will be documented in the database at the EMSA level rather than ICD-10 due to CMS's continued use of ICD-9 in the EMS Condition Codes.
- Complete only if Possible Injury (E09_04) is "Yes"

Data Collector

EMS personnel if Possible Injury (E09_04) is answered Yes

Content

It is necessary to have a broad taxonomy for defining the external causes of injury, and this data element is coded in part according to the E codes in ICD-9. The cause of injury cannot be coded exactly as the detailed E-codes. The above code set is not expected to be exact but a close approximation.

Discussion

It is recognized that the entire E code list is too cumbersome for field use, and the element may be collapsed into the codes that have been listed above. When possible, the E code should be defined in as much detail as is present in the definitions.

CEMSIS to NEMSIS Comparison

While the list does not appear to differ significantly, the NHTSA v2.2.1 list is based on E codes. This list would require extensive matching and careful inspection to insure completeness and proper matching.

INTENT OF THE INJURY

Level I (Providers currently on a paper based system)

E10_02

Data Format [combo] single-choice

Definition

The intent of the individual inflicting the injury

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>IntentOfInjury</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD No	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **2025** Intentional, Self
- **2020** Intentional, Other (Assaulted)
- **2030** Unintentional

Additional Information

Complete only if Possible Injury (E09_04) is "Yes"

Data Collector

EMS personnel if Possible Injury (E09_04) is answered Yes

Content

No historical content for this element.

Discussion

Used to better define cause and describe injury patterns within the EMS community.

CEMSIS to NEMSIS comparison

This element has been determined to be equivalent to the NGTSA v2.2.1 element.

MECHANISM OF INJURY

Level I (Providers currently on a paper based system)

Data Format [combo] multiple-choice

Definition

The mechanism of the event which caused the injury.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>MechanismOfInjury</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	No		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 2035 Blunt
- 2040 Burn
- 2045 Other
- 2050 Penetrating

Additional Information

Complete only if Possible Injury (E09_04) is "Yes"

Data Collector

EMS personnel if Possible Injury (E09_04) is answered Yes

Content

No historical content for this element.

Discussion

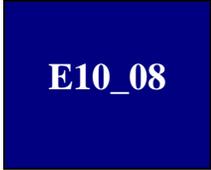
There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

SAFETY FACTORS

Level II (Providers converting to an electronic system)



Data Format [combo] multiple-choice

Definition

Safety factors that affected the incident.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>SafetyFactors</i>
Multiple Entry Configuration Yes	Accepts Null Yes
Required in XSD No	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **2210** Auto-Belts Restrained
- **2187** Auto-Belts-Unrestrained
- **2188** Auto-Belts Unknown Restraint use
- **2170** Auto-Seats Infant/Child Seat
- **2171** Auto-Seats Booster Seat
- **2189** Auto-Seats Unknown Seat Use
- **2196** Auto-Front Airbag deployed
- **2197** Auto-Side Airbag Deployed
- **2198** Auto-No Airbag deployed
- **2199** Auto- Person riding outside of moving vehicle
- **2191** Auto-Person riding unrestrained in bed of truck
- **2221** Auto-Child left unattended in auto
- **2175** **Eye Protection**
- **2222** Firearms-Trigger lock employed
- **2223** Firearm - No Trigger lock Employed
- **2224** Firearms-unsafe storage
- **2185** **Lap Belt**
- **2226** Obstacle/Hazard-Contribute to injury
- **2190** **Other**
- **2180** Other Vehicle/RV-Helmet Worn
- **2227** Other Vehicle/RV-Helmet Use unknown
- **2192** Other Vehicle/RV No Helmet Worn
- **2193** Other Vehicle/RV Pads Worn
- **2228** Other Vehicle/RV Pad use unknown
- **2229** Other Vehicle/RV-No Pads Worn
- **2231** Poisons/Meds-Easy Access
- **2200** **Protective Clothing**
- **2205** **Protective Non-Clothing Gear**
- **2232** Safety Rails-installed at scene of incident

- **2233** Safety Rails – None in place
- **2234** Swimming Pool-Self-closing, self latching gate
- **2236** Swimming Pool-No Self latching gate
- **2237** Swimming Pool-Surrounded by barrier fence
- **2238** Swimming Pool – No Fence
- **2195** Watercraft-PFD Worn
- **2239** Watercraft-PFD not worn
- **2241** Watercraft-PFD Use unknown
- **2242** Windows-Guards in place
- **2243** Window – No Guards in place

Additional Information

Complete only if Possible Injury (E09_04) is answered “Yes”.

Data Collector

EMS personnel if Possible Injury (E09_04) is answered “Yes”.

Content

One or more of the above codes can be recorded. For example, an auto crash involving a small child in an infant/child seat secured only by a lap belt with front and side airbags that did not deploy.

Discussion

Provides important information about safety device use. EMS personnel should be as complete as possible when coding for each category to assist in injury prevention activities.

CEMSIS to NEMSIS Comparison

The CEMSIS data element is a partial match to NEMSIS v2.2.1 but will allow data transmittal to NEMSIS

CARDIAC ARREST

Level II (Providers converting to an electronic system)

E11_01

Data Format [combo] single-choice

Definition

Indication of the presence of a cardiac arrest at any time associated with the EMS event.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>CardiacArrest</i>
Multiple Entry Configuration No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **0** No
- **2240** Yes, Prior to EMS Arrival
- **2245** Yes, After EMS Arrival

Additional Information

If answered YES, all other data points in the Situation/CPR (E11_01 through E11_11) should be addressed.

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CARDIAC ARREST ETIOLOGY

Level II (Providers converting to an electronic system)



Data Format [combo] single-choice

Definition

Indication of the etiology or cause of the cardiac arrest (classified as cardiac, non-cardiac, etc.)

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type)	<i>CardiacArrestEtiology</i>	
Multiple Entry Configuration	No	Accepts NULL	Yes
Required in XSD Yes			

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 2260 Drowning
- 2270 Electrocution
- 2275 Other
- 2250 Presumed Cardiac
- 2265 Respiratory
- 2255 Trauma

Additional Information

Complete only if Cardiac Arrest (E11_01) is “Yes”

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RESUSCITATION ATTEMPTED

Level II (Providers converting to an electronic system)



Data Format [combo] multiple-choice

Definition

Indication of an attempt to resuscitate the patient who is in cardiac arrest (attempted, not attempted due to DNR, etc.)

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>ResucitationAttempted</i>
Multiple Entry Configuration Yes	Accepts Null Yes
Required in XSD Yes	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 2280 Attempted Defibrillation
- 2285 Attempted Ventilation
- 2290 Initiated Chest Compressions
- 2295 Not Attempted-Considered Futile
- 2300 Not Attempted-DNR Orders
- 2305 Not Attempted-Signs of Circulation

Additional Information

Complete only if Cardiac Arrest (E11_01) is "Yes"

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CARDIAC ARREST-FIRST MONITORED RHYTHM OF THE PATIENT

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

Documentation of what the first monitored rhythm which was noted in a patient with cardiac arrest.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>FirstMonitoredRhythm</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **2325** Asystole
- **2330** Bradycardia
- **2335** Normal Sinus Rhythm
- **2340** Other
- **2345** PEA
- **2350** Unknown AED Non-Shockable Rhythm
- **2355** Unknown AED Shockable Rhythm
- **2360** Ventricular Fibrillation
- **2365** Ventricular Tachycardia

Additional Information

Complete only if Cardiac Arrest (E11_01) is "Yes"

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

This field contains the code(s) from the above list for the patient's initial cardiac rhythm as determined by EMS personnel.

Discussion

The initial monitored rhythm is used to assess the survival rate after certain rhythms.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ANY RETURN OF SPONTANEOUS CIRCULATION

Level II (Providers converting to an electronic system)

E11_06

Data Format [combo] single-choice

Definition

Indication whether or not there was any return of spontaneous circulation at any time during the EMS event.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>ReturnOfSpontaneousCirculation</i>
Multiple Entry Configuration No	Accepts NULL Yes
Required in XSD No	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **0** No
- **2370** Yes, Prior to ED Arrival Only
- **2375** Yes, Prior to ED Arrival and at the ED
- **2380** No

Additional Information

Complete only if Cardiac Arrest (E11_01) is "Yes"

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

Was there a return to spontaneous cardiovascular circulation at any time in the prehospital setting? Yes or No

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ESTIMATED TIME OF ARREST PRIOR TO EMS ARRIVAL

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The length of time the patient was down (estimated) before the responding unit arrived at the patient

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>EstimatedTimeOfArrestPriorToEMS</i>
Multiple Entry Configuration	No	Accepts Null	Yes
Required in XSD	No		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **2390** >20 Minutes
- **2395** 15-20 Minutes
- **2400** 10-15 Minutes
- **2405** 8-10 Minutes
- **2410** 6-8 Minutes
- **2415** 4-6 Minutes
- **2420** 2-4 Minutes
- **2425** 0-2 Minutes

Additional Information

Complete only if Cardiac Arrest (E11_01) is "Yes"

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

The minutes that a bystander or an EMS responder witnessed the cardiac arrest.

Discussion

This is determined from the time at which a collapse or signs of distress related to cardiac arrest were seen (or heard) by an identifiable witness (either bystander or EMS responder) to the time of arrival of the responding EMS unit to the patient.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

DATE/TIME RESUSCITATION DISCONTINUED

Level III (Providers utilizing a totally electronic system)

Data Format [date/time]

Definition

The date/time the CPR was discontinued (could be time of death)

Technical Information

XSD Data Type	<i>xs:dateTime</i>	XSD Domain (Simple Type)	<i>DateTime</i>
Multiple Entry Configuration	No	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	1,990
		Maximum Constraint	2,030

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Complete only if Cardiac Arrest (E11_01) is "Yes"

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

The hour, minute, and second when chest compressions and ventilations ceased. Midnight is '000000' and begins the day.

Discussion

The time CPR was discontinued by an EMS responder may be a manually observed time (i.e., one that is not determined using GPS universal time).

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CARDIAC RHYTHM ON ARRIVAL AT DESTINATION

Level II (Providers converting to an electronic system)

E11_11

Data Format [combo] multiple-choice

Definition

The patient's cardiac rhythm upon delivery or transfer to the destination

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>CardiacRythmAtDestination</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	No		

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 2455 12 Lead ECG-Anterior Ischemia
- 2460 12 Lead ECG-Inferior Ischemia
- 2465 12 Lead ECG-Lateral Ischemia
- 2470 Agonal/Idioventricular
- 2475 Artifact
- 2480 Asystole
- 2485 Atrial Fibrillation/Flutter
- 2490 AV Block-1st Degree
- 2495 AV Block-2nd Degree- Type 1
- 2500 AV Block-2nd Degree-Type 2
- 2505 AV Block-3rd Degree
- 2510 Junctional
- 2515 Left Bundle Branch Block
- 2520 Normal Sinus Rhythm
- 2525 Other
- 2530 Paced Rhythm
- 2535 PEA
- 2540 Premature Atrial Contractions
- 2545 Premature Ventricular Contractions
- 2550 Right Bundle Branch Block
- 2555 Sinus Arrhythmia
- 2560 Sinus Bradycardia
- 2565 Sinus Tachycardia
- 2570 Supraventricular Tachycardia
- 2575 Torsades de Points
- 2580 Unknown AED Non-Shockable Rhythm
- 2585 Unknown AED Shockable Rhythm
- 2590 Ventricular Fibrillation
- 2595 Ventricular Tachycardia

Additional Information

- Complete only if Cardiac Arrest (E11_01) is “Yes”
- This data point could be completed by documentation of the final rhythm in the Vital Signs Section (E14) with the appropriate time

Data Collector

EMS personnel if Cardiac Arrest (E11_01) is answered Yes

Content

This field contains the code(s) for the patient’s final cardiac rhythm that was monitored by EMS personnel. NOTE: Where PVC and/or PAC are observed in addition to the primary rhythm, the code for the primary rhythm occurs first, and ‘PVC’ and/or ‘PAC’ second.

Discussion

The initial monitored rhythm is used to assess the survival rate after certain rhythms.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

OTHER BARRIERS TO PATIENT CARE

Level III (Providers utilizing a totally electronic system)

E12_01

Data Format [combo] multiple-choice

Definition

Indication of whether or not there were any patient specific barriers to serving the patient at the scene

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>BarriersToPatientCare</i>
Multiple Entry Configuration	Yes	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **2600** Developmentally Impaired
- **2605** Hearing Impaired
- **2610** Language
- **2615** None
- **2620** Physically Impaired
- **2625** Physically Restrained
- **2630** Speech Impaired
- **2635** Unattended or Unsupervised (including minors)
- **2640** Unconscious

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element. Refer to E02_06 "Type of Dispatch Delay", E02_07 "Type of Response Delay, E02_08 "Type of Scene Delay and E02_09 "Type of Transport Delay".

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ALCOHOL/DRUG USE INDICATORS

Level III (Providers utilizing a totally electronic system)

E12_19

Data Format [combo] multiple-choice

Definition

Indicators for the potential use of alcohol or drugs by the patient.

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>AlcoholDrugUseIndicators</i>
Multiple Entry Configuration Yes	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **3000** Alcohol and/or Drug Paraphernalia at Scene
- **2990** Patient Admits to Alcohol Use
- **2995** Patient Admits to Drug Use
- **2985** Smell of Alcohol on Breath

Data Collector

EMS personnel

Content

Should be coded whenever the EMS responder suspects alcohol and/or drug use by the patient at the time of the incident. If alcohol or drugs are totally unrelated to the incident, this field should be coded as '-25' (Not Applicable).

Discussion

Important data element for injury research, permitting reports of value to public health researchers and policy makers.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

CARDIAC RHYTHM

Level I (Providers currently on a paper based system)

E14_03

Data Format [combo] multiple-choice

Definition

The initial and subsequent cardiac rhythm(s) of the patient as interpreted by EMS personnel

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>CardiacRythm</i>
Multiple Entry Configuration	(1) Yes, via structure. (2) Yes	Accepts Null	Yes
for each E14_01 Date/Time			
Required in XSD No			
XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time			

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 3005 12 Lead ECG-Anterior Ischemia
- 3010 12 Lead ECG-Inferior Ischemia
- 3015 12 Lead ECG-Lateral Ischemia
- 3020 Agonal/Idioventricular
- 3025 Artifact
- 3030 Asystole
- 3035 Atrial Fibrillation/Flutter
- 3040 AV Block-1st Degree
- 3045 AV Block-2nd Degree- Type 1
- 3050 AV Block-2nd Degree-Type 2
- 3055 AV Block-3rd Degree
- 3060 Junctional
- 3065 Left Bundle Branch Block
- 3070 Normal Sinus Rhythm
- 3075 Other
- 3080 Paced Rhythm
- 3085 PEA
- 3090 Premature Atrial Contractions
- 3095 Premature Ventricular Contractions
- 3100 Right Bundle Branch Block
- 3105 Sinus Arrhythmia
- 3110 Sinus Bradycardia
- 3115 Sinus Tachycardia
- 3120 Supraventricular Tachycardia
- 3125 Torsades de Points
- 3130 Unknown AED Non-Shockable Rhythm

- **3135** Unknown AED Shockable Rhythm
- **3140** Ventricular Fibrillation
- **3145** Ventricular Tachycardia

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

SBP (SYSTOLIC BLOOD PRESSURE)

Level I & II (Providers currently on a paper based system for the initial set of vitals; Level II for providers converting to an electronic system for subsequent sets of vitals)

Data Format [number]

Definition

The patient's initial and subsequent systolic blood pressure(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>SBP</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	400
XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_04, E14_05, and E14_06 are all members of E14_04_0 Blood Pressure Structure			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Could be collected from Device Systolic Blood Pressure (E21_14)

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

The patient's systolic blood pressure in millimeters of mercury (mmHg) as determined by EMS personnel.

Discussion

Important component of several scoring systems for triage, and permits some assessment of acuity of patient.

CEMIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

DBP (DIASTOLIC BLOOD PRESSURE) Level I (Providers currently on a paper based system)

E14_05

Data Format [number]

Definition

The patient's initial and subsequent diastolic blood pressure(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>DBP</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	300
XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_04, E14_05, and E14_06 are all members of E14_04_0 Blood Pressure Structure			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Could be collected from Device Diastolic Blood Pressure (E21_15)

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

The patient's diastolic blood pressure in millimeters of mercury (mmHg) as determined by EMS personnel. If the blood pressure is not auscultated, the diastolic blood pressure shall be documented as palpated (E14_06).

Discussion

Important component of several scoring systems for triage, and permits some assessment of acuity of patient.

CEMIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

METHOD OF BLOOD PRESSURE MEASUREMENT

Level III (Providers utilizing a totally electronic system)

E14_06

Data Format [combo] single-choice

Definition

Indication of method of blood pressure procedure.

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *MethodOfBloodPressure*

Multiple Entry Configuration Yes, via structure **Accepts Null** No

Required in XSD No

XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_04, E14_05, and E14_06 are all members of E14_04_0 Blood Pressure Structure

Field Values

- **3150** Arterial Line
- **3155** Automated Cuff
- **3160** Manual Cuff
- **3165** Palpated Cuff
- **3170** Venous Line

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

No historical content for this element .

Discussion

There are no discussion points related to this element.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PULSE RATE

Level I (Providers currently on a paper based system)

E14_07

Data Format [number]

Definition

The patient's initial and subsequent pulse rate(s), palpated or auscultated, expressed as a number per minute

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>PulseRate</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	500
XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Could be collected from Device Pulse Rate (E21_13)

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

The patient's pulse rate in number per minute that was determined by EMS personnel.

Discussion

The pulse rate is a component of various triage scoring systems, and permits a rough assessment of the severity of illness of the patient. This data element is based on the physical examination of the patient, and the pulse must be palpated or auscultated.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RESPIRATORY RATE

Level I (Providers currently on a paper based system)



Data Format [number]

Definition

The patient's initial and subsequent respiratory rate(s) expressed as a number per minute

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>RespiratoryRate</i>		
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty		
Required in XSD	No	Minimum Constraint	0	Maximum Constraint	100
XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time					

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Could be collected from Device Respiratory Rate (E21_16)

Data Collector

EMS personnel or may be provided electronically through a medical device

Content

The patient's unassisted respiratory rate in number per minute as determined by EMS personnel.

Discussion

The respiratory rate is a component of several triage scoring systems and provides some assessment of severity of illness or injury.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RESPIRATORY EFFORT

Level II (Providers converting to an electronic system)

E14_12

Data Format [text]

Definition

The patient's initial and subsequent respiratory effort(s)

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *RespiratoryEffort*

Multiple Entry Configuration Yes, via structure **Accepts Null** Yes

Required in XSD No

XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 3185 Normal
- 3190 Labored
- 3195 Fatigued
- 3200 Absent
- 3205 Not Assessed
- 3201 Ventilated

Data Collector

EMS personnel

Content

The code from the above list that indicates the effort required by the patient to breathe as determined by EMS personnel.

Discussion

Respiratory effort is an essential component of pediatric emergency assessment, and is a major part of curricula dealing with pediatric emergencies. Respiratory effort is also potentially valuable in assessing adult patients.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

GLASGOW COMA SCORE-EYE

Level I (Providers currently on a paper based system)

Data Format [number]

Definition

The patient's initial and subsequent Glasgow Coma Score Eye opening score(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	GCSEye
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	1
		Maximum Constraint	4
XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_15, E14_16, E14_17, and E14_18 are all members of E14_15_0 GCS Score Structure			

Field Values

- All Patients: 1 = None
- All Patients: 2 = Opens Eyes in response to painful stimulation
- All Patients: 3 = Opens Eyes in response to verbal
- All Patients: 4 = Opens Eyes spontaneously stimulation

Additional Information

Can be configured as a single choice list box

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

One of three components of the Glasgow coma scale as determined by EMS personnel, which is widely used to assess neurological status. The score and its components are also parts of a variety of triage scoring systems.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

GLASGOW COMA SCORE-VERBAL

Level I (Providers currently on a paper based system)

Data Format [number]

Definition

The patient's initial and subsequent Glasgow Coma Score Verbal score(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>GCSVerbal</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	1
		Maximum Constraint	5
XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_15, E14_16, E14_17, and E14_18 are all members of E14_15_0 GCS Score Structure			

Field Values

- For all age groups: 1 = None
- For all age group: 2 = Persistent cry, grunts or non-specified words
- For all age groups: 3 = Inappropriate cry, cries and/or screams, or inappropriate words
- For all age groups: 4 = Cries, inconsolable, inappropriate words, or confused conversation or speech
- For all age groups: 5 = Smiles, coos, cries appropriately, appropriate words, or oriented and appropriate speech

•

Additional Information

Can be configured as a single choice list box

Data Collector

EMS personnel

Content

If the patient is intubated and deeply comatose, then this data element is coded as 1 for none, since there was no verbal response at the time of intubation.

Discussion

One of three components of the Glasgow coma scale as determined by EMS personnel, which is widely used to assess neurological status. The score and its components are also parts of a variety of triage scoring systems.

CEMIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

GLASGOW COMA SCORE-MOTOR

Level I (Providers currently on a paper based system)

E14_17

Data Format [number]

Definition

The patient's initial and subsequent Glasgow Coma Score Motor score(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>GCSMotor</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	1
		Maximum Constraint	6
XSD Structure: (1) Each element in section E14 is associated with a E14_01 Date/Time. (2) E14_15, E14_16, E14_17, and E14_18 are all members of E14_15_0 GCS Score Structure			

Field Values

- For all age groups: 1 = None
- For all age groups: 2 = Extensor posturing in response to painful stimulation
- For all age groups: 3 = Flexor posturing in response to painful stimulation
- For all age groups: 4 = General withdrawal in response to painful stimulation for patients up to 5 years and General response to painful stimulation for patients greater than 5 years
- For all age groups: 5 = Localization of painful stimulation
- For all age groups: 6 = Spontaneous for patients up to 5 years and Obeys commands with appropriate motor responses for patients greater than 5 years.
-

Additional Information

Can be configured as a single choice list box

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

One of three components of the Glasgow coma scale as determined by EMS personnel, which is widely used to assess neurological status. The score and its components are also parts of a variety of triage scoring systems.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element



TOTAL GLASGOW COMA SCORE

Level I (Providers currently on a paper based system)

Data Format [number]

Definition

The patient's total initial and subsequent Glasgow Coma Score(s).

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>TotalGCS</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	1
		Maximum Constraint	15
XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

Calculated from Glasgow Coma Score-Eye (E14_15), Glasgow Coma Score-Verbal (E14_16), and Glasgow Coma Score-Motor (E14_17)

Data Collector

EMS personnel but could be auto-generated based on the information entered into an electronic patient care report

Content

The calculated Glasgow Coma Score is the sum of the eye opening, verbal and motor response components. The range of the score is 3 to 15.

Discussion

This important component of several triage scoring systems provides information about the severity of a neurological disorder.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PAIN SCALE

Level II (Providers converting to an electronic system)

Data Format [number]

Definition

The patient's indication of pain from a scale of 0 –10.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>PainScale</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	10
XSD Structure: Each element in section E14 is associated with E14_01 Date/Time			

Field Values

- 0 (no pain)
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (worst pain)

Additional Information

Number from 0 to 10

Data Collector

EMS personnel.

Content

No historical content for this element.

Discussion

Recommendation:

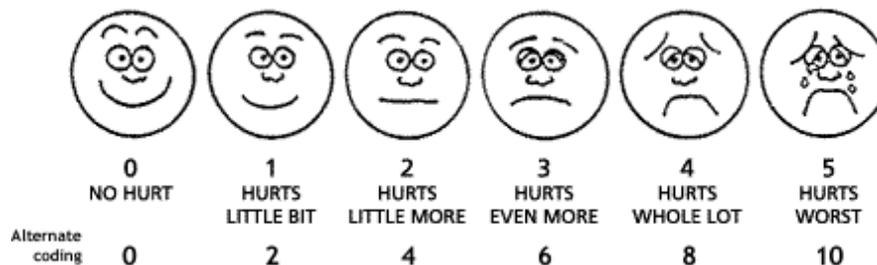
- Utilize the FLACC Behavioral Tool for children less than 3 years of age.

This tool is appropriate for use with children less than 3 years of age or those with cognitive impairments or any child who is unable to use the other scales. FLACC is the acronym for Face, Legs, Activity, Cry and Consolability. The patient is assessed in each of these categories with a score applied to behaviors evaluated. The five scores are totaled and the severity of pain is determined based on the 0-10 pain scale.

	0	1	2
FACE	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
LEGS	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
ACTIVITY	Lying quietly, normal position, moves easily	Squirming, tense, shifting back and forth, hesitant to move, guarding	Arched, rigid or jerking, fixed position, rocking, rubbing of body part
CRY	No cry/moan (awake or asleep)	Moans or whimpers, occasional cries, sighs or complaint	Cries steadily, screams, sobs, moans, groans, frequent complaints
CONSOLABILITY	Calm, content, relaxed, needs no consoling	Reassured by hugging, talking to; distractible	Difficult to console or comfort

- Utilize the Baker-Wong FACES Pain Rating Scale for children age 3 years and older. This tool is usually appropriate for use with children age 3 years and older. Point to each face using the words to describe the pain intensity. Ask the child to choose face that best describes how he/she is feeling. Explain to the person that each face is for a person who feels happy because he has no pain (hurt) or sad because he has some or a lot of pain. Ask the person to choose the face that best describes how he/she is feeling.

- Face 0 is very happy because he doesn't hurt at all.
- Face 2 hurts just a little bit.
- Face 4 hurts a little more.
- Face 6 hurts even more.
- Face 8 hurts a whole lot.
- Face 10 hurts as much as you can imagine, although you don't have to be crying to feel this bad.



From Hockenberry MJ, Wilson D, Winkelstein ML: Wong's Essentials of Pediatric Nursing, ed. 7, St. Louis, 2005, p. 1259. Used with permission. Copyright, Mosby.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

REVISED TRAUMA SCORE

Level II (Providers converting to an electronic system)

Data Format [number]

Definition

The patient's Revised Trauma Score

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>RTS</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	Yes, but null value is blank or empty
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	12
XSD Structure: Each element in section E14 is associated with a E14_01 Date/Time			

Field Values

Relevant Value for Data Element & Patient Care

Additional Information

- Can be auto-calculated from Respiratory Rate (E14_11), Systolic Blood Pressure (E14_04), and Total GCS (E14_19), if all three components are documented at the same Time (E14_01)
- Calculated based on 3 components
- Respiratory Rate Component: 4 = 10 - 29 per minute, 3 = >29 per minute, 2 = 6 - 9 per minute, 1 = 1 - 5 per minute, 0 = None spontaneous
- Systolic Blood Pressure Component: 4 = >89 mm Hg, 3 = 76 - 89 mm Hg, 2 = 50 - 75 mm Hg, 1 = 1 - 49 mm Hg, 0 = No pulse
- Neurological Component: 4 = Glasgow coma score 13 - 15, 3 = Glasgow coma score 9 - 12, 2 = Glasgow coma score 6 - 8, 1 = Glasgow coma score 4 - 5, 0 = Glasgow coma score 3

Data Collector

EMS personnel but could be auto-generated based on the information entered into an electronic patient care report

Content

No historical content for this element.

Discussion

The revised trauma score is a triage scoring system that may be used to categorize injured patients in an EMS system and is calculable from other data elements in the minimum data set.

CEMIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

ESTIMATED BODY WEIGHT

Level I (Providers currently on a paper based system)

E16_01

Data Format [number]

Definition

The patient's body weight in kilograms, either measured or estimated

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>EstimatedBodyWeight</i>		
Multiple Entry Configuration	No	Accepts Null	No		
Required in XSD	No	Minimum Constraint	1	Maximum Constraint	500

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

EMS personnel

Content

This weight should be a suitable estimate or for pediatric patients the approximate mid-point of the length based resuscitation tape weight range, or other suitable estimate.

Discussion

The approximate weight (in kilograms) of the patient is essential for pediatrics. Estimates may be based upon the length based resuscitation tape category that converts length into a weight range, and has the appropriate size and dose range for that weight.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

MEDICATION GIVEN

Level I (Providers currently on a paper based system)

E18_03

Data Format [combo] single-choice

Definition

The medication given to the patient

Technical Information

XSD Data Type <i>xs:string</i>	XSD Domain (Simple Type) <i>MedicationsGiven</i>
Multiple Entry Configuration Yes, via structure	Accepts Null Yes
Required in XSD Yes	Minimum Constraint 2 Maximum Constraint 30
XSD Structure: All data elements section E18 are members of the E18 Medication Structure	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- • 8755 Normal Saline
- 8650 25% Dextrose
- 8655 50% Dextrose
- 8760 Oral Glucose/Sugar Solutions
- 8605 Activated Charcoal
- 8610 Adenosine
- 8620 Aerosolized or nebulized beta-2 specific bronchodilator
- 8615 Amiodarone
- 8625 Aspirin
- 8630 Atropine Sulfate
- 8635 Beta Agonist (any drug)
- 8640 Blood & Blood Products
- 8645 Calcium Chloride
- 8665 Diazepam (Valium®)
- 8660 Diazepam (rectal Valium®)
- 8670 Diphenhydramine Hydrochloride (Benadryl®)
- 8675 Dopamine Hydrochloride
- 8680 Epinephrine
- 8685 Furosemide (Lasix®)
- 8690 Glucagon
- 8760 Glucose/Sugar Solutions
- 8695 Heparin (intravenous)
- 8700 Ipratropium Bromide (Atrovent®)
- 8705 Lidocaine Hydrochloride
- 8710 Lorazepam
- 8720 Mannitol
- 8725 Midazolam
- 8715 Magnesium Sulfate
- 8730 Morphine Sulfate

- **8735** Naloxone Hydrochloride
- **8745** Nitroglycerin
- **8740** Nitroglycerin (intravenous)
- **8750** Nitrous Oxide
- **8765** Oxygen
- **8770** Oxytocin (Pitocin®)
- **9998** Procainamide
- **8775** Potassium Chloride
- **8780** Pralixome Chloride 2 (2 PAM)
- **8790** Rocuronium Bromide (Zemuron®)
- **8795** Sodium Bicarbonate
- **8800** Sodium Thiosulfate
- **8805** Succinylcholine Chloride (Anectine)
- **8810** Syrup of Ipecac
- **8815** Tissue Plasminogen Activator

- **8820** Verapamil

Additional Information

List created from Medications (NEMSIS version 2.2.1 D04_06)

Data Collector

EMS personnel

Content

The medications listed above include those in the scope of practice for EMT-I, EMT-II and EMT-P and optional scope of practice approved for individual local EMS agencies. Some are approved only for inter-facility transfer (IFT) patients.

Discussion

Intended to provide planners and educators with information about which medications are administered in the field, by whom, and for what indications.

CEMSIS to NEMSIS Comparison

List created from Medications (D04_06)

MEDICATION ADMINISTERED ROUTE

Level II (Providers converting to an electronic system)

E18_04

Data Format [combo] single-choice

Definition

The route that the medication was administered to the patient.

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *MedicationAdministeredRoute*

Multiple Entry Configuration Yes, via structure **Accepts Null** Yes

Required in XSD No

XSD Structure: All data elements section E18 are members of the E18 Medication Structure

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 4175 Endotracheal tube
- 4180 Gastrostomy tube
- 4185 Inhalation
- 4190 Intramuscular
- 4191 Intraosseous
- 4200 Intraocular
- 4205 Intravenous
- 4210 Nasal
- 4215 Nasal prongs
- 4220 Nasogastric
- 4225 Ophthalmic
- 4230 Oral
- 4235 Other/miscellaneous
- 4240 Otic
- 4245 Re-breather mask
- 4250 Rectal
- 4255 Subcutaneous
- 4260 Sublingual
- 4265 Topical
- 4270 Tracheostomy
- 4275 Transdermal
- 4280 Urethral
- 4285 Ventimask
- 4290 Wound

Data Collector

EMS personnel

Content

Documentation of route used for each medication given to a patient.

Discussion

This data element documents the route for each medication as some medications can be administered multiple routes.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

MEDICATION DOSAGE

Level II (Providers converting to an electronic system)

E18_05

Data Format [number]

Definition

The dose or amount of medication given to the patient

Technical Information

XSD Data Type	<i>xs:decimal</i>	XSD Domain (Simple Type)	<i>MedicationDosage</i>
Multiple Entry Configuration	Yes, via structure	Accepts Null	No
Required in XSD	No	Minimum Constraint	0
		Maximum Constraint	1,000,000
XSD Structure: (1) All data elements section E18 are members of the E18 Medication Structure. (2) E18_05 and E18_06 are members of E18_05_0 Medication Dosing Structure			

Field Values

Relevant Value for Data Element & Patient Care

Data Collector

EMS personnel

Content

Documentation of the dosage for each medication administered to a patient including the decimal point. PRN orders should be documented in the open comment field on the PCR, but not recorded in this field unless the medication is actually given.

Discussion

Documentation of dosage should only be for those medications actually administered to a patient. When giving IV fluids, the amount given in the field until the time of arrival at the hospital should be recorded here.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

MEDICATION DOSAGE UNITS

Level II (Providers converting to an electronic system)

Data Format [combo] single-choice

Definition

The units of medication dosage given to patient

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *MedicationDosageUnits*

Multiple Entry Configuration Yes, via structure **Accepts Null** No

Required in XSD No

XSD Structure: (1) All data elements section E18 are members of the E18 Medication Structure.

(2) E18_05 and E18_06 are members of E18_05_0 Medication Dosing Structure

Field Values

- **4295** GMS
- **4300** Inches
- **4305** IU
- **4310** KVO (TKO)
- **4320** LITERS
- **4325** LPM
- **4330** MCG
- **4335** MCG/KG/MIN
- **4340** MEQ
- **4345** MG
- **4350** MG/KG/MIN
- **4355** ML
- **4360** ML/HR
- **4371** Standard Metered Dose
- **4365** Other

Data Collector

EMS personnel

Content

Documentation of the dosage unit for each medication administered to a patient.

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

RESPONSE TO MEDICATION

Level III (Providers utilizing a totally electronic system)

E18_07

Data Format [combo] single-choice

Definition

The patient's response to the medication. See also "Medication Complication" E18_08.

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *ResponseToMedication*

Multiple Entry Configuration Yes, via structure **Accepts Null** Yes

Required in XSD No

XSD Structure: All data elements section E18 are members of the E18 Medication Structure

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **4375** Improved
- **4380** Unchanged
- **4385** Worse

Data Collector

EMS personnel

Content

Documentation of result of medications given to a patient by pre-hospital personnel.

Discussion

This data element permits the evaluation of the benefits of medications given in the field.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

MEDICATION COMPLICATION

Level III (Providers utilizing a totally electronic system)

E18_08

Data Format [combo] multiple-choice

Definition

Any complication (abnormal effect on the patient) associated with the administration of the medication to the patient by EMS

Technical Information

XSD Data Type *xs:integer* **XSD Domain (Simple Type)** *MedicationComplication*

Multiple Entry Configuration (1) Yes, via structure. (2) Yes **Accepts Null** Yes
for each E14_01 Date/Time

Required in XSD Yes

XSD Structure: All data elements section E18 are members of the E18 Medication Structure

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 4395 Altered Mental Status
- 4400 Apnea
- 4405 Bleeding
- 4410 Bradycardia
- 4415 Diarrhea
- 4420 Extravasation
- 4425 Hypertension
- 4430 Hyperthermia
- 4435 Hypotension
- 4440 Hypoxia
- 4445 Injury
- 4450 Itching/Urticaria
- 4455 Nausea
- 4390 None
- 4460 Other
- 4465 Respiratory Distress
- 4470 Tachycardia
- 4475 Vomiting

Data Collector

EMS personnel

Content

No historical content for this element.

Discussion

There are no discussion points related to this element.

CEMIS to NEMIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PROCEDURE

Level I (Providers currently on a paper based system)

E19_03

Data [combo] single-choice

Definition

The procedure performed on the patient.

Technical Information

XSD Data Type	<i>xs:decimal</i>	XSD Domain (Simple Type)	<i>Procedure</i>
Multiple Entry	Yes, via structure	Accepts Null	Yes
Required in XSD	Yes	Minimum	0
		Maximum	1,000
XSD Structure: Data Elements E19_01 through E19_11 are all members of E19_01_0 Procedure Structure			

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- **89.820** 12 lead (obtain)
- **89.821** 12 lead (transmitted)
- **96.700** Airway- Assisted ventilation (positive pressure)
- **93.931** Airway- Bag/Valve/Mask
- **96.051** **Airway-Combitube**
- **96.040** Airway- Endotracheal intubation
- **96.992** Airway- End Tidal CO₂
- **96.035** Airway- Esophageal/tracheal airway
- **96.031** Airway- Esophageal airway
- **96.041** Airway- Intubation, other (stoma, nasal)
- **96.011** Airway- Nasopharyngeal airway
- **31.120** Airway- Needle cricothyrotomy
- **96.021** Airway- Oropharyngeal airway
- **8765** Airway- Oxygen by mask
- **96.070** Airway- NG\OG tube
- **8767** Airway- Oxygen by cannula
- **96.701** **Airway-Ventilator with PEEP**
- **89.610** **Arterial Line Maintenance**
- 89.700 Assessment-Adult
- 89.701 Assessment-Pediatric
- **93.055** Bleeding Control
- **38.995** **Blood Glucose Analysis**
- **38.990** Blood Sampling
- **99.600** CPR
- **99.601** **CPR by External Automated Device**
- **89.391** **Capnography**
- **86.280** **Decontamination**

- 99.621 Defibrillation (auto)
- 99.622 Defibrillation (manual)
- 99.615 Defibrillation (semi-automatic)
- 99.625 **Defibrillation-Placement for Monitoring/Analysis**
- 89.510 EKG monitor
- 96.040 **Endotracheal Intubation**
- 96.032 **Esophageal/tracheal airway**
- 100.200 **Extrication**
- 99.290 **Injections-SQ/IM**
- 41.923 Intraosseous catheter
- 38.992 Intravenous catheter
- 31.110 **Needle Cricothyrotomy**
- 34.041 Needle thoracostomy
- 34.042 Monitor thoracostomy tube(s)
- 8695 Monitor and adjust IV solutions containing heparin
- 8740 Monitor and adjust IV solutions containing nitroglycerine
- 8755 Monitor and adjust IV solutions containing potassium
- 38.993 Monitor pre-existing vascular access
- 96.070 **NG/OG Tube Insertion**
- 73.590 Obstetrical delivery
- 89.590 **Orthostatic Blood Pressure Measurement**
- 96.010 **Oxygen by Cannula**
- 89.702 **Pain Measurement**
- 99.624 Pacing
- 99.604 Precordial thump
- 9999 Pre-existing devices
- 89.392 Pulse Oximetry
- 96.042 Rapid Sequence Induction
- 98.130 Removal of foreign body
- 99.842 Restraints
- 99.841 **Restraints-Pharmacological**
- 38.991 Saline lock
- 93.591 Spinal precautions
- 93.540 Splinting- Splint of extremity (non-traction)
- 93.450 Splint- Traction splint
- 98.150 Suction tube(s)
- 99.623 Synchronized cardioversion
- 89.703 **Temperature Measurement**
- 89.704 **Thrombolytic Screen**
- 99.640 Vagal maneuvers
- 89.620 **Venous Access-Central Line Maintenance**
- 39.997 **Venous Access-Discontinue**
- 38.993 **Venous Access-External Jugular Line**
- 38.994 **venous Access-Femoral Line**
- 93.057 Wound care
- 93.580 Pneumatic Anti-Shock Garment

Additional Information

List created from Procedures (NEMSIS version 2.2.1 D04_04)

Data Collector

EMS personnel

Content

The procedures listed above include those in the scope of practice for EMT-I, EMT-II and EMT-P and optional scope of practice approved for individual local EMS agencies. The coding documented at the EMSA level will utilize the ICD-9 Procedure Codes.

Discussion

Intended to provide planners and educators with information about which procedures are conducted in the field, by whom, and for what indications. Procedures are defined here as anything done by way of assessment or treatment of the patient.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

NUMBER OF PROCEDURE ATTEMPTS

Level III (Providers utilizing a totally electronic system)

Data [number]

Definition

The number of attempts taken to complete a procedure or intervention regardless of success

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Number of Procedure Attempts</i>
Multiple Entry Yes, via structure	Accepts Null Yes
Required in XSD Yes	Minimum Constraint -25 Maximum Constraint 100
XSD Structure: Data Elements E19_01 through E19_11 are all members of E19_01_0 Procedure Structure	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- Relevant Value for Data Element & Patient Care

Data Collector

EMS personnel

Content

For procedures list in E19_03 that are performed on the patient, this field indicates the number of attempts per EMS personnel regardless of success.

Discussion

In most instances, the number will be '1'. This data element permits educators and researchers to know whether certain procedures are posing particular technical problems in the field.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PROCEDURE SUCCESSFUL

Level III (Providers utilizing a totally electronic system)

E19_06

Data [combo] single-choice

Definition

Indication of whether or not the procedure performed on the patient was successful

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) Yes No Values
Multiple Entry Yes, via structure	Accepts Null Yes
Required in XSD Yes	
XSD Structure: Data Elements E19_01 through E19_11 are all members of E19_01_0 Procedure Structure	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 0 No
- 1 Yes

Data Collector

EMS personnel

Content

Documentation of result/success of each procedure attempted on a patient by pre-hospital personnel. Result/Success should be documented for each personnel who attempts a procedure. All procedures listed in E19_03 should have result/success documented.

Discussion

This data element permits educators and researchers to know whether certain procedures are posing particular technical problems in the field.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

PROCEDURE COMPLICATION

Level III (Providers utilizing a totally electronic system)

Data [combo] multiple-choice

Definition

Any complication associated with the performance of the procedure on the patient

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>ProcedureComplication</i>
Multiple Entry	(1) Yes, via structure. (2) Yes for each E14_01	Accepts Null	Yes
Required in XSD	Yes	XSD Structure: Data Elements E19_01 through E19_11 are all members of E19_01_0 Procedure Structure	

Field Values

- -25 Not Applicable
- -20 Not Recorded
- -15 Not Reporting
- -10 Not Known
- -5 Not Available
- 4500 None
- 4505 Altered Mental Status
- 4510 Apnea
- 4515 Bleeding
- 4520 Bradycardia
- 4525 Diarrhea
- 4530 Esophageal Intubation- immediately
- 4535 Esophageal Intubation-other
- 4540 Extravasation
- 4550 Hyperthermia
- 4545 Hypertension
- 4555 Hypotension
- 4560 Hypoxia
- 4570 Itching/Urticaria
- 4565 Injury
- 4575 Nausea
- 4580 Other
- 4585 Respiratory Distress
- 4590 Tachycardia
- 4595 Vomiting

Data Collector

EMS personnel

Content

No historical content for this element

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

DESTINATION/TRANSFERRED TO, NAME

Level II (Providers converting to an electronic system)

E20_01

Data [text]

Definition

The destination the patient was delivered or transferred to

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>Destination Transferred To ID</i>
Multiple Entry	No	Accepts Null	Yes
Required in XSD	No	Minimum Constraint	2 Maximum Constraint 50

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Could be an editable single choice list box derived from Hospitals Served (D04_11) and Other Destinations

Data Collector

EMS personnel

Content

This identifier must be unique within California, and should be the HIPAA NPI (National Provider Identifier).

Discussion

EMSA will electronically provide the HIPAA codes to the end user.

Data element: **Level II** (Providers converting to an electronic system.)

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

DESTINATION ZIP CODE

Level I (Providers currently on a paper based system)

E20_07

Data [text]

Definition

The destination zip code in which the patient was delivered or transferred to

Technical Information

XSD Data Type	<i>xs:string</i>	XSD Domain (Simple Type)	<i>Zip</i>
Multiple Entry	No	Accepts Null	Yes
Required in XSD	Yes	Minimum Constraint	2 Maximum Constraint 10
XSD Structure: E20_03, E20_04, E20_05, and E20_07 are all members of E2-_03_0 Destination Address Structure			

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **-5** Not Available
- Relevant Value for Data Element & Patient Care

Additional Information

Can be 5 or 9 digit Zip Code

Data Collector

EMS provider agency or may be electronically provided through the 911 or dispatch center. May be autofilled from destination data E20_01.

Content

No historical content for this element

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

INCIDENT/PATIENT DISPOSITION

Level I (Providers currently on a paper based system)

E20_10

Data [combo] single-choice

Definition

Type of disposition treatment and/or transport of the patient.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>IncidentPatientDisposition</i>
Multiple Entry	No	Accepts Null	No
Required in XSD	Yes		

Field Values

- **4821** Discontinued resuscitation
- **4825** No patient found
- **4830** No treatment required
- **4820** Patient dead upon arrival of EMS responders
- **4835** Patient/parent refused care and transport
- **4815** Response cancelled
- **4851** Transferred care to other EMS unit
- **4831** Transported but patient/parent refused care
- **4850** Transported to receiving facility
- **4840** Treated and not transported by EMS personnel
- **4841** Treated but patient/parent refused transport
- **4855** Treated, Transported by Law Enforcement
- **4860** Treated, Transported by Private Vehicle

Data Collector

EMS personnel

Content

One of the above codes that indicates the disposition of the EMS response.

Discussion

The variables list for this element was altered to match the original CA dataset.

CEMSIS to NEMSIS Comparison

The variable list for this element was altered to match the original CA dataset while still trying to be inclusive of NHTSA 2.2.1. It will allow data transmittal to NEMSIS

TRANSPORT MODE FROM SCENE

Level III (Providers utilizing a totally electronic system)

Data [combo] single-choice

Definition

Indication whether or not lights and/or sirens were used on the vehicle while leaving scene

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Transport Mode From Scene</i>
Multiple Entry No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **4955** Initial Lights and Sirens, Downgraded to No Lights or Sirens
- **4960** Initial No Lights or Sirens, Upgraded to Lights and Sirens
- **4965** Lights and Sirens
- **4970** No Lights or Sirens

Data Collector

EMS personnel

Content

The code that identifies the use of lights and/or sirens during transport from the incident scene to the destination

Discussion

This field provides the data to determine the frequency with which EMS vehicles are using lights and/or sirens during transport from the EMS incident scene to the destination.

Data element: **Level III** (Providers utilizing a totally electronic system.)

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

REASON FOR CHOOSING DESTINATION

Level I (Providers currently on a paper based system)

E20_16

Data [combo] single-choice

Definition

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

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>Reason For Choosing Destination</i>
Multiple Entry	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **4990** Closest Facility
- **4995** Diversion
- **5000** Family Choice
- **5005** Insurance Status
- **5010** Law Enforcement Choice
- **5015** On-Line Medical Direction
- **5020** Other
- **5025** Patient Choice
- **5030** Patient's Physician's Choice
- **5035** Protocol
- **5040** Specialty Resource Center

Additional Information

If Diversion is selected, please see C01_05 "Diversion"

Data Collector

EMS personnel

Content

The code (from those above) that indicates the primary reason the destination was selected. Closest facility should be chosen if none of the other variables are appropriate.

Discussion

Helps EMS managers determine whether the choice of destination was appropriate.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

TYPE OF DESTINATION

Level I (Providers currently on a paper based system)

E20_17

Data [combo] single-choice

Definition

The type of destination the patient was delivered or transferred to

Technical Information

XSD Data Type <i>xs:integer</i>	XSD Domain (Simple Type) <i>Type of Destination</i>
Multiple Entry No	Accepts Null Yes
Required in XSD Yes	

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **5045** Home
- **5050** Hospital
- **5055** Medical Office/Clinic
- **5060** Morgue
- **5065** Nursing Home
- **5070** Other
- **5075** Other EMS Responder (air)
- **5080** Other EMS Responder (ground)
- **5085** Police/Jail

Data Collector

EMS personnel

Content

No historical content for this element

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element.

EMERGENCY DEPARTMENT DISPOSITION

Level III (Providers utilizing a totally electronic system)

E22_01

Data [combo] single-choice

Definition

The known disposition of the patient from the Emergency Department (ED)

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>Emergency Department Disposition</i>
Multiple Entry	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable (Not Transported to ED)
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **5335** Admitted to Hospital Floor
- **5340** Admitted to Hospital ICU
- **5345** Death
- **5355** Released
- **5360** Transferred

Data Collector

EMS provider agency: Could be collected by EMS Administration or electronically provided through linkage with hospital databases

Content

No historical content for this element

Discussion

Capture of this data element will be achieved through probabilistic matching by the EMS Authority.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element

HOSPITAL DISPOSITION

Level III (Providers utilizing a totally electronic system)

Data [combo] single-choice

Definition

Indication of the patient's disposition from the hospital, if admitted.

Technical Information

XSD Data Type	<i>xs:integer</i>	XSD Domain (Simple Type)	<i>Hospital Disposition</i>
Multiple Entry	No	Accepts Null	Yes
Required in XSD	Yes		

Field Values

- **-25** Not Applicable
- **-20** Not Recorded
- **-15** Not Reporting
- **-10** Not Known
- **- 5** Not Available
- **5365** Death
- **5370** Discharged
- **5375** Transfer to Hospital
- **5380** Transfer to Nursing Home
- **5385** Transfer to Other
- **5390** Transfer to Rehabilitation Facility

Data Collector

EMS provider agency: Could be collected by EMS Administration or electronically provided through linkage with hospital databases

Content

No historical content for this element

Discussion

There are no discussion points related to this element.

CEMSIS to NEMSIS Comparison

This element has been determined to be equivalent to the NHTSA v2.2.1 element