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EMERGENCY MEDICAL SERVICES DATA SYSTEM STANDARDS

EMSA #164
Commission on EMS
December 5, 2007
EMERGENCY MEDICAL SERVICES
DATA SYSTEM STANDARDS

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AS DEVELOPED BY:
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August 2006
## ACKNOWLEDGEMENT

### CURRENT MEMBERS STATE EMS DATA COMMITTEE

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<th>Title/Position</th>
<th>Agency/Institution</th>
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<tr>
<td>Steve Andriese</td>
<td>Administrator</td>
<td>Mountain Valley EMS Agency</td>
</tr>
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<td>Linda Combs</td>
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</tr>
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<td>Administrator</td>
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</tr>
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<td>Leo Derevin</td>
<td>Coordinator</td>
<td>Alameda County EMS Agency</td>
</tr>
<tr>
<td>Maureen Hasbrouk, RN, MS</td>
<td>Coordinator Data System Coordinator</td>
<td>Los Angeles County EMS Agency</td>
</tr>
<tr>
<td>Leif Juliussen</td>
<td>Coordinator</td>
<td>Milipitas Fire Department</td>
</tr>
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<td>Anne Marcotte, RN MSN</td>
<td>Quality Management Coordinator</td>
<td>Santa Clara County EMS Agency</td>
</tr>
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<td>Karl Nobuyki</td>
<td>Disaster Services Specialist</td>
<td>Los Angeles County Fire Department</td>
</tr>
<tr>
<td>Bob O'Brien</td>
<td>Division Chief</td>
<td>Fremont Fire Department</td>
</tr>
<tr>
<td>Ginger Ochs, RN</td>
<td>Coordinator</td>
<td>San Diego Fire-Rescue Department</td>
</tr>
<tr>
<td>Cathy Ord, RN</td>
<td>EMS Director</td>
<td>Newport Beach Fire Department</td>
</tr>
<tr>
<td>Adele Pagan</td>
<td>Information Systems Analyst</td>
<td>Alameda County EMS Agency</td>
</tr>
<tr>
<td>John R. Pringle, Jr. EMT-P</td>
<td>Electronic Documentation Coordinator</td>
<td>San Diego Fire-Rescue Department</td>
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<tr>
<td>Laurent Repass, NREMT-P</td>
<td>EMS Coordinator</td>
<td>Orange County EMS Agency</td>
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<tr>
<td>John R. Pringle, Jr. EMT-P</td>
<td>Electronic Documentation Coordinator</td>
<td>San Diego County EMS Agency</td>
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<tr>
<td>Luanne Underwood, RN</td>
<td>QI Program Director</td>
<td>Los Angeles County Fire Department</td>
</tr>
<tr>
<td>Ed Armitage</td>
<td>Administrator</td>
<td>Alameda County EMS Agency</td>
</tr>
</tbody>
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### PAST MEMBERS STATE EMS DATA COMMITTEE

<table>
<thead>
<tr>
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<th>Title/Position</th>
<th>Agency/Institution</th>
</tr>
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<tbody>
<tr>
<td>Todd Hatley</td>
<td>Data Coordinator</td>
<td>California State EMS Authority</td>
</tr>
<tr>
<td>David Lindberg</td>
<td>Data Coordinator</td>
<td>American Medical Response</td>
</tr>
<tr>
<td>Kristy Harlan</td>
<td>Data Coordinator</td>
<td>California State EMS Authority</td>
</tr>
<tr>
<td>Marie Harder</td>
<td>Data Coordinator</td>
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<td>CQI Manager/Paramedic Instructor</td>
<td>Sacramento Metro Fire Department</td>
</tr>
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<td>Data Systems Manager/Manager/Manager/Manager/Manager</td>
<td>California State EMS Authority</td>
</tr>
<tr>
<td>Charla Jenson</td>
<td>EMS Director</td>
<td>Sacramento Metro Fire Department</td>
</tr>
<tr>
<td>Craig Stroup</td>
<td>Emergency Medical Sciences Training Institute</td>
<td>Sacramento Metro Fire Department</td>
</tr>
<tr>
<td>Glen Youngblood</td>
<td>EMS Coordinator/Data Analyst</td>
<td>National EMSC Data Analysis Resource Center</td>
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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](http://www.nemsis.org) and obtain technical information from the website.

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Accepts Null Value</td>
</tr>
</tbody>
</table>

**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)**

**Data Format** [combo] single choice

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

**Technical Information (to be developed)**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
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<tbody>
<tr>
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</tbody>
</table>

**Multiple Entry Configuration** Accepts Null Value

**Required in XSD**

**Field Values**

**LEMSA IDENTIFIER CODES**

- Alameda 011
- Contra Costa 013
- El Dorado 017
- Imperial 025
- Kern 029
- Los Angeles 037
- Marin 041
- Merced 047
- Monterey 053
- Orange 059
- Riverside 065
- Sacramento 067
- San Benito 069
- San Diego 073
- San Francisco 075
- San Joaquin 077
- San Luis Obispo 079
- San Mateo 081
- Santa Barbara 083
- Santa Clara 085
- Santa Cruz 087
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- Ventura 111
- Central California 117
- Mountain-Valley 119
- North Coast 121
- Northern California 123
- Inland Counties 125
- Sierra-Sacramento Valley 127
- Coastal Valleys 129
**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) call for the EMS Incident.

Technical (to be developed)

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<thead>
<tr>
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</tbody>
</table>

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 NENA (the National Emergency Number Association), if available in the LEMSA data. If the LEMSA database does not contain the NENA 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

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

**Data Format**
[combo] single-choice

**Definition**
Description of the provider’s incident location.

**Technical (to be developed)**

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<td>Accepts Null</td>
</tr>
<tr>
<td>Required in XSD</td>
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</tbody>
</table>

**Field Values**
To be autofilled based on zip code.

**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**

**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

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 (to be developed)

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiple Entry</td>
</tr>
<tr>
<td></td>
<td>Accepts Null</td>
</tr>
<tr>
<td></td>
<td>Required in XSD</td>
</tr>
</tbody>
</table>

Field Values
• ejection from automobile
• death in same passenger compartment
• extrication time >20 minutes
• falls >20 feet (pediatric patients > 10 feet or 2-3 x height of the child)
• rollover
• initial speed from auto crash >40 mph
• major auto deformity >20 inches
• intrusion into passenger compartment >12 inches
• auto-pedestrian/auto-bicycle injury with significant (> 20 mph) impact
• pedestrian thrown or run over
• motorcycle crash >20 mph or with (separation of rider from bike)
• age <5 or >55
• cardiac disease, respiratory disease
• insulin-dependent diabetes, cirrhosis, or morbid obesity
• pregnancy (> 20 weeks)
• immunosuppressed
• bleeding disorder or patient on anticoagulants
• end stage renal disease requiring dialysis
• time sensitive extremity injury
• 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

Level II (Providers converting to an electronic system)

Data Format [text]

Definition
The intended destination for a patient prior to diversion.

Technical (to be developed)

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiple Entry</td>
</tr>
<tr>
<td></td>
<td>Accepts Null</td>
</tr>
</tbody>
</table>

Required in XSD

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
EMSA will electronically provide the HIPAA codes to the end user. (Do we want to include language stating “Helps EMS managers determine frequency and location of Emergency Department diversion.”?)

CEMSIS to NEMSIS Comparison
No match
Minimum Elements

Elements adopted from NEMSIS
EMS AGENCY TIME ZONE

Level I (Providers currently on a paper based system)

Data Format [text]

Definition
The time zone for the EMS Agency

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>EMSAgencyTimeZone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- GMT-11:00 Midway Island, Samoa
- GMT-09:00 Alaska
- GMT-10:00 Hawaii
- GMT-08:00 Pacific Time
- GMT-07:00 Mountain Time
- GMT-06:00 Central Time
- GMT-05:00 Eastern Time
- 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
VEHICLE TYPE

**Level III (Providers utilizing a totally electronic system)**

**Data Format** [combo] single-choice

**Definition**
Vehicle type of unit (ambulance, fire, truck, etc.)

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>VehicleType</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

XSD Structure: (1) Data Elements D06_01 through D06_10 are all within the Vehicle Information Structure

**Field Values**
- Ambulance
- ATV
- Bicycle
- Boat
- Fire Engine
- Fire Truck
- Fixed Wing
- Motorcycle
- Private Vehicle
- Quick Response Vehicle (Non-Transport Vehicle other than Fire Truck)
- Rescue
- Rotor Craft
- Other

**Data Collector**
EMS Agency and typically only documented once then verified and updated yearly or when changed

**Content**
Vehicle Type contains character sub-fields that describe the vehicle: response classification, medical classification, and vehicle classification to which the crew member providing treatment is attached. These sub-fields must be coded using the above code

**Discussion**
This character code identifies the type of vehicle that the crew member providing patient care was assigned to.

**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

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

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)

Data Format [text]

Definition
The state-assigned provider number of the responding agency

Technical Information

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

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)

Data Format [text]

Definition
The incident number assigned by the 911 Dispatch System

Technical Information

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

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 LEMSA 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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeOfServiceRequested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
</tbody>
</table>

Required in XSD  Yes

Field Values

- 911 Response (Scene)
- Intercept
- Interfacility Transfer
- Medical Transport
- Mutual Aid
- 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)

Data Format [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>PrimaryRollOfTheUnit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- Non-Transport
- Rescue
- Supervisor
- 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeName</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Configuration</td>
<td>Yes</td>
<td>XSD (Simple Type)</td>
<td>TypeOfDispatchDelay</td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- High Call Volume
- Language Barrier
- Location (Inability to Obtain)
- No Units Available
- Scene Safety (Not Secure for EMS)
- Technical Failure (Computer, Phone etc.)
- None
- 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)

Data Format [combo] multiple-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeOfResponseDelay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Crowd
- Directions
- Diversion
- Distance
- HazMat
- Safety
- Staff Delay
- Traffic
- Vehicle Crash
- Vehicle Failure
- Weather
- None
- Other

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeOfSceneDelay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
-  Crowd
- Directions
-  Distance
-  Diversion
- Extrication >20 min.
- HazMat
- Language Barrier
-  Safety
-  Staff Delay
- Traffic
- Vehicle Crash
- Vehicle Failure
- Weather
- None
- Other

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeOfTransportDelay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD Yes

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

- Crowd
- Directions
- Distance
- Diversion
- HazMat
- Safety
- Staff Delay
- Traffic
- Vehicle Crash
- Vehicle Failure
- Weather
- None
- Other

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TypeOfTurnAroundDelay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Field Values**
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Clean-up
- Decontamination
- Documentation
- ED Overcrowding
- Equipment Failure
- Equipment Replenishment
- Staff Delay
- Vehicle Failure
- None
- Other

**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)*

**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**

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

**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.

Data element: **Level I** (Providers currently on a paper based system.)

**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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ResponseModeToScene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- Initial Lights and Sirens, Downgraded to No Lights or Sirens
- Initial No Lights or Sirens, Upgraded to Lights and Sirens
- Lights and Sirens
- 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ComplaintReportedByDispatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Animal Pain
- Allergies
- Animal Bite
- Assault
- Back Pain
- Breathing Problem
- Burns
- CO Poisoning/Hazmat
- Cardiac Arrest
- Chest Pain
- Choking
- Convulsions/Seizure
- Diabetic Problem
- Drowning
- Electrocution
- Eye Problem
- Fall Victim
- Headache
- Heart Problems
- Heat/Cold Exposure
- Hemorrhage/Laceration
- Industrial Accident/Inaccessible Incident/Other Entrapments (non-vehicle)
- Ingestion/Poisoning
- Pregnancy/Childbirth
- Psychiatric Problem
- Sick Person
- Stab/Gunshot Wound
- Stroke/CVA
• Traffic Accident
• Traumatic Injury
• Unconscious/Fainting
• Unknown Problem Person Down
• Transfer/Interfacility/Palliative Care
• MCI (Mass Casualty Incident)

**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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>EMDPerformed</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Multiple Entry Configuration**
No

**Accepts Null**
Yes

**Field Values**
- 25 Not Applicable
- 20 Not Recorded
- 15 Not Reporting
- 10 Not Known
- 5 Not Available
- 0 No
- Yes, With Pre-Arrival Instructions
- 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)

Data Format [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CrewMemberLevel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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
  - First Responder
  - EMT Basic
  - EMT Intermediate
  - EMT Paramedic
  - Nurse
  - Physician
  - Student
  - Other Healthcare Professional
  - Other Non-Healthcare Professional
  - Public Safety (including volunteer)

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 DO6_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)

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

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

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)

Data Format [date/time]

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

Technical Information

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

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
</tbody>
</table>

| 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>DateTime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>1,990</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>DateTime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>1,990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum Constraint</td>
<td>2,030</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>DateTime</th>
</tr>
</thead>
<tbody>
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<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>1,990</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>DateTime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

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)

**Data Format** [date/time]

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

**Technical Information**

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

**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)

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

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

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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:dateTime</th>
<th>XSD Domain (Simple Type)</th>
<th>DateTime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

| 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
LAST NAME
Level II (Providers converting to an electronic system)

Data Format [text]

Definition
The patient's last (family) name

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>LastName</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>Zip</th>
</tr>
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<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 electronincally 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>SocialSecurityNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
<th>Accepts Null</th>
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</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>Gender</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Multiple Entry Configuration**

- No
- Accepts Null: Yes

**Field Values**

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Race</th>
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<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Other Race

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
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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
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</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>Ethnicity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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
- Hispanic or Latino
- 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Age</th>
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<tbody>
<tr>
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<td>No</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
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<td>Required in XSD</td>
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</tr>
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<td>Maximum Constraint</td>
<td>120</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 ≥ 1 month old but < 2 years old, the age is reported in months. For patients ≥ 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>AgeUnits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
  - Hours
  - Days
  - Months
  - 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:date</th>
<th>XSD Domain (Simple Type)</th>
<th>DateOfBirth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>1,890</td>
</tr>
</tbody>
</table>

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)

Data Format [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>PrimaryMethodOfPayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD Yes

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Medicaid/Medi-Cal
  - Medicare
  - Not billed (for any reason)
  - Self Pay
  - Military Insurance/Other Government Insurance
  - Worker’s Compensation
  - Private Commercial insurance/Managed Care Organization

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)

Data Format [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CMSServiceLevel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD Yes

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  • BLS
  • BLS, Emergency
  • ALS, Level 1
  • ALS, Level 1 Emergency
  • ALS, Level 2
  • Paramedic Intercept
  • Specialty Care Transport
  • Fixed Wind (Airplane)
  • 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/medhcpcs/medhcpcs_geninfo/

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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>ConditionCodeNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum Constraint</td>
<td>30</td>
</tr>
</tbody>
</table>

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

- Severe Abdominal Pain (ALS-789.00)
- Abdominal Pain (ALS-789.00)
- Abnormal Cardiac Rhythm/Cardiac Dysrhythmia (ALS-427.9)
- Abnormal Skin Signs (ALS-780.8)
- Abnormal Vital Signs (ALS-796.4)
- Allergic Reaction (ALS-995.0)
- Allergic Reaction (BLS-692.9)
- Blood Glucose (ALS-790.21)
- Respiratory Arrest (ALS-799.1)
- Difficulty Breathing (ALS-786.05)
- Cardiac Arrest-Resuscitation in Progress (ALS-427.5)
- Chest Pain (non-traumatic) (ALS-786.50)
- Choking Episode (ALS-784.9)
- Cold Exposure (ALS-991.6)
- Cold Exposure (BLS-991.9)
- Altered Level of Consciousness (non-traumatic) (ALS-780.01)
- Convulsions/Seizures (ALS-780.39)
- Eye Symptoms (non-traumatic) (BLS-379.90)
- Non Traumatic Headache (ALS-437.9)
- Cardiac Symptoms other than Chest Pain (palpitations) (ALS-785.1)
- Cardiac Symptoms other than Chest Pain (atypical pain) (ALS-536.2)
- Heat Exposure (ALS-992.5)
- Heat Exposure (BLS-992.2)
- Hemorrhage (ALS-459.0)
- Infectious Diseases requiring Isolation/Public Health Risk (BLS-038.9)
- Hazmat Exposure (ALS-987.9)
- Medical Device Failure (ALS-996.0)
- Medical Device Failure (BLS-996.3)
- Neurologic Distress (ALS-436.0)
- Pain (Severe) (ALS-780.99)
- Back Pain (non-traumatic possible cardiac or vascular) (ALS-724.5)
- Back Pain (non-traumatic with neurologic symptoms) (ALS-724.9)
- Poisons (all routes) (ALS-977.9)
- Alcohol Intoxication or Drug Overdose (BLS-305.0)
- Severe Alcohol Intoxication (ALS-977.3)
- Post-Operative Procedure Complications (BLS-998.9)
- Pregnancy Complication/Childbirth/Labor (ALS-650.0)
- Psychiatric/Behavioral (abnormal mental status) (ALS-292.9)
- Psychiatric/Behavioral (threat to self or others) (BLS-298.9)
- Sick Person-Fever (BLS-036.9)
- Severe Dehydration (ALS-787.01)
- Unconscious/Syncope/Dizziness (ALS-780.02)
- Major Trauma (ALS-959.8)
- Other Trauma (need for monitor or airway) (ALS-518.5)
- Other Trauma (major bleeding) (ALS-958.2)
- Other Trauma (fracture/dislocation) (BLS-829.0)
- Other Trauma (penetrating extremity) (BLS-880.0)
- Other Trauma (amputation digits) (BLS-886.0)
- Other Trauma (amputation other) (ALS-887.4)
- Other Trauma (suspected internal injuries) (ALS-869.0)
- Burns-Major (ALS-949.3)
- Burns-Minor (BLS-949.2)
- Animal Bites/Sting/Envenomation (ALS-989.5)
- Animal Bites/Sting/Envenomation (BLS-879.8)
- Lightning (ALS-994.0)
- Electrocution (ALS-994.8)
- Near Drowning (ALS-994.1)
- Eye Injuries (BLS-921.9)
- Sexual Assault (major injuries) (ALS-995.83)
- Sexual Assault (minor injuries) (BLS-995.8)
- Cardiac/Hemodynamic Monitoring Required (ALS-428.9)
- Advanced Airway Management (ALS-518.81)
- IV Meds Required (ALS-No ICD code provided)
- Chemical Restraint (ALS-293.0)
- Suctioning/Oxygen/IV fluids required (BLS-496.0)
- Airway Control/Positioning Required (BLS-786.09)
- Third Party Assistance/Attendant Required (BLS-496.0)
- Patient Safety (restraints required) (BLS-298.9)
- Patient Safety (monitoring required) (BLS-293.1)
- Patient Safety (seclusion required) (BLS-298.8)
- Patient Safety (risk of falling off stretcher) (BLS-781.3)
- Special Handling (Isolation) (BLS-041.9)
- Special Handling (orthopedic device required) (BLS-907.2)
- Special Handling (positioning required) (BLS-719.45)

**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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>NumberOfPatientsAtScene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD Yes

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - None
  - Single
  - 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)

**Data Format**  [combo] single-choice

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

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>YesNoValues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**
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

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

- Home/Residence
- Farm
- Mine or Quarry
- Industrial Place and Premises
- Place of Recreation or Sport
- Street or Highway
- Public Building (schools, gov. offices)
- Trade or service (business, bars, restaurants, etc)
- Health Care Facility (clinic, hospital, nursing home)
- Residential Institution (Nursing Home, jail/prison)
- Lake, River, Ocean
- Other Location

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)

Data Format [text]

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>IncidentFacilityCode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

| 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSD Domain (Simple Type)</td>
<td>GPSLocation</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>City</th>
</tr>
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<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
</tbody>
</table>

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
<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

XSD Structure: E08_11_0 Incident Address Structure

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- 2 Alaska
- 4 Arizona
- 5 Arkansas
- 6 California
- 8 Colorado
- 9 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
- 53 Washington
- 54 West Virginia
- 55 Wisconsin
- 56 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
<th>Minimum Constraint</th>
<th>Maximum Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs:string</td>
<td>Zip</td>
<td>Yes</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Multiple Entry Configuration No
Accepts Null 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
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</thead>
<tbody>
<tr>
<td>xs:string</td>
<td>PriorAid</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- • Bleeding Control
- • Blood Sampling
- • Obstetrical delivery
- • Pacing
- • Wound care
- • NG/OG tube
- • Precordial thump
- • Rapid Sequence Induction
- • Restraints
- • 12 lead
- • CPR
- • Defibrillation (auto)
- • Synchronized cardioversion
- • Defibrillation (manual)
- • Defibrillation (semi-automatic)
- • EKG monitor
- • Pre-existing devices
- • Removal of foreign body
- • Vagal maneuvers
- • Oxygen by mask
- • Oxygen by cannula
- • Bag/Valve/Mask
- • Oropharyngeal airway
- • Nasopharyngeal airway
- • Esophageal airway
- • Esophageal/tracheal airway
- • Endotracheal intubation
- Intubation, other (stoma, nasal)
- Needle cricothyrotomy
- Needle thoracostomy
- Monitor thoracostomy tube(s)
- Assisted ventilation (positive pressure)
- Suction tube(s)
- Pulse Oximetry
- End Tidal CO2
- Saline lock
- Intravenous catheter
- Intraosseous catheter
- Monitor pre-existing vascular access
- Monitor and adjust IV solutions containing potassium
- Monitor and adjust IV solutions containing heparin
- Monitor and adjust IV solutions containing nitroglycerine
- Splint of extremity (non-traction)
- Traction splint
- Spinal precautions
- Normal Saline
- 25% Dextrose
- 50% Dextrose
- Oral Glucose/Sugar Solutions
- Activated Charcoal
- Adenosine
- Aerosolized or nebulized beta-2 specific bronchodilator
- Amiodarone
- Aspirin
- Atropine Sulfate
- Beta Agonist (any drug)
- Blood & Blood Products
- Calcium Chloride
- Diazepam (Valium®)
- Diazepam (rectal Valium®)
- Diphenhydramine Hydrochloride (Benadryl®)
- Dopamine Hydrochloride
- Epinephrine
- Furosemide (Lasix®)
- Glucagon
- Heparin (intravenous)
- Ipratropium Bromide (Atrovent®)
- Lidocaine Hydrochloride
- Lorazepam
- Mannitol
- Midazolam
- Magnesium Sulfate
- Morphine Sulfate
- Naloxone Hydrochloride
- Nitroglycerin Preparations (except IV)
• Nitroglycerin (intravenous)
• Nitrous Oxide
• Oxygen
• Oxytocin (Pitocin®)
• Procainamide
• Potassium Chloride
• Pralixome Chloride 2 (2 PAM)
• Rocuronium Bromide (Zemuron®)
• Sodium Bicarbonate
• Sodium Thiosulfate
• Succinylcholine Chloride (Anectine)
• Syrup of Ipecac
• Tissue Plasminogen Activator
• Verapamil

**Additional Information**
List created from Procedures (D04_04) and Medications (D04_06) (Elective NEMSIS elements) and California prehospital 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>PriorAidPerformedBy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - EMS Provider
  - Law Enforcement
  - Lay Person
  - Other Healthcare Provider
  - 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>OutcomeOfPriorAid</th>
</tr>
</thead>
<tbody>
<tr>
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<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD Yes

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Improved
- Unchanged
- 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

<table>
<thead>
<tr>
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<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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)

Data Format [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Complaint Anatomic Location</th>
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</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Abdomen
- Chest
- Extremity-Lower
- Extremity-Upper
- General/Global
- Genitalia
- Head
- 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ComplaintOrganSystem</th>
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<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- CardiOvascular
- CNS/Neuro
- Endocrine/Metabolic
- GI
- Global
- Musculoskeletal
- OB/Gyn
- Psych
- Pulmonary
- Renal
- 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>PrimarySymptom</th>
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<tbody>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Bleeding
- Breathing Problem
- Change in responsiveness
- Choking
- Death
- Device/Equipment Problem
- Diarrhea
- Drainage/Discharge
- Fever
- Malaise
- Mass/Lesion
- Mental/Psych
- Nausea/Vomiting
- None
- Pain
- Palpitations
- Rash/Itching
- Swelling
- Transport Only
- Weakness
- 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/SYMPOTMS

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Accepts Null</th>
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</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>OtherAssociatedSymptoms</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Multiple Entry Configuration**
Yes

**Required in XSD**
Yes

**Field Values**
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Bleeding
  - Breathing Problem
  - Change in responsiveness
  - Choking
  - Death
  - Device/Equipment Problem
  - Diarrhea
  - Drainage/Discharge
  - Fever
  - Malaise
  - Mass/Lesion
  - Mental/Psych
  - Nausea/Vomiting
  - None
  - Pain
  - Palpitations
  - Rash/Itching
  - Swelling
  - Transport Only
  - Weakness
  - 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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
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<th>XSD Domain (Simple Type)</th>
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</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Cardiac Arrest – non-traumatic
  - Rhythm Disturbance
  - Cardiac – non-specific
  - Chest pain – suspected cardiac origin
  - Chest Pain – non-specific
  - Respiratory Arrest
  - Shortness of Breath – suspected asthma/COPD
  - Shortness of Breath - suspected pulmonary edema
  - Apneic Episode
  - Choking (Airway obstruction)
  - Respiratory – non-specific
  - Altered Level of Consciousness (unspecified)
  - Near Syncope/Syncope
  - Neurologic Deficit (includes CVA/TIA)
  - Neurological Deficit (non-specific (other)
  - Seizure – Active/Status Epilepticus
  - Post Seizure
  - Anaphylactic
  - Cardiogenic
  - Hypovolemic
  - Unspecified Shock
  - Suspected Poisoning/Drugs – non-specific
  - Alcohol
  - Carbon Monoxide
  - Insecticides
  - Street Drugs-stimulant
  - Street Drugs - depressant
  - Other Drugs/Poisons
  - Household/industrial ingestion
• Pharmaceutical ingestion
• Heat Illness/Injury
• Cold Illness/Injury
• Envenomation
• Hazmat Exposure
• Vaginal Bleed (non-pregnant)
• Vaginal Bleed (pregnant)
• Vaginal Bleed (unspecified)
• Labor
• Delivery
• Newborn
• Allergic Reaction (unspecified allergen)
• Disturbance in Behavior
• Phenothiazine Reaction
• Hypoglycemia
• Hyperglycemia
• Abdominal Pain (including pelvic pain)
• Vomiting/diarrhea
• Gastrointestinal Bleeding
• Weak/Dizzy/Sick/Nausea
• Headache
• Epistaxis (nosebleed)
• Fever
• Non-traumatic body pain
• No Medical Complaint
• Obviously Dead
• Other
• Blunt Injury
• Penetrating Injury
• Burn
• Traumatic Arrest

**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)

**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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
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<th>XSD Domain (Simple Type)</th>
<th>ProvidersSecondaryImpression</th>
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</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Field Values**
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Cardiac Arrest – non-traumatic
- Rhythm Disturbance
- Cardiac – non- specific
- Chest pain – suspected cardiac origin
- Chest Pain – non-specific
- Respiratory Arrest
- Shortness of Breath – suspected asthma/COPD
- Shortness of Breath - suspected pulmonary edema
- Apneic Episode
- Choking (Airway obstruction)
- Respiratory – non-specific
- Altered Level of Consciousness (unspecified)
- Near Syncope/Syncope
- Neurologic Deficit (includes CVA/TIA)
- Neurological Deficit non-specific (other)
- Seizure – Active/Status Epilepticus
- Post Seizure
- Anaphylactic
- Cardiogenic
- Hypovolemic
- Unspecified Shock
- Suspected Poisoning/Drugs – non- specific
- Alcohol
- Carbon Monoxide
- Insecticides
- Street Drugs- stimulant
- Street Drugs - depressant
- Other Drugs/Poisons
• Household/industrial ingestion
• Pharmaceutical ingestion
• Heat Illness/Injury
• Cold Illness/Injury
• Envenomation
• Hazmat Exposure
• Vaginal Bleed (non-pregnant)
• Vaginal Bleed (pregnant)
• Vaginal Bleed (unspecified)
• Labor
• Delivery
• Newborn
• Allergic Reaction (unspecified allergen)
• Disturbance in Behavior
• Phenothiazine Reaction
• Hypoglycemia
• Hyperglycemia
• Abdominal Pain (including pelvic pain)
• Vomiting/diarrhea
• Gastrointestinal Bleeding
• Weak/Dizzy/Sick/Nausea
• Headache
• Epistaxis (nosebleed)
• Fever
• Non-traumatic body pain
• No Medical Complaint
• Obviously Dead
• Other
• Blunt Injury
• Penetrating Injury
• Burn
• Traumatic Arrest

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 then 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)*

**Data Format** [combo]

**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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Field Values**

-25  Not Applicable
-20  Not Recorded
-15  Not Reporting
-10  Not Known
-5   Not Available
-5   Motor Vehicle Traffic Accident
-5   Pedestrian Traffic Accident
-5   Motor Vehicle Non-traffic Accident
-5   Bicycle Accident
-5   Water Transport Accident
-5   Aircraft Related Accident
-5   Drug Poisoning
-5   Chemical Poisoning
-5   Falls
-5   Fire and Flames
-5   Smoke Inhalation
-5   Excessive Heat
-5   Excessive Cold
-5   Venomous Stings (plants, animals)
-5   Bites
-5   Lightning
-5   Drowning
-5   Mechanical Suffocation
-5   Machinery Accidents
-5   Electrocution (non-lightning)
-5   Radiation Exposure
-5   Firearm Injury
-5   Rape
• Stabbing Assault
• Child Battering
• Non-motorized Vehicle Accident
• Motorcycle Accident
• Stabbing/Cutting Accidental
• Struck by Blunt/Thrown Object
• Other

**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)

**Data Format** [combo] single-choice

**Definition**
The intent of the individual inflicting the injury

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>IntentOfInjury</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Field Values**
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Intentional, Self
  - Intentional, Other (Assaulted)
  - 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Multiple Entry Configuration</th>
<th>Accepts Null</th>
<th>Required in XSD</th>
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</thead>
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<td>xs:integer</td>
<td>MechanismOfInjury</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Blunt
  - Burn
  - Other
  - 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>UseOfOccupantSafetyEquipment</th>
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</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD No

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Auto-Belts Restrained
- Auto-Belts-Unrestrained
- Auto-Belts Unknown Restraint use
- Auto-Seats Infant/Child Seat
- Auto-Seats Booster Seat
- Auto-Seats Unknown Seat Use
- Auto-Front Airbag deployed
- Auto-Side Airbag Deployed
- Auto-No Airbag deployed
- Auto- Person riding outside of moving vehicle
- Auto-Person riding unrestrained in bed of truck
- Auto-Child left unattended in auto
- Firearms-Trigger lock employed
- Firearm - No Trigger lock Employed
- Firearms-unsafe storage
- Obstacle/Hazard-Contribute to injury
- Other Vehicle/RV-Helmet Worn
- Other Vehicle/RV-Helmet Use unknown
- Other Vehicle/RV No Helmet Worn
- Other Vehicle/RV Pads Worn
- Other Vehicle/RV Pad use unknown
- Other Vehicle/RV-No Pads Worn
- Poisons/Meds-Easy Access
- Safety Rails-installed at scene of incident
- Safety Rails – None in place
- Swimming Pool-Self-closing, self latching gate
- Wimming Pool-No Self latching gate
- Swimming Pool-Surrounded by barrier fence
• Swimming Pool – No Fence
• Watercraft-PFD Worn
• Watercraft-PFD not worn
• Watercraft-PFD Use unknown
• Windows-Guards in place
• 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)

**Data Format**  [combo] single-choice

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

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CardiacArrest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Field Values**
-25  Not Applicable  
-20  Not Recorded  
-15  Not Reporting  
-10  Not Known  
-5  Not Available  
0  No  
-25  Not Applicable  
-20  Not Recorded  
-15  Not Reporting  
-10  Not Known  
-5  Not Available  
0  No  

- Yes, Prior to EMS Arrival  
- 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.

**CEMSIS to NEMSIS 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CardiacArrestEtiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Presumed Cardiac
- Trauma
- Drowning
- Respiratory
- Electrocution
- Other

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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ResuscitationAttempted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Field Values**
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Attempted Defibrillation
  - Attempted Ventilation
  - Initiated Chest Compressions
  - Not Attempted-Considered Futile
  - Not Attempted-DNR Orders
  - 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>FirstMonitoredRhythm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Asystole
- Bradycardia
- Normal Sinus Rhythm
- Other
- PEA
- Unknown AED Non-Shockable Rhythm
- Unknown AED Shockable Rhythm
- Ventricular Fibrillation
- 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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ReturnOfSpontaneousCirculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>EstimatedTimeOfArrestPriorToEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD: No

Field Values
- 25 Not Applicable
- 20 Not Recorded
- 15 Not Reporting
- 10 Not Known
- 5 Not Available
- >20 Minutes
- 15-20 Minutes
- 10-15 Minutes
- 8-10 Minutes
- 6-8 Minutes
- 4-6 Minutes
- 2-4 Minutes
- 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

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

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)

Data Format [combo] multiple-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CardiacRythmAtDestination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- 25 Not Applicable
- 20 Not Recorded
- 15 Not Reporting
- 10 Not Known
- 5 Not Available
  - 12 Lead ECG-Anterior Ischemia
  - 12 Lead ECG-Inferior Ischemia
  - 12 Lead ECG-Lateral Ischemia
  - Agonal/Idioventricular
  - Artifact
  - Asystole
  - Atrial Fibrillation/Flutter
  - AV Block-1st Degree
  - AV Block-2nd Degree-Type 1
  - AV Block-2nd Degree-Type 2
  - AV Block-3rd Degree
  - Junctional
  - Left Bundle Branch Block
  - Normal Sinus Rhythm
  - Other
  - Paced Rhythm
  - PEA
  - Premature Atrial Contractions
  - Premature Ventricular Contractions
  - Right Bundle Branch Block
  - Sinus Arrhythmia
  - Sinus Bradycardia
  - Sinus Tachycardia
  - Supraventricular Tachycardia
  - Torsades de Points
  - Unknown AED Non-Shockable Rhythm
  - Unknown AED Shockable Rhythm
  - Ventricular Fibrillation
  - 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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>BarriersToPatientCare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Developmentally Impaired
  - Hearing Impaired
  - Language
  - None
  - Physically Impaired
  - Physically Restrained
  - Speech Impaired
  - Unattended or Unsupervised (including minors)
  - 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)

Data Format [combo] multiple-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Multiple Entry Configuration</th>
<th>Accepts Null</th>
<th>Required in XSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>AlcoholDrugUseIndicators</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- • Smell of Alcohol on Breath
- • Patient Admits to Alcohol Use
- • Patient Admits to Drug Use
- • Alcohol and/or Drug Paraphernalia at Scene

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)

Data Format [combo] multiple-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>CardiacRythm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>(1) Yes, via structure. (2) Yes</td>
<td>Accepts Null</td>
<td>Yes for each E14_01 Date/Time</td>
</tr>
</tbody>
</table>

Required in XSD No

XSD Structure: Each element is 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
- 12 Lead ECG-Anterior Ischemia
- 12 Lead ECG-Inferior Ischemia
- 12 Lead ECG-Lateral Ischemia
- Agonal/Idioventricular
- Artifact
- Asystole
- Atrial Fibrillation/Flutter
- AV Block-1st Degree
- AV Block-2nd Degree-Type 1
- AV Block-2nd Degree-Type 2
- AV Block-3rd Degree
- Junctional
- Left Bundle Branch Block
- Normal Sinus Rhythm
- Other
- Paced Rhythm
- PEA
- Premature Atrial Contractions
- Premature Ventricular Contractions
- Right Bundle Branch Block
- Sinus Arrhythmia
- Sinus Bradycardia
- Sinus Tachycardia
- Supraventricular Tachycardia
- Torsades de Points
- Unknown AED Non-Shockable Rhythm
- Unknown AED Shockable Rhythm
- Ventricular Fibrillation
- 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**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Accepts Null</th>
<th>Required in XSD</th>
<th>Minimum Constraint</th>
<th>Maximum Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>SBP</td>
<td>Yes, but null value is blank or empty</td>
<td>No</td>
<td>0</td>
<td>400</td>
</tr>
</tbody>
</table>

**XSD Structure:**
(1) Each element is section E14 is associated with an 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.

**CEMSIS 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)

Data Format [number]

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>DBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

Required in XSD No
Minimum Constraint 0
Maximum Constraint 300

XSD Structure: (1) Each element is 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.

CEMSIS 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)**

## Data Format
[combo] single-choice

## Definition
Indication of method of blood pressure procedure.

## Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>XSD Domain (Simple Type)</th>
<th>Required in XSD</th>
<th>Accepts Null</th>
<th>XSD Structure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs:integer</td>
<td>MethodOfBloodPressure</td>
<td>No</td>
<td>No</td>
<td>(1) Each element is 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</td>
</tr>
</tbody>
</table>

## Field Values
- Arterial Line
- Automated Cuff
- Manual Cuff
- Palpated Cuff
- 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.

## CEMSIS to NEMSIS Comparison
This element has been determined to be equivalent to the NHTSA v2.2.1 element
PULSE RATE

Data Format [number]

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>PulseRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required in XSD</th>
<th>No</th>
<th>Minimum Constraint</th>
<th>0</th>
<th>Maximum Constraint</th>
<th>500</th>
</tr>
</thead>
</table>

XSD Structure: Each element is 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>RespiratoryRate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required in XSD</th>
<th>No</th>
<th>Minimum Constraint</th>
<th>0</th>
<th>Maximum Constraint</th>
<th>100</th>
</tr>
</thead>
</table>

XSD Structure: Each element is 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.

CEMSIS to NEMSIS 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)

Data Format [text]

Definition
The patient’s initial and subsequent respiratory effort(s)

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>RespiratoryEffort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Required in XSD No

XSD Structure: Each element is 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
- Normal
- Labored
- Fatigued
- Absent
- Not Assessed
- 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**

<table>
<thead>
<tr>
<th><strong>XSD Data Type</strong></th>
<th>xs:integer</th>
<th><strong>XSD Domain (Simple Type)</strong></th>
<th>GCSEye</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multiple Entry Configuration</strong></td>
<td>Yes, via structure</td>
<td><strong>Accepts Null</strong></td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

**Required in XSD**  
No

**Minimum Constraint**  
1

**Maximum Constraint**  
4

XSD Structure:  
(1) Each element is 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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>GCSVerbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>1</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>5</td>
<td>XSD Structure: (1) Each element is 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</td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- Patients 0-23 months: 1 = None
- Patients 0-23 months: 2 = Persistent cry
- Patients 0-23 months: 3 = Inappropriate cry
- Patients 0-23 months: 4 = Cries, inconsolable
- Patients 0-23 months: 5 = Smiles, coos, cries appropriately
- Patients 2-5 years: 1 = None
- Patients 2-5 years: 2 = Grunts
- Patients 2-5 years: 3 = Cries and/or screams
- Patients 2-5 years: 4 = Inappropriate words
- Patients 2-5 years: 5 = Appropriate words
- Patients >5 years: 1 = None
- Patients >5 years: 2 = Non-specified sounds
- Patients >5 years: 3 = Inappropriate words
- Patients >5 years: 4 = Confused conversation or speech
- Patients >5 years: 5 = 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.

CEMSIS 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)

Data Format [number]

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

Technical Information

<table>
<thead>
<tr>
<th>Data Type</th>
<th>xs:integer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain (Simple Type)</td>
<td>GCSMotor</td>
</tr>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
</tr>
<tr>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

Required in XSD No
Minimum Constraint 1 Maximum Constraint 6

XSD Structure: (1) Each element is 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
- Patients up to 5 years: 1 = None
- Patients up to 5 years: 2 = Extensor posturing in response to painful stimulation
- Patients up to 5 years: 3 = Flexor posturing in response to painful stimulation
- Patients up to 5 years: 4 = General withdrawal in response to painful stimulation
- Patients up to 5 years: 5 = Localization of painful stimulation
- Patients up to 5 years: 6 = Spontaneous
- Patients >5 years: 1 = None
- Patients >5 years: 2 = Extensor posturing in response to painful stimulation
- Patients >5 years: 3 = Flexor posturing in response to painful stimulation
- Patients >5 years: 4 = General response to painful stimulation
- Patients >5 years: 5 = Localization of painful stimulation
- Patients >5 years: 6 = Obeys commands with appropriate motor responses

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
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 score(s).

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>TotalGCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

Required in XSD No
Minimum Constraint 1
Maximum Constraint 15

XSD Structure: Each element is 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

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

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.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACE</td>
<td>No particular expression or smile</td>
<td>Occasional grimace or frown, withdrawn, disinterested</td>
</tr>
<tr>
<td>LEGS</td>
<td>Normal position or relaxed</td>
<td>Uneasy, restless, tense</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Lying quietly, normal position, moves easily</td>
<td>Squirming, tense, shifting back and forth, hesitant to move, guarding</td>
</tr>
<tr>
<td>CRY</td>
<td>No cry/moan (awake or asleep)</td>
<td>Moans or whimpers, occasional cries, sighs or complaint</td>
</tr>
<tr>
<td>CONSOLABILITY</td>
<td>Calm, content, relaxed, needs no consoling</td>
<td>Reassured by hugging, talking to; distractible</td>
</tr>
</tbody>
</table>

- 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.


**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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>RTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes, but null value is blank or empty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required in XSD</th>
<th>No</th>
<th>Minimum Constraint</th>
<th>0</th>
<th>Maximum Constraint</th>
<th>12</th>
</tr>
</thead>
</table>

XSD Structure: Each element is 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.

CEMSIS 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)

Data Format [number]

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>EstimatedBodyWeight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>1</td>
</tr>
</tbody>
</table>

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)

Data Format [combo] single-choice

Definition
The medication given to the patient

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>MedicationsGiven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
- Normal Saline
- 25% Dextrose
- 50% Dextrose
- Glucose/Sugar Solutions
- Activated Charcoal
- Adenosine
- Aerosolized or nebulized beta-2 specific bronchodilator
- Amiodarone
- Amyl Nitrate
- Aspirin
- Atropine Sulfate
- Blood & Blood Products
- Calcium Chloride
- Diazepam (Valium®)
- Diphenhydramine Hydrochloride (Benadryl®)
- Dopamine Hydrochloride
- Epinephrine 1:1000
- Epinephrine 1:10,000
- Furosemide (Lasix®)
- Glucagon
- Glycoprotein IIb/IIIa Receptor Inhibitors
- Heparin
- Ipratropium Bromide (Atrovent®)
- Lidocaine Hydrochloride
- Lorazepam
- Mannitol
- Midazolam
• Magnesium Sulfate
• Morphine Sulfate
• Naloxone Hydrochloride
• Nitroglycerin
• Nitrous Oxide
• Oxygen
• Oxytocin (Pitocin®)
• Procainamide
• Potassium Chloride
• Pralixome Chloride 2 (2 PAM)
• Rocuronium Bromide (Zemuron®)
• Sodium Bicarbonate
• Sodium Thiosulfate
• Succinylcholine Chloride (Anectine)
• Syrup of Ipecac
• Terbutaline Sulfate
• Tissue Plasminogen Activator
• Total Parenteral Nutrition
• Verapamil

Additional Information
List created from Medications (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)

Data Format [combo] single-choice

Definition
The route that the medication was administered to the patient.

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>MedicationAdministeredRoute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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
- Endotracheal tube
- Gastrostomy tube
- Inhalation
- Intramuscular
- Intrasureous
- Intraocular
- Intravenous
- Nasal
- Nasal prongs
- Nasogastric
- Ophthalmic
- Oral
- Other/miscellaneous
- Otic
- Re-breather mask
- Rectal
- Subcutaneous
- Sublingual
- Topical
- Tracheostomy
- Transdermal
- Urethral
- Ventimask
- 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.

CEMSIS to NEMSIS 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)*

**Data Format** [number]

**Definition**
The dose or amount of medication given to the patient

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:decimal</th>
<th>XSD Domain (Simple Type)</th>
<th>MedicationDosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
</tbody>
</table>

- **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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>MedicationDosageUnits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
</tbody>
</table>

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
- GMS
- Inches
- IU
- KVO (TKO)
- LITERS
- LPM
- MCG
- MCG/KG/MIN
- MEQ
- MG
- MG/KG/MIN
- ML
- ML/HR
- Standard Metered Dose
- 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)

Data Format [combo] single-choice

Definition
The patient’s response to the medication. See also “Medication Complication” E18_08.

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>ResponseToMedication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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
• Improved
• Unchanged
• 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)

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>MedicationComplication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry Configuration</td>
<td>(1) Yes, via structure.  (2) Yes : Accepts Null</td>
<td>Yes for each E14_01 Date/Time</td>
<td></td>
</tr>
</tbody>
</table>

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
  - None
  - Altered Mental Status
  - Apnea
  - Bleeding
  - Bradycardia
  - Diarrhea
  - Extravasation
  - Hypertension
  - Hyperthermia
  - Hypotension
  - Hypoxia
  - Injury
  - Itching/Urticaria
  - Nausea
  - Other
  - Respiratory Distress
  - Tachycardia
  - 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
PROCEDURE

Level I (Providers currently on a paper based system)

Data [combo] single-choice

Definition
The procedure performed on the patient.

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:decimal</th>
<th>XSD Domain (Simple Type)</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum 0</td>
<td>Maximum 1,000</td>
</tr>
</tbody>
</table>

Multiple Entry Yes, via structure
Accepts Null Yes

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  • 1) Bleeding control
  • 2) Wound care
  • 3) Blood sampling
  • 4) CPR
  • 5) EKG
  • 6) Defibrillation (manual)
  • 7) Defibrillation (auto)
  • 8) Defibrillation (semi-automatic)
  • 9) EKG monitor
  • 10) Synchronized cardioversion
  • 11) Pacing
  • 12) Precordial thump
  • 13) Pre-existing devices
  • 14) Removal of foreign body
  • 15) Vagal maneuver(s)
  • 16) Oxygen by mask
  • 17) Oxygen by cannula
  • 18) Bag/Valve/Mask
  • 19) Oropharyngeal airway
  • 20) Nasopharyngeal airway
  • 21) Esophageal airway
  • 22) Esophageal/tracheal airway
  • 23) Endotracheal intubation
  • 24) Intubation, other (stoma, nasal)
  • 25) Needle Cricothyrotomy
  • 26) Needle Thoracostomy
• 27) Rapid Sequence Induction
• 28) Monitor thoracostomy tube(s)
• 29) Assisted ventilation (positive pressure)
• 30) Suction
• 31) NG\OG tube
• 32) Pulse Oximetry
• 33) End Tidal CO2
• 34) Saline lock
• 35) Intravenous catheter
• 36) Monitor pre-existing vascular access
• 37) Intraosseous catheter
• 38) Monitor and adjust IV solutions containing nitroglycerine
• 39) Monitor and adjust IV solutions containing heparin
• 40) Monitor and adjust IV solutions containing potassium
• 41) Obstetrical delivery
• 42) Traction splint
• 43) Pneumatic Anti-Shock Garment
• 44) Splint of extremity (non-traction)
• 45) Spinal precautions
• 46) Restraints

Additional Information
List created from Procedures (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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Number of Procedure Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td>Minimum Constraint</td>
<td>-25</td>
</tr>
<tr>
<td>Maximum Constraint</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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)

Data  [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Yes No Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>Yes, via structure</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Field Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-25</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>-20</td>
<td>Not Recorded</td>
</tr>
<tr>
<td>-15</td>
<td>Not Reporting</td>
</tr>
<tr>
<td>-10</td>
<td>Not Known</td>
</tr>
<tr>
<td>-5</td>
<td>Not Available</td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Altered Mental Status</td>
<td></td>
</tr>
<tr>
<td>Apnea</td>
<td></td>
</tr>
<tr>
<td>Bleeding</td>
<td></td>
</tr>
<tr>
<td>Bradycardia</td>
<td></td>
</tr>
<tr>
<td>Diarrhea</td>
<td></td>
</tr>
<tr>
<td>Esophageal Intubation- immediately</td>
<td></td>
</tr>
<tr>
<td>Esophageal Intubation-other</td>
<td></td>
</tr>
<tr>
<td>Extravasation</td>
<td></td>
</tr>
<tr>
<td>Hyperthermia</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
</tr>
<tr>
<td>Hypoxia</td>
<td></td>
</tr>
<tr>
<td>Hypotension</td>
<td></td>
</tr>
<tr>
<td>Itching/Urticaria</td>
<td></td>
</tr>
<tr>
<td>Injury</td>
<td></td>
</tr>
<tr>
<td>Tachycardia</td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
</tr>
<tr>
<td>Respiratory Distress</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**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)

**Data**  [text]

**Definition**
The destination the patient was delivered or transferred to

**Technical Information**

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>Destination Transferred To ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>No</td>
<td>Minimum Constraint</td>
<td>2</td>
</tr>
</tbody>
</table>

**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)

Data  [text]

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:string</th>
<th>XSD Domain (Simple Type)</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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)

Data  [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>IncidentPatientDisposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>No</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
- Response cancelled
- Patient dead upon arrival of EMS responders
- No patient found
- No treatment required
- Patient/parent refused care and transport
- Treated and not transported by EMS personnel
- Transferred care to other EMS unit
- Transported to receiving facility
- Treated, Transported by Law Enforcement
- Treated, Transported by Private Vehicle
- Transported but patient/parent refused care
- Discontinued resuscitation
- Treated but patient/parent refused transport

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

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Transport Mode From Scene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Initial Lights and Sirens, Downgraded to No Lights or Sirens
  - Initial No Lights or Sirens, Upgraded to Lights and Sirens
  - Lights and Sirens
  - 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)

Data [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Reason For Choosing Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
  - Closest Facility
  - Diversion
  - Family Choice
  - Insurance Status
  - Law Enforcement Choice
  - On-Line Medical Direction
  - Other
  - Patient Choice
  - Patient’s Physician’s Choice
  - Protocol
  - 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)

Data [combo] single-choice

Definition
The type of destination the patient was delivered or transferred to

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Type of Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25 Not Applicable
-20 Not Recorded
-15 Not Reporting
-10 Not Known
-5 Not Available
- Home
- Hospital
- Medical Office/Clinic
- Morgue
- Nursing Home
- Other
- Other EMS Responder (air)
- Other EMS Responder (ground)
- 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)

Data  [combo] single-choice

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

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Emergency Department Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Field Values
-25  Not Applicable (Not Transported to ED)
-20  Not Recorded
-15  Not Reporting
-10  Not Known
-5   Not Available
-       Admitted to Hospital Floor
-       Admitted to Hospital ICU
-       Death
-       Released
-       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 how the patient was dispositioned from the hospital, if admitted.

Technical Information

<table>
<thead>
<tr>
<th>XSD Data Type</th>
<th>xs:integer</th>
<th>XSD Domain (Simple Type)</th>
<th>Hospital Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Entry</td>
<td>No</td>
<td>Accepts Null</td>
<td>Yes</td>
</tr>
<tr>
<td>Required in XSD</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Values
-25  Not Applicable
-20  Not Recorded
-15  Not Reporting
-10  Not Known
-5   Not Available
•    Death
•    Discharged
•    Transfer to Hospital
•    Transfer to Rehabilitation Facility
•    Transfer to Other
•    Transfer to Nursing Home

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.