

Nebraska Trauma Registry Data Dictionary 2012

**State Trauma Data/QA Committee
Nebraska Trauma Program**



Nebraska State Trauma Registry

Nebraska state trauma registry serves as a tool for trauma data that evaluates the continuum of trauma care from the prehospital environment through rehabilitation. Successful development of trauma care systems, which includes the use of trauma registries, has played an essential role in the significant decline in death and disability rates from injuries for our citizens in America. A trauma registry provides a means of collecting and analyzing pertinent injury epidemiologic data that can be used for the purposes of performance improvement, research, injury prevention and planning. The trauma registry includes detailed information about the cause, nature, and severity of the injury. These data elements can be evaluated, trended and linked to outcomes.

With respect to trauma care, continuous, measurable improvement of care given to the injured patient is the goal of any hospital's performance improvement system. A trauma registry is a timely, accurate, and comprehensive data source which allows for continuous monitoring of aspects of injury care provided. Trauma registry data elements have been developed through the National Trauma Data Standards to provide a consistent national database. Additional data elements may be required from state or regional trauma boards or be hospital specific. It provides information that can be used to evaluate timeliness, appropriateness, and quality of patient care.

In the U.S. there are numerous states that have trauma systems and maintain a trauma registry that include data on patients treated within trauma centers from comprehensive (Level 1) to basic (Level 4) levels. Pooling of multi-center trauma data can be utilized for multiple purposes ranging from epidemiologic reports to comparisons of trauma centers' effectiveness and evaluation of performance improvement indicators.

American College of Surgeon's Committee on Trauma has established the National Trauma Data Bank (NTDB), which collates trauma registry data from trauma centers and trauma systems in the U.S. The NTDB has the largest collection of trauma registry data ever compiled and contains over two million records from U.S trauma centers. The information contained in the NTDB has become a powerful instrument in advancing trauma care in such areas as epidemiology, injury control, research, education, acute care, and resource allocation. The goal of the NTDB is to inform the medical community, the public, and decision makers about a wide variety of issues that characterize the current state of care for injured persons.

Included in this data dictionary are data elements that are required by the state only, by both the state and NTDB and that are optional. To distinguish between required and optional elements the following designation was used. Those data elements required by the State of Nebraska are designated in the upper right corner as a STATE ELEMENT. If the data element is required by both the state and the NTDB then the element is designated as a STATE/NATIONAL ELEMENT. If there is no indication of the type of data element than this element is optional.

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Nebraska Trauma Registry Inclusion Criteria*

Whether or not the trauma team was activated, data must be entered in the trauma registry concerning every patient who meets the following criteria:

1. Had at least one of the following ICD-9 CM diagnosis codes: Injury codes in the range of 800-959.9, 994.1 (drowning), 994.7 (asphyxiation & strangulation) or 994.8 (electrocution);
2. Had trauma injuries and was admitted to the hospital from the emergency department;
3. Had trauma injuries and transferred out of the hospital;
4. Had trauma injuries and was admitted directly to the hospital, bypassing the emergency department; or
5. Had trauma injuries and died in the emergency department; or
6. Had trauma injuries and was dead on arrival in the emergency.
7. Had trauma injuries and was involved with trauma services
8. Unplanned readmission

May include 991-992.9 in registry which includes frostbite, hypothermia and heat-related injuries as optional.

Do not include poisonings by drugs, medicinal and biologic substances (960-979.9), toxic effects of substances (980-990), certain adverse effects not elsewhere classified (995-995.94), Complications of surgical and medical care (996-999.9).

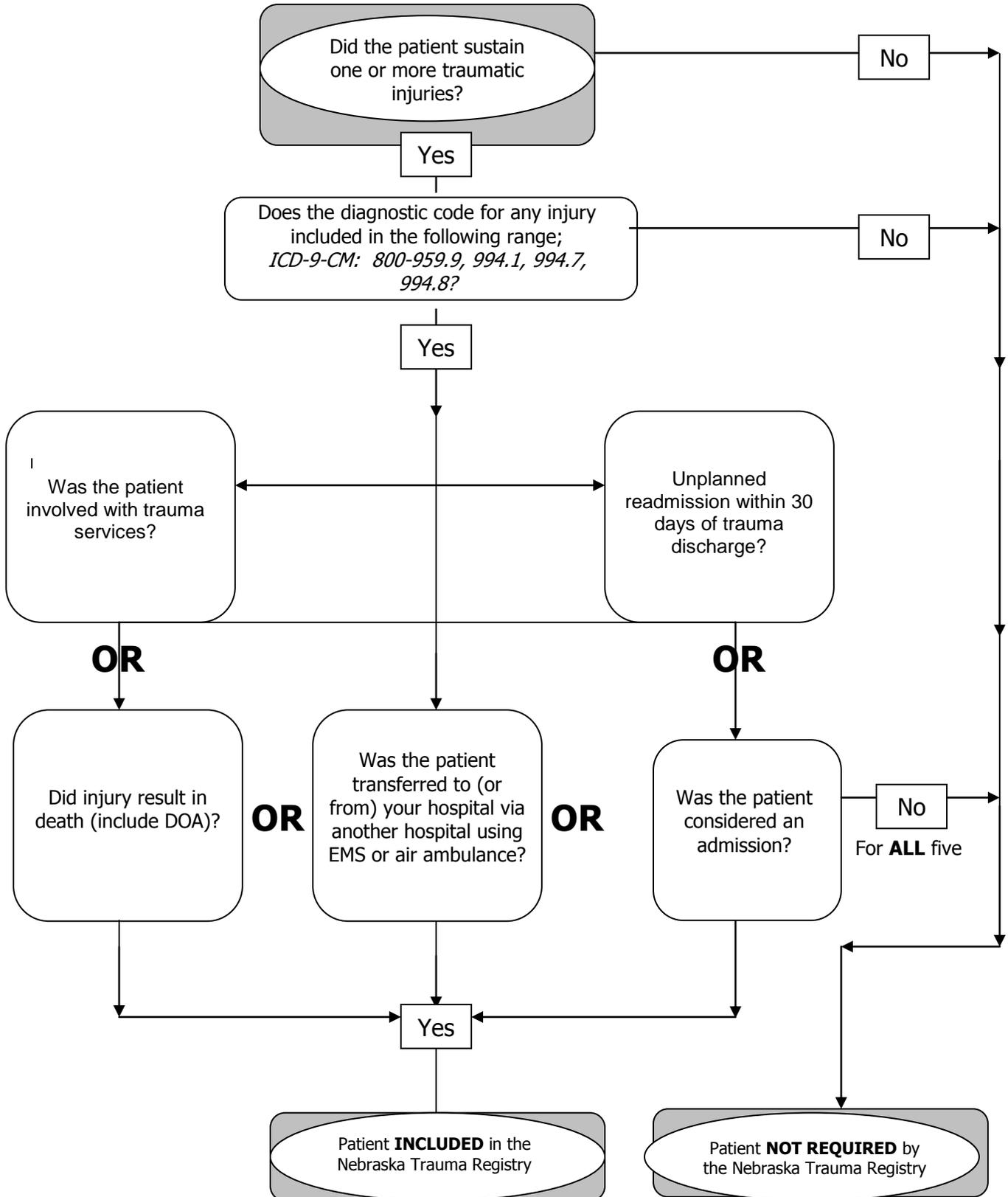
If the registrar does not enter all state required data elements, a validity warning will occur and the tab will turn red. Sometimes, you cannot access information required, no matter how hard you try. i.e. EMS providers did not complete their run times. There may be more than one source for information. i.e. patient record (Physician notes, Nursing Notes, operative reports, lab or x-ray reports), patient or family interview.

All other data elements are optional but may be useful to monitor trauma center operations or for report writing

**Inclusion Criteria from 185 NAC 9-005 Nebraska Statewide Trauma System Rules and Regulations August 14, 2011*

Required data elements are indicated in the upper right hand corner of each element page. If the element is required by the National Trauma Data Standard, then it is also required by the Nebraska Trauma Registry per Title 185 NAC 9-008.8.

Nebraska Trauma Data Standard Inclusion Criteria*



COMMON NULL VALUES

Data Format [drop-down menu] single-choice

State/National Element

Definition

These values are to be used with each element described in this document which have been defined to accept the Null Values.

Field Values

1 Not Applicable

2 Not Known/Not Recorded

Additional Information

- *Not Applicable*: This null value code applies if, at the time of patient care documentation, the information requested was “Not Applicable” to the patient, the hospitalization or the patient care event. For example, variables documenting EMS care would be “Not Applicable” if a patient self transports to the hospital (-5 NTRACS value).
- *Not Known/Not Recorded*: This null value applies if, at the time of patient care documentation, information was “Not Known” (to the patient, family, health care provider) or no value for the element was recorded for the patient. This documents that there was an attempt to obtain information but it was unknown by all parties or the information was missing at the time of documentation. For example, injury date and time may be documented in the hospital patient care report as “Unknown”. Another example, Not Known/Not Recorded should also be coded when documentation was expected, but none was provided (i.e., no EMS run sheet in the hospital record for patient transported by EMS) (-4 NTRACS value).
- For any collection of data to be of value and reliably represent what was intended, a strong commitment must be made to ensure the correct documentation of incomplete data.

Demographic Information

PATIENT'S FIRST NAME

Data Format [text]

*State Element***Definition**

Usually obtained by patient or family report, EMS record or patient record. If name unknown at time of admission and identified at later time, enter name at that time. Unknown names are usually identified at a later date.

Field Values

- Relevant value for data element

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | Element not included |

PATIENT'S MIDDLE INITIAL

Data Format [text]

State Element

Definition

Usually obtained by patient or family report, EMS record or patient record. If name unknown at time of admission and identified at later time, enter name at that time. Unknown names are usually identified at a later date.

Field Values

- Relevant value for data element

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | Element not included |

PATIENT'S LAST NAME

Data Format [text]

State Element

Definition

Usually obtained by patient or family report, EMS record or patient record. If name unknown at time of admission and identified at later time, enter name at that time. Unknown names are usually identified at a later date.

Field Values

- Relevant value for data element

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | Element not included |

PATIENT'S HOME ZIP CODE

Data Format [text]

*State/National Element***Definition**

Numeric code for the locale in which the patient resides.

Field Values

- Relevant value for data element

Additional Information

- Can be stored as a 5 or 9 digit code (XXXXX-XXXX).
- May require adherence to HIPAA regulations.
- If zip code is "Not Applicable," complete variable: Alternate Home Residence.
- If zip code is "Not Recorded/Not Known," complete variables: Patient's Home Country, Patient's Home State, Patient's Home County and Patient's Home City.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. Billing Sheet / Medical Records Coding Summary Sheet2. ED Admission Form3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

PATIENT'S HOME COUNTRY

Data Format [drop-down menu] single-choice

State/National Element

Definition

The country where the patient resides.

Field Values

- Relevant value for data element (two digit alpha country code)

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."
- Values are two character fields representing a country (e.g., US).
- If country outside of US then select "Not Applicable", and complete variable: Alternate Home Residence

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. Billing Sheet / Medical Records Coding Summary Sheet2. ED Admission Form3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

PATIENT'S HOME STATE

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The state (territory, province, or District of Columbia) where the patient resides.

Field Values

- Relevant value for data element

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. ED Admission Form2. Billing Sheet / Medical Records Coding Summary Sheet3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

PATIENT'S HOME COUNTY

Data Format [drop-down menu] single-choice

State/National Element

Definition

The patient's county (or parish) of residence.

Field Values

- Relevant value for data element

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. Billing Sheet / Medical Records Coding Summary Sheet2. ED Admission Form3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

PATIENT'S HOME CITY

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The patient's city (or township, or village) of residence.

Field Values

- Relevant value for data element

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. ED Admission Form2. Billing Sheet / Medical Records Coding Summary Sheet3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

PATIENT'S SOCIAL SECURITY NUMBER

Data Format [numeric]

*State Element***Definition**

Patient's social security number.

Field Values

- 10 digit number.

Additional Information

- Only required if available.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital)4. Facility specific information (History and Physical report) | Element not included |

PATIENT'S STREET ADDRESS

Data Format [text]

*State Element***Definition**

The number and street name where the patient most often resides.

Field Values

- Appropriate values for this field

Additional Information

- If unknown leave blank. Can lookup cities and zip codes. If city and state known, but specific zip not known, use zip code from city list. If incident location resides outside of formal city boundaries, report nearest city/town.
- Can make favorite location lists for frequently used locations.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | Element not included |

ALTERNATE HOME RESIDENCE

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

Documentation of the type of patient without a home zip code.

Field Values

1 Homeless

3 Migrant Worker

2 Undocumented Citizen

4 Foreign Visitor

Additional Information

- Only completed when ZIP code is "Not Applicable."
- Homeless is defined as a person who lacks housing. The definition also includes a person living in transitional housing or a supervised public or private facility providing temporary living quarters.
- Undocumented Citizen is defined as a national of another country who has entered or stayed in another country without permission.
- Migrant Worker is defined as a person who temporarily leaves his/her principal place of residence within a country in order to accept seasonal employment in the same or different country.
- Foreign Visitor is defined as any person legally visiting a country other than his/her usual place of residence for any reason.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. Billing Sheet / Medical Records Coding Summary Sheet 2. ED Admission Form 3. EMS Run Sheet 4. Triage Form / Trauma Flow Sheet 5. ED Nurses' Notes |

DATE OF BIRTH

Data Format [date]

*State/National Element***Definition**

The patient's date of birth. Usually obtained by patient or family report, EMS record or patient record. If unknown at time of admission and identified later, enter then.

Field Values

- Relevant value for data element

Additional Information

- Collected as MM-DD-YYYY.
- If age is less than 24 hours, complete variables: Age and; Age Units.
- If "Not Recorded/Not Known" complete variables: Age and; Age Units.
- Used to calculate patient age in days, months, or years.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. ED Admission Form 2. Billing Sheet / Medical Records Coding Summary Sheet 3. EMS Run Sheet 4. Triage Form / Trauma Flow Sheet 5. ED Nurses' Notes |

AGE**Data Format** [numeric]**State/National Element****Definition**

The patient's age at the time of injury (best approximation).

Field Values

- Relevant value for data element (range 0-120).

Additional Information

- Used to calculate patient age in hours, days, months, or years.
- Automatically calculated if enter injury date and DOB. If DOB is unknown; enter an estimated age (best approximation) 0-120. Usually obtained by patient or family report, EMS record or patient record.
- If DOB is unknown; enter an estimated age (best approximation)
- Must also complete variable: Age Units

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. ED Admission Form 2. Billing Sheet / Medical Records Coding Summary Sheet 3. EMS Run Sheet 4. Triage Form / Trauma Flow Sheet 5. ED Nurses' Notes |

AGE UNITS**Data Format** [drop-down menu] single-choice**State/National Element****Definition**

The units used to document the patient's age (Hours, Days, Months, Years).

Field Values

| | |
|---------|----------|
| 1 Hours | 3 Months |
| 2 Days | 4 Years |

Additional Information

- Default is Years
- Used to calculate patient age in hours, days, or months.
- Only completed when age is less than 1 year or "Not Recorded/Not Known."
- Must also complete variable: Age
- The system automatically calculates age and age units. NTRACS system generates age by year with decimal.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. ED Admission Form 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Triage Form / Trauma Flow Sheet 4. EMS Run Sheet 5. ED Nurses' Notes |

RACE**Data Format** [drop-down menu] multiple-choice**State/National Element****Definition**

The patient's race.

Field Values

- | | |
|---|-----------------------------|
| 1 Asian | 4 American Indian |
| 2 Native Hawaiian or Other Pacific Islander | 5 Black or African American |
| 3 Other Race | 6 White |

Additional Information

- Patient race should be based upon self-report or identified by a family member.
- The maximum number of races that may be reported for an individual patient is 2.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. ED Admission Form 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Triage Form / Trauma Flow Sheet 4. EMS Run Sheet 5. ED Nurses' Notes |

ETHNICITY

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The patient's ethnicity.

Field Values

1 Hispanic or Latino

2 Not Hispanic or Latino

Additional Information

- Patient ethnicity should be based upon self-report or identified by a family member.
- The maximum number of ethnicities that may be reported for an individual patient is 1.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Patient Information/Face Sheet 2. Admission Form 3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none"> 1. ED Admission Form 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Triage Form / Trauma Flow Sheet 4. EMS Run Sheet 5. ED Nurses' Notes |

SEX

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The patient's sex.

Field Values

1 Male

2 Female

Additional Information

- Patients who have undergone a surgical and/or hormonal sex reassignment should be coded using the current assignment.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Patient Information/Face Sheet2. Admission Form3. Referring Hospital Record (first, second, and third referring hospital) | <ol style="list-style-type: none">1. ED Admission Form2. Billing Sheet / Medical Records Coding Summary Sheet3. EMS Run Sheet4. Triage Form / Trauma Flow Sheet5. ED Nurses' Notes |

Injury Information

INJURY INCIDENT DATE

Data Format [date]

*State/National Element***Definition**

The date the injury occurred.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.
- Estimates of date of injury should be based upon report by patient, witness, family, or health care provider. Other proxy measures (e.g., 911 call time) should not be used.
- Usually obtained by patient or family report, EMS record or patient record.
- If an exact date is unknown, but patient gives an estimate of # days, # weeks or # months; then subtract that from present date.
- This date is used to calculate age at time of injury once you enter DOB. If injury date is unknown or not entered, must manually enter patient's age.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none"> 1. EMS Run Sheet/first ambulance; not transferring EMS unit 2. First referring facility if applicable, 3. Trauma History and Physical (handwritten) 4. Hospital ED nursing notes 5. Hospital History & Physical 6. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. ED Nurses' Notes |

INJURY INCIDENT TIME

Data Format [time]

State/National Element

Definition

The time the injury occurred.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Usually provided by patient or witness report, EMS record or patient record. Time may be an approximate (30 minutes, 3 hrs, etc).
- If injury occurred just prior to EMS activation, use time (5 minutes) prior to EMS unit notified.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. EMS Run Sheet/first ambulance; not transferring EMS unit2. First referring facility if applicable,3. Trauma History and Physical (handwritten)4. Hospital ED nursing notes5. Hospital History & Physical6. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. ED Nurses' Notes |

PRIMARY E-CODE

Data Format [numeric]

State/National Element

Definition

E-code used to describe the mechanism (or external factor) that caused the injury event.

Field Values

- Relevant ICD-9-CM code value for injury event.

Additional Information

- E-codes are used to auto-generate two calculated fields: Trauma Type (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix).
- Activity codes should not be reported in this field.
- E-code used to describe the mechanism (or external factor) that caused the injury event. Sometimes, patient has two causes of injury i.e. fall from building and impaled by object.
- The Primary E-code should describe the main reason a patient is admitted to the hospital. Do not use E-codes 849-849.9 in primary E-code or additional E-code field because those are used as location site E-code which is a different data field.
- Include the following external causes of injury (E-code) ranges (fourth digit will further describe, ie 881.0-fall from ladder):
 - (E800-E807) [Railway accidents](#)
 - (E810-E819) [Motor vehicle traffic accidents](#)
 - (E820-E825) Motor vehicle non-traffic accidents
 - (E826-E829) Other road vehicle accidents
 - (E830-E838) Water transport accidents
 - (E840-E845) Air and space transport accidents
 - (E846-E848) Vehicle accidents not elsewhere classifiable
 - (E850-E858) Accidental [poisoning](#) by [drugs](#), medicinal substances, and biologicals
 - (E860-E869) Accidental poisoning by other solid and liquid substances, gases, and vapors
 - (E880-E888) Accidental [falls](#)
 - (E890-E899) Accidents caused by [fire](#) and [flames](#)
 - (E900-E909) Accidents due to natural and [environmental factors](#)
 - (E910-E915) Accidents caused by [submersion](#), [suffocation](#), and [foreign bodies](#)
 - (E916-E928) Other accidents
 - (E929) [Late effects](#) of accidental injury
 - (E950-E959) [Suicide](#) and self-inflicted injury
 - (E960-E969) [Homicide](#) and injury purposely inflicted by other persons
 - (E970-E978) [Legal](#) intervention
 - (E979) [Terrorism](#)
 - (E980-E989) Injury undetermined whether accidentally or purposely inflicted
 - (E990-E999) Injury resulting from operations of [war](#)

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. Billing Form (just starting point, need to refer to ICD-9 book or online E-code book)2. EMS Form if present3. First referring facility if applicable4. Hospital ED nursing notes5. If transferred; the first referring hospital6. Hospital History and Physical | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. Billing Sheet / Medical Records Coding Summary Sheet4. ED Nurses' Notes |

Other Associated Elements

1. Location E-code
2. Additional E-code

LOCATION E-CODE

Data Format [numeric]

*State/National Element***Definition**

E-code used to describe the place/site/location of the injury event (E 849.X).

Field Values

- Relevant ICD-9-CM code value for injury location are as follows:

E849.0 Home
 E849.1 Farm
 E849.2 Mine and quarry
 E849.3 Industrial place and premises
 E849.4 Place for recreation and sport
 E849.5 Street and highway
 E849.6 Public building
 E849.7 Residential institution
 E849.8 Other specified places
 E949.9 Unspecified place

Additional Information

- ICD-9-CM Codes were retained over ICD-10 due to CMS's continued use of ICD-9.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. EMS Form if present from scene; the first ambulance; not transferring EMS unit 2. First referring Facility if applicable (first, second, third) 3. Hospital ED nursing notes 4. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. Billing Sheet / Medical Records Coding Summary Sheet 4. ED Nurses' Notes |

ADDITIONAL E-CODE

Data Format [numeric]

*State/National Element***Definition**

Additional E-code used to describe, for example, a mass casualty event or other external cause.

Field Values

- Relevant ICD-9-CM code value for injury event

Additional Information

- E-codes are used to auto-generate two calculated fields: Trauma Type: (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix).
- ICD-9-CM Codes were retained over ICD-10 due to CMS's continued use of ICD-9.
- Follow the coding hierarchy: 1) Cataclysmic events such as blizzards and hurricanes take precedence over the other causes of injury. 2) Transport accidents take precedence except for cataclysmic events.
- Do not use E-codes 849-849.9 in primary E-code or additional E-code field because those are used as location site E-code which is a different data field.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Billing Form (just starting point, need to refer to ICD-9 book or online E-code book) 2. EMS Form if present 3. First Referring Facility if applicable 4. Hospital ED nursing notes 5. If transferred; the first referring hospital 6. Hospital History and Physical | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. Billing Sheet / Medical Records Coding Summary Sheet 4. ED Nurses' Notes |

INCIDENT LOCATION ZIP CODE

Data Format [numeric]

*State/National Element***Definition**

The ZIP code of the incident location.

Field Values

- Relevant value for data element

Additional Information

- Can be stored as a 5 or 9 digit code (XXXXX-XXXX).
- If home (849.0) listed as location site, home zip code from demographic page will be forwarded. Can lookup city and zip codes. If city and state known, but specific zip not known, use zip code from city list.
- If incident location resides outside of formal city boundaries, report nearest city/town.
- Favorite location lists for frequently used locations can be developed.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none"> 1. EMS form if present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility if applicable 3. Hospital ED nurses' notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. ED Nurses' Notes |

INCIDENT COUNTRY

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

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

Field Values

- Relevant value for data element (two digit alpha country code)

Additional Information

- Only completed when Incident Location ZIP code is "Not Applicable" or "Not Recorded/Not Known."
- Values are two character fields representing a country (e.g., US).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. ED Nurses' Notes |

INCIDENT STATE

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The state, territory, or province where the patient was found or to which the unit responded (or best approximation).

Field Values

- Relevant value for data element

Additional Information

- Only completed when Incident Location ZIP code is "Not Applicable" or "Not Recorded/Not Known."

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. ED Nurses' Notes |

INCIDENT COUNTY

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

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

Field Values

- Relevant value for data element

Additional Information

- Only completed when Incident Location ZIP code is "Not Applicable" or "Not Recorded/Not Known."

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. ED Nurses' Notes |

INCIDENT CITY

Data Format [drop-down menu] single-choice

State/National Element**Definition**

The city or township where the patient was found or to which the unit responded.

Field Values

- Relevant value for data element

Additional Information

- *Only completed when Incident Location ZIP code is "Not Applicable" or "Not Recorded/Not Known."*
- If incident location resides outside of formal city boundaries, report nearest city/town.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. ED Nurses' Notes |

SUPPLEMENTAL CAUSE OF INJURY

Data Format [drop-down menu] single-choice

Definition

General cause of injury for report writing purposes.

Field Values

- Pop-up list

| | |
|---|------------------------|
| Accident (use for other causes, if not in list below) | Jet Ski |
| Aircraft | Lightening |
| All-terrain vehicle | Motor Pedestrian Crash |
| Assault | Motor Vehicle Crash |
| Bicycle Crash | Motorcycle Crash |
| Boating | Pending |
| Burn | Police |
| Child Abuse | Rape |
| Dirt bike | Rollerblading |
| Diving | Roller Skating |
| Domestic Abuse | Scooter |
| Drowning | Skateboarding |
| Electrical Injury | Sky diving |
| Fall | Sledding |
| Farm/heavy equipment/machine | Snowboarding |
| Fire | Snow mobile |
| Fireworks related | Sports related |
| Frostbite | Stab Wound |
| Gunshot wound | Tornado |
| Hanging | Train |
| Heat-related | Trampoline |
| Industrial incident | Water skiing |
| Injured by animal | |

Additional Information

- Additional cause of injury information for report writing purposes

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| 1. See Ecode | Element not included |

INJURY DESCRIPTION

Data Format [text]

Definition

To add additional details that are not entered in other injury data elements.

Field Values

Text field character limit of 762

Additional Information

- User may add additional details of the cause of injury that are not entered in other injury data elements i.e., rollover, ejected, death of occupant, steering wheel bent, windshield starred, significant compartment intrusion, major vehicular damage, icy conditions, tripped over dog, no handrails on stairway, syncopal episode lead to incident, etc.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS form if present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History & Physical5. If transferred; the first referring hospital | Element not included |

PROTECTIVE DEVICES

Data Format [drop-down menu] multiple-choice

State/National Element

Definition

Protective devices (safety equipment) in use or worn by the patient at the time of the injury.

Field Values

| | |
|---|--|
| 1 None | 6 Child Restraint (booster seat or child car seat) |
| 2 Lap Belt | 7 Helmet (e.g., bicycle, skiing, motorcycle) |
| 3 Personal Floatation Device | 8 Airbag Present |
| 4 Protective Non-Clothing Gear (e.g., shin guard) | 9 Protective Clothing (e.g., padded leather pants) |
| 5 Eye Protection | 10 Shoulder Belt |
| | 11 Other |

Additional Information

- Check all that apply.
- For each element select yes or no, maybe required to completed additional details if yes is selected.
- If “Child Restraint” is present, complete variable “Child Specific Restraint.”
- If “Airbag” is present, complete variable “Airbag Deployment.”
- Lap Belt should be used to include those patients that are restrained, but not further specified.
- If chart indicates “3 point restraint” choose 2 and 10.
- This may be by self/witness or EMS record used for the source of information.
- Not Applicable is default since many causes of injury do not have applicable protective equipment.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|------------------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit | 1. EMS Run Sheet |
| 2. First Referring Facility (if applicable) | 2. Triage Form / Trauma Flow Sheet |
| 3. Hospital ED Nurses' Notes | 3. ED Nurses' Notes |
| 4. Hospital History and Physical | |
| 5. If transferred; the first referring hospital | |

CHILD SPECIFIC RESTRAINT

Data Format [drop down menu] single-choice

*State/National Element***Definition**

Protective child restraint devices used by patient at the time of injury.

Field Values

1 Child Car Seat

3 Child Booster Seat

2 Infant Car Seat

Additional Information

- This may be by self/witness or EMS record used for the source of information.
- In the state vendor system this data field is a two step process, if 'Child Restraint' is indicated as a yes then a second step is needed to complete this field. Need to indicate additional details of type of child restraint.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet 2. Triage Form / Trauma Flow Sheet 3. ED Nurses' Notes |

AIRBAG DEPLOYMENT

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

Indication of airbag deployment during a motor vehicle crash.

Field Values

1 Airbag Not Deployed

3 Airbag Deployed Side

2 Airbag Deployed Front

4 Airbag Deployed Other (knee, airbelt, curtain, etc.)

Additional Information

- Evidence of the use of airbag deployment may be reported or observed.
- In the state vendor system this data field is a two-step process, if 'Airbag Deployment' is indicated as a yes then second steps is needed to complete this field. Need to indicate additional details of airbag deployment.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|------------------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit | 1. EMS Run Sheet |
| 2. First Referring Facility (if applicable) | 2. Triage Form / Trauma Flow Sheet |
| 3. Hospital ED Nurses' Notes | 3. ED Nurses' Notes |
| 4. Hospital History and Physical | |
| 5. If transferred; the first referring hospital | |

Pre-hospital Information

ARRIVED FROM

Data Format [drop-down menu] single-choice

State Element

Definition

The location the patient arrived from.

Field Values

- Clinic/MD office
- Home
- Jail
- Nursing home
- Referring hospital
- Scene

Additional Information

- The location where EMS picked up the patient and transported them from.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. EMS Form if present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

TRANSPORT MODE

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The mode of transport delivering the patient to your hospital.

Field Values

| | |
|------------------------|----------------------------------|
| 1 Ground Ambulance | 4 Private/Public Vehicle/Walk-in |
| 2 Helicopter Ambulance | 5 Police |
| 3 Fixed-wing Ambulance | 6 Other |

Additional Information

- When tiered response is used, you may have more than one EMS provider to enter.
- The transport mode delivering the patient to your hospital-ambulance, helicopter, or fixed-wing.
- In NE, ALS providers have EMS service # in 5000 range; BLS providers have EMS # in 1000 range..
- If 'other' field value is selected, a text box will appear to complete the field please type a description of the method of transport.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

INTER-FACILITY TRANSFER

Data Format [drop-down menu] single-choice

State/National Element**Definition**Was the patient transferred to your facility from another acute care facility?**Field Values**

Yes

No

Additional Information

- Patients transferred from a private doctor's office, stand-alone ambulatory surgery center, or delivered to your hospital by a non-EMS transport are not considered an inter-facility transfers.
- Outlying facilities purporting to provide emergency care services or utilized to stabilize a patient are considered acute care facilities.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit | EMS Run Sheet |
| 2. First Referring Facility (if applicable) | |
| 3. Hospital ED Nurses' Notes | |
| 4. Hospital History and Physical | |
| 5. If transferred; the first referring hospital | |

EMS SERVICE NAME

Data Format [drop-down menu]

*State Element***Definition**

Legal name of EMS service provider who transported patient.

Field Values

- Relevant value for data element.

Additional Information

- Dropdown menu is for different states and services. Nebraska is used for default state. If tab from state to city of service name and enter first initial, will make the dropdown from first initial down. If hit dropdown and then first initial, will need to scroll down to find choice.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. EMS form if present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History & Physical5. If transferred; the first referring hospital | Element not included |

EMS DISPATCH DATE

Data Format [date]

*State/National Element***Definition**

The date the unit *transporting to your hospital* was notified by dispatch.

- For inter facility transfer patients, this is the date on which the unit transporting the patient to your facility from the transferring facility was notified by dispatch or assigned to this transport.
- For patients transported from the scene of injury to your hospital, this is the date on which the unit transporting the patient to your facility from the scene was dispatched.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.
- Used to auto-generate an additional calculated field: Total EMS Time (elapsed time from EMS dispatch to hospital arrival).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

EMS DISPATCH TIME

Data Format [time]

State/National Element

Definition

The time the unit *transporting to your hospital* was notified by dispatch.

- For inter facility transfer patients, this is the time at which the unit transporting the patient to your facility from the transferring facility was notified by dispatch.
- For patients transported from the scene of injury to your hospital, this is the time at which the unit transporting the patient to your facility from the scene was dispatched.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate an additional calculated field: Total EMS Time (elapsed time from EMS dispatch to hospital arrival).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

EMS UNIT ARRIVAL DATE AT SCENE OR TRANSFERRING FACILITY

Data Format [date]

State/National Element

Definition

The date the unit transporting to your hospital arrived on the scene/transferring facility (the time the vehicle stopped moving).

- For inter facility transfer patients, this is the date on which the unit transporting the patient to your facility from the transferring facility arrived at the transferring facility (arrival is defined at date/time when the vehicle stopped moving).
- For patients transported from the scene of injury to your hospital, this is the date on which the unit transporting the patient to your facility from the scene arrived at the scene (arrival is defined at date/time when the vehicle stopped moving).

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY
- Used to auto-generate two additional calculated fields: Total EMS Response Time (elapsed time from EMS dispatch to scene arrival) & Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

EMS UNIT ARRIVAL TIME AT SCENE OR TRANSFERRING FACILITY

Data Format [time]

State/National Element

Definition

The time the unit *transporting to your hospital* arrived on the scene (the time the vehicle stopped moving).

- For inter facility transfer patients, this is the time at which the unit transporting the patient to your facility from the transferring facility arrived at the transferring facility (arrival is defined at date/time when the vehicle stopped moving).
- For patients transported from the scene of injury to your hospital, this is the time at which the unit transporting the patient to your facility from the scene arrived at the scene (arrival is defined at date/time when the vehicle stopped moving).

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate two additional calculated fields: Total EMS Response Time (elapsed time from EMS dispatch to scene arrival) & Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

EMS UNIT DEPARTURE DATE FROM SCENE OR TRANSFERRING FACILITY

Data Format [date]

State/National Element

Definition

The date the unit *transporting to your hospital* left the scene (the time the vehicle started moving).

- For inter facility transfer patients, this is the date on which the unit transporting the patient to your facility from the transferring facility departed from the transferring facility (departure is defined at date/time when the vehicle started moving).
- For patients transported from the scene of injury to your hospital, this is the date on which the unit transporting the patient to your facility from the scene departed from the scene (arrival is defined at date/time when the vehicle started moving).

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.
- Used to auto-generate an additional calculated field: Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

EMS UNIT DEPARTURE TIME FROM SCENE OR TRANSFERRING FACILITY

Data Format [time]

State/National Element

Definition

The time the unit *transporting to your hospital* left the scene (the time the vehicle started moving).

- For inter facility transfer patients, this is the time at which the unit transporting the patient to your facility from the transferring facility departed from the transferring facility (departure is defined at date/time when the vehicle started moving).
- For patients transported from the scene of injury to your hospital, this is the time at which the unit transporting the patient to your facility from the scene departed from the scene (arrival is defined at date/time when the vehicle started moving).

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate an additional calculated field: Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

INITIAL FIELD SYSTOLIC BLOOD PRESSURE

Data Format [numeric]

*State/National Element***Definition**

First recorded systolic blood pressure measured at the scene of injury

Field Values

- Relevant value for data element range (0-299).

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Additional systolic BP optional but may be used if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

INITIAL FIELD DIASTOLIC BLOOD PRESSURE

Data Format [numeric]

Definition

First recorded diastolic blood pressure measured at the scene of injury

Field Values

- Relevant value for data element range (0-299).

Additional Information

- Optional
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Additional diastolic BP optional but may be used if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

INITIAL FIELD PULSE RATE

Data Format [numeric]

*State/National Element***Definition**

First recorded pulse measured at the scene of injury (palpated or auscultated), expressed as a number per minute.

Field Values

- Relevant value for data element. Range (0-299)

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Additional pulse rate optional but may be useful if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

INITIAL FIELD RESPIRATORY RATE

Data Format [numeric]

State/National Element

Definition

First recorded respiratory rate measured at the scene of injury (expressed as a number per minute).

Field Values

- Relevant value for data element. Range 0-99.

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Additional respiratory rate optional but may be useful if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

INITIAL FIELD OXYGEN SATURATION

Data Format [numeric]

*State/National Element***Definition**

First recorded oxygen saturation measured in the pre-hospital setting (expressed as a percentage).

Field Values

- Relevant value for data element.(Range 0-100)

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Value should be based upon assessment before administration of supplemental oxygen.
- Additional oxygen saturations may be useful if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet |

INITIAL FIELD GCS - EYE

Data Format [numeric]

*State/National Element***Definition**

First recorded Glasgow Coma Score (Eye) measured at the scene of injury.

Field Values

1 No eye movement when assessed

3 Opens eyes in response to verbal stimulation

2 Opens eyes in response to painful stimulation

4 Opens eyes spontaneously

Additional Information

- Used to calculate Overall GCS - EMS Score.
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

INITIAL FIELD GCS - VERBAL

Data Format [numeric]

State/National Element

Definition

First recorded Glasgow Coma Score (Verbal) measured at the scene of injury.

Field Values

Pediatric (≤ 2 years):

- | | |
|--------------------------------------|--|
| 1 No vocal response | 4 Cries but is consolable, inappropriate interactions |
| 2 Inconsolable, agitated | 5 Smiles, oriented to sounds, follows objects, Interacts |
| 3 Inconsistently consolable, moaning | |

Adult:

- | | |
|---------------------------|------------|
| 1 No verbal response | 4 Confused |
| 2 Incomprehensible sounds | 5 Oriented |
| 3 Inappropriate words | |

Additional Information

- Used to calculate Overall GCS - EMS Score.
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit | 1. EMS Run Sheet |
| 2. First Referring Facility (if applicable) | |
| 3. Hospital ED Nurses' Notes | |
| 4. Hospital History and Physical | |
| 5. If transferred; the first referring hospital | |

INITIAL FIELD GCS - MOTOR

Data Format [numeric]

*State/National Element***Definition**

First recorded Glasgow Coma Score (Motor) measured at the scene of injury.

Field ValuesPediatric (≤ 2 years):

- | | |
|---------------------|---------------------------------------|
| 1 No motor response | 4 Withdrawal from pain |
| 2 Extension to pain | 5 Localizing pain |
| 3 Flexion to pain | 6 Appropriate response to stimulation |

Adult:

- | | |
|---------------------|------------------------|
| 1 No motor response | 4 Withdrawal from pain |
| 2 Extension to pain | 5 Localizing pain |
| 3 Flexion to pain | 6 Obeys commands |

Additional Information

- Used to calculate Overall GCS - EMS Score.
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | 1. EMS Run Sheet |

INITIAL FIELD GCS - TOTAL

Data Format [numeric]

*State/National Element***Definition**

First recorded Glasgow Coma Score (total) measured in the pre-hospital setting.

Field Values

- Relevant value for data element (3-15).

Additional Information

- *Utilize only if total score is available without component scores.*
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- Many times GCS total will be recorded without components (eye, verbal, motor) i.e. GCS-11.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none"> 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit 2. First Referring Facility (if applicable) 3. Hospital ED Nurses' Notes 4. Hospital History and Physical 5. If transferred; the first referring hospital | <ol style="list-style-type: none"> 1. EMS Run Sheet |

INITIAL GCS ASSESSMENT QUALIFIERS

Data Format [drop-down menu]

State Element

Definition

Documentation of factors potentially affecting the first assessment of GCS upon arrival in the ED/hospital.

Field Values

1 Patient Chemically Sedated

3 Patient Intubated

2 Obstruction to the Patient's Eye

4 Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to eye

Additional Information

- Identifies treatments given to the patient that may affect the first assessment of GCS. This field does not apply to self-medications the patient may administer (i.e., ETOH, prescriptions, etc.).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| No hierarchy | Element not included |

REVISED TRAUMA SCORE - TOTAL

Data Format [autogenerated]

State Element

Definition

Auto calculated with systolic BP, respiratory rate, and total GCS.

Field Values

- Relevant value for data element.

Additional Information

REVISED TRAUMA SCORE

| Glasgow Coma Scale (GCS) | Systolic Blood Pressure (SBP) | Respiratory Rate (RR) | Coded Value |
|--------------------------|-------------------------------|-----------------------|-------------|
| 13-15 | >89 | 10-29 | 4 |
| 9-12 | 76-89 | >29 | 3 |
| 6-8 | 50-75 | 6-9 | 2 |
| 4-5 | 1-49 | 1-5 | 1 |
| 3 | 0 | 0 | 0 |

$$RTS = 0.9368 \text{ GCS} + 0.7326 \text{ SBP} + 0.2908 \text{ RR}$$

Values for the RTS are in the range 0 to 7.8408.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

EMS AIRWAY MANAGEMENT

Data Format [drop-down menu]

State Element

Definition

Device used to assist intubation of airway.

Field Values

- Bag and Mask
- Combitube
- Crico
- LMA
- Nasal ETT
- Oral Airway
- Oral ETT
- Trach
- King Airway
- Nasal Trumpet

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.
- If not performed, use dropdown menu for choices.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

RESPIRATORY ASSISTANCE

Data Format [drop-down menu]

Definition

Mechanical or external support of respiration.

Field Values

- Assisted
- Unassisted
- Not applicable
- Not known

Additional Information

- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded*.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

EMS DESTINATION DETERMINATION

Data Format [drop down menu]

State Element

Definition

Reason for transporting to hospital.

Field Values

- Closest facility
- Diversion
- Hospital of choice
- On-line medical direction
- Other
- Specialty resource center (trauma center or burn center)
- Not transported (tiered-response)
- Not known.

Additional Information

- When a tiered-response is used, you may have more than one EMS provider to enter.
- Enter all available data elements but indicate destination determination for transporting service (ambulance or helicopter).
- For EMS providers that do not transport patient to the hospital, enter not transported (tiered response) for destination determination. i.e., Fire Department Ambulance is first responder but determine that helicopter is needed for patient.
- Helicopter service transports patient from the scene to trauma center.
- Fire Department Ambulance service destination determination would be not transported (tiered-response).
- Helicopter service destination determination would be specialty resource center.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit | Element not included |
| 2. First Referring Facility (if applicable) | |
| 3. Hospital ED Nurses' Notes | |
| 4. Hospital History and Physical | |
| 5. If transferred; the first referring hospital | |

EMS MEDICATIONS

Data Format [drop down menu]

Definition

Medications given by pre-hospital provider.

Field Values

- Medications are listed by brand name (generic).

Additional Information

- Medications are listed by brand name (generic). If medication name is not listed, do not include. This section also includes few procedures (defibrillation, packed red blood cells, oxygen, pelvic wrap, external pacemaker)
- Select all that apply.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Scene EMS forms (not include inter-facility transferring EMS)2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical | Element not included |

EMS VITALS DATE

Data Format [date]

Definition

Date vitals were taken.

Field Values

- Relevant value for data element

Additional Information

- Optional
- Collected as MM-DD-YYYY.
- Date can be pulled from EMS date by using green arrow.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

EMS VITALS TIME

Data Format [time]

Definition

Time vitals were taken.

Field Values

- Relevant value for data element

Additional Information

- Optional
- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Hospital ED Nurses' Notes4. Hospital History and Physical5. If transferred; the first referring hospital | Element not included |

EMS REPORT COMPLETENESS

Data Format [drop-down list]

Definition

The status of the EMS report.

Field Values

- Complete
- Incomplete
- Missing

Additional Information

- NTRACS values - V - Not Recorded, X – Not Available (default)

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| 1. EMS Form | Element not included |

Referring Hospital Information

REFERRING HOSPITAL NAME

Data Format [drop-down menu]

*State Element***Definition**

The name of the referring hospital.

Field Values

- Relevant value for data element.

Additional Information

- Dropdown menu for states (NE, IA, SD, WY, CO, KS, MO, and MN)
- If tab over from state and put in first initial of city where hospital is located, then hit dropdown; initial downward in alphabetical order.
- Patient's transferred from a private doctor's office, stand-alone ambulatory surgery center are not considered an inter-facility transfer.
- Outlying facilities purporting to provide emergency care services or utilized to stabilize a patient are considered acute care facilities.
- Incomplete information cannot be entered but provides opportunity for education for referring hospital providers concerning need for complete report in future.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none"> 1. Referring Facility (if applicable), last referring hospital first 2. Transfer Form 3. History and Physical 4. Interfacility EMS Transfer Forms | Element not included |

REFERRING HOSPITAL ARRIVAL DATE

Data Format [date]

*State Element***Definition**

The date the patient arrived at the referring hospital including the Emergency Department.

Field Values

- Relevant value for data element.

Additional Information

- If the patient was brought to the ED, enter date patient arrived at ED. If patient was directly admitted to the hospital, enter date patient was admitted to the hospital.
- Collected as MM-DD-YYYY.
- Used to auto-generate two additional calculated fields: Total EMS Time: (elapsed time from EMS dispatch to hospital arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. Referring Facility (if applicable), last referring hospital first2. Transfer Form3. History and Physical | Element not included |

REFERRING HOSPITAL ARRIVAL TIME

Data Format [time]

State Element

Definition

The time the patient arrived to the referring hospital including Emergency Department.

Field Values

- Relevant value for data element.

Additional Information

- If the patient was brought to the ED, enter time patient arrived at ED. If patient was directly admitted to the hospital, enter time patient was admitted to the hospital.
- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate two additional calculated fields: Total EMS Time (elapsed time from EMS dispatch to hospital arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Referring Facility (if applicable), last referring hospital first2. Transfer Form3. History and Physical | Element not included |

REFERRING HOSPITAL TRANSPORT MODE

Data Format [drop-down menu] single-choice

State Element

Definition

The mode of transport delivering the patient to the transferred hospital

Field Values

- EMS
- Fixed-wing Ambulance
- Ground Ambulance
- Helicopter Ambulance
- Other
- Police
- Private/Public Vehicle/Walk-in

Additional Information

- The transport mode delivering the patient to your hospital-ambulance, helicopter, or fixed-wing.
- In NE, ALS providers have EMS service # in 5000 range; BLS providers have EMS # in 1000 range.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| Element not included | Element not included |

REFERRING HOSPITAL TRAUMA TEAM ACTIVATION

Data Format [drop down menu]

State Element

Definition

If the trauma team was activated.

Field Values

- Not activated
- Level 1 (highest level of activation which includes more team members or if only have one level of trauma team activation).
- Level 2 (next level of activation if have fewer team members for stable patients),
- Level 3 (consult of trauma or general surgery).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- If team members are always present (RN), do not enter unless you want to keep track of number of patients per individual staff.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form2. History and Physical3. Electronic ED Record4. Handwritten Critique Sheet5. EMS | Element not included |

REFERRING HOSPITAL TRAUMA TEAM CALL TIME

Data Format [time]

State Element

Definition

The time the Trauma team was called.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

REFERRING HOSPITAL TRAUMA TEAM ARRIVAL TIME

Data Format [time]

State Element

Definition

The time each trauma team staff member arrived in the Emergency Department.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

REFERRING HOSPITAL TRAUMA TEAM PHYSICIAN CALL TIME

Data Format [time]

State Element

Definition

The time the Trauma team physician was called.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

REFERRING HOSPITAL TRAUMA TEAM PHYSICIAN ARRIVAL TIME

Data Format [time]

State Element

Definition

The time the physician arrived in the Emergency Department.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

REFERRING HOSPITAL SYSTOLIC BLOOD PRESSURE**Data Format** [numeric]**State Element**

Definition

First recorded systolic blood pressure in the referring hospital.

Field Values

- Relevant value for data element (range 0-299).

Additional Information

- Additional systolic BP optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL DIASTOLIC BLOOD PRESSURE

Data Format [numeric]

Definition

First recorded diastolic blood pressure measured in the referring hospital.

Field Values

- Relevant value for data element range (0-299).

Additional Information

- Optional
- Additional diastolic BP optional but may be used if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL PULSE RATE**Data Format** [numeric]**State Element****Definition**

First recorded pulse in the referring hospital (palpated or auscultated), expressed as a number per minute.

Field Values

- Relevant value for data element (range 0-299).

Additional Information

- Additional vitals optional but may be useful if have a dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL TEMPERATURE**Data Format** [numeric]**State Element****Definition**

First recorded temperature (in degrees Celsius or Fahrenheit) in the referring hospital.

Field Values

- Relevant value for data element (Celsius 0-45 or Fahrenheit 0-120).

Additional Information

- Additional temperature is optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL RESPIRATORY RATE**Data Format** [numeric]**State Element**

Definition

First recorded respiratory rate in the referring hospital setting (expressed as a number per minute).

Field Values

- Relevant value for data element (range 0-99).

Additional Information

- Additional rate optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL RESPIRATORY ASSISTANCE

Data Format [drop-down menu] single-choice

Definition

Determination of respiratory assistance associated with the referring hospital respiratory rate.

Field Values

- Unassisted Respiratory Rate
- Assisted Respiratory Rate
- Not applicable
- Not known

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL OXYGEN SATURATION**Data Format** [numeric]**State Element**

Definition

First recorded oxygen saturation in the referring hospital setting (expressed as a percentage).

Field Values

- Relevant value for data element (0-100).

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL REVISED TRAUMA SCORE

Data Format [auto-generated]

State Element

Definition

Revised trauma score is auto calculated with systolic BP, respiratory rate and total GCS.

Field Values

- Relevant value for data element.

Additional Information

- Auto calculated with systolic BP, respiratory rate and total GCS from referring hospital.

REVISED TRAUMA SCORE

| Glasgow Coma Scale (GCS) | Systolic Blood Pressure (SBP) | Respiratory Rate (RR) | Coded Value |
|--------------------------|-------------------------------|-----------------------|-------------|
| 13-15 | >89 | 10-29 | 4 |
| 9-12 | 76-89 | >29 | 3 |
| 6-8 | 50-75 | 6-9 | 2 |
| 4-5 | 1-49 | 1-5 | 1 |
| 3 | 0 | 0 | 0 |

$$RTS = 0.9368 \text{ GCS} + 0.7326 \text{ SBP} + 0.2908 \text{ RR}$$

Values for the RTS are in the range 0 to 7.8408.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

CPR PERFORMED

Data Format [drop-down menu]

Definition

If CPR was performed while at the referring hospital.

Field Values

- Yes
- No

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL HEAD CT

Data Format [drop-down menu]

Definition

To indicate if a Head CT was performed at the referring hospital.

Field Values

- Positive
- Negative

Additional Information

- Cervical CT, Abd/pelvis CT, Chest CT, Abdominal Ultrasound, Arteriogram, Aortogram - not applicable or not performed as default; use dropdown menu if performed for choices. Date & time of CT and ultrasound is optional. Date can be pulled from ED/acute care arrival date by clicking green arrow. For positive results, use the following descriptions:
- Head CT positive - significant positive findings showing actual injury to brain, not to include the bony structures or face
- Abdominal CT positive - significant positive findings showing injury to abdominal organs, not to include the bony structures
- Chest CT positive - significant positive findings showing actual injury to chest organ only, not to include the bony structure
- Abdominal Ultrasound positive - significant positive finding showing fluid in abdomen
- Aortogram positive - aorta has identifiable injuries
- Arteriogram positive - arteries have identifiable injuries

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL AIRWAY MANAGEMENT

Data Format [drop-down menu]

State Element

Definition

Devise used to assist intubation of airway.

Field Values

- Bag and Mask
- Combitube
- Crico
- LMA
- Nasal ETT
- Oral Airway
- Oral ETT
- Trach
- King Airway
- Nasal Trumpet

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL MEDICATIONS

Data Format [drop down menu]

Definition

Medications administered while at referring hospital.

Field Values

- Medications are listed by brand name (generic).

Additional Information

- Medications are listed by brand name (generic). If medication name is not listed, do not include. This section also includes few procedures (defibrillation, packed red blood cells, oxygen, pelvic wrap, external pacemaker)
- Select all that apply.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL OR

Data Format [drop-down menu]

Definition

Was patient taken to OR for procedure while at referring hospital

Field Values

- Not Applicable – default
- Yes
- No

Additional Information

- Patient was sent to the referring hospital's OR for a procedure.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL ICU

Data Format [drop-down menu]

Definition

Whether the patient was in the referring hospital's ICU.

Field Values

- Not Applicable – default
- Yes
- No

Additional Information

- Admitted to the ICU while at referring hospital

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL GCS - EYE**Data Format** [numeric]**State Element****Definition**

First recorded Glasgow Coma Score (Eye) in the referring ED/hospital.

Field Values

1 No eye movement when assessed

3 Opens eyes in response to verbal stimulation

2 Opens eyes in response to painful stimulation

4 Opens eyes spontaneously

Additional Information

- Used to calculate Overall GCS - ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL GCS - VERBAL**Data Format** [numeric]**State Element****Definition** First recorded Glasgow Coma Score (Verbal) in the referring ED/hospital.**Field Values**Pediatric (≤ 2 years):

1 No vocal response

4 Cries but is consolable, inappropriate interactions

2 Inconsolable, agitated

5 Smiles, oriented to sounds, follows objects, interacts

3 Inconsistently consolable, moaning

Adult:

1 No verbal response

4 Confused

2 Incomprehensible sounds

5 Oriented

3 Inappropriate words

Additional Information

- Used to calculate Overall GCS - ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL GCS - MOTOR

Data Format [numeric]

*State Element***Definition** First recorded Glasgow Coma Score (Motor) in the referring ED/hospital.**Field Values**Pediatric (≤ 2 years):

1 No motor response

4 Withdrawal from pain

2 Extension to pain

5 Localizing pain

3 Flexion to pain

6 Appropriate response to stimulation

Adult:

1 No motor response

4 Withdrawal from pain

2 Extension to pain

5 Localizing pain

3 Flexion to pain

6 Obeys commands

Additional Information

- Used to calculate Overall GCS – ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL GCS - TOTAL

Data Format [numeric]

*State Element***Definition**

First recorded Glasgow Coma Score (total) in the referring ED/hospital.

Field Values

- Relevant value for data element.

Additional Information

- Auto calculates if eye, verbal and motor components of GCS entered (3-15).
- Additional GCS total optional but may be useful if have dramatic decrease or increase from first reading.
- The stance of the ACS and NTDB is that data should be abstracted, based upon the NTDS, only if it is objectively obtained from the record. Thus, if the value is missing from the hospital record, it should be reported as missing in the NTDS. The purpose of this stance is two-fold. First, to minimize the subjectively used among different abstractors to complete a registry record. Second, to provide the hospital with a realistic look at hospital record completion. Thus, if a formal GCS is missing, the hospital PI should make note of this and provide the necessary education to ensure the missing data is corrected.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL GCS – MANUAL TOTAL

Data Format [numeric]

Definition

First recorded Glasgow Coma Score (total) in the referring ED/hospital.

Field Values

- Relevant value for data element.

Additional Information

- *Utilize only if total score is available without component scores.*
- Many times GCS total will be recorded without components (eye, verbal, motor; i.e. GCS 11)
- Additional GCS total optional but may be useful if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL DESTINATION DETERMINATION

Data Format [drop down menu]

State Element

Definition

Reason for transferring to another facility from ED or hospital.

Field Values

- Hospital of choice
- Specialty Resource Center

Additional Information

- When a tiered-response is used, you may have more than one EMS provider to enter.
- Enter all available data elements but indicate destination determination for transporting service (ambulance or helicopter).
- For EMS providers that do not transport patient to the hospital, enter not transported (tiered response) for destination determination. i.e., Fire Department Ambulance is first responder but determine that helicopter is needed for patient.
- Helicopter service transports patient from the scene to trauma center.
- Fire Department Ambulance service destination determination would be not transported (tiered-response).
- Helicopter service destination determination would be specialty resource center.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|----------------------------|
| 1. Referring Facility (if applicable) | Element not included |

REFERRING HOSPITAL DISCHARGE DATE**Data Format** [date]**State Element****Definition**

The date the patient was discharged from the referring hospital.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Referring Facility (if applicable)2. Transfer Form3. History and Physical Form4. Interfacility EMS Transfer Form | Element not included |

REFERRING HOSPITAL DISCHARGE TIME**Data Format** [time]**State Element****Definition**

The time the patient was discharged from the referring hospital.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- This may be found on transporting service form as time of departure, time on nurse's notes as time of departure or time on transfer forms.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Referring Facility (if applicable)2. Transfer Form3. History and Physical Form4. Interfacility EMS Transfer Form | Element not included |

Emergency Department Information

DIRECT ADMIT TO HOSPITAL

Data Format [drop-down menu]

Definition

Patient was directly admitted to the facility.

Field Values

- Yes
- No

Additional Information

- No is default
- If yes, ED discharge date & time are note entered since they are not applicable for direct admit.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Hospital History and Physical2. Physician Progress Notes3. Discharge Summary4. Patient Encounter Information5. Hospital Transfer Form | Element not included |

ED/HOSPITAL ARRIVAL DATE

Data Format [date]

*State/National Element***Definition**

The date the patient arrived to the ED or acute care if a direct admit.

Field Values

- Relevant value for data element.

Additional Information

- If the patient was brought to the ED, enter date patient arrived at ED. If patient was directly admitted to the hospital, enter date patient was admitted to the hospital.
- Collected as MM-DD-YYYY.
- Used to auto-generate two additional calculated fields: Total EMS Time: (elapsed time from EMS dispatch to hospital arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Electronic ED Record (HMED) 2. EMS (if available) 3. Hand Written ED Nursing Progress Notes 4. Physician progress record | <ol style="list-style-type: none"> 1. Triage Form / Trauma Flow Sheet 2. ED Record 3. Billing Sheet / Medical Records Coding Summary Sheet 4. Hospital Discharge Summary |

ED/HOSPITAL ARRIVAL TIME

Data Format [time]

*State/National Element***Definition**

The time the patient arrived to the ED or acute care if a direct admit.

Field Values

- Relevant value for data element.

Additional Information

- If the patient was brought to the ED, enter time patient arrived at ED. If patient was directly admitted to the hospital, enter time patient was admitted to the hospital.
- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate two additional calculated fields: Total EMS Time (elapsed time from EMS dispatch to hospital arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. Electronic ED Record (HMED) 2. EMS (if available) 3. Hand Written ED Nursing Progress Notes 4. Physician progress record | <ol style="list-style-type: none"> 1. Triage Form / Trauma Flow Sheet 2. ED Record 3. Billing Sheet / Medical Records Coding Summary Sheet 4. Hospital Discharge Summary |

TRAUMA TEAM ACTIVATION

Data Format [drop down menu]

State Element

Definition

If the trauma team was activated.

Field Values

- Not activated
- Level 1 (highest level of activation which includes more team members or if only have one level of trauma team activation).
- Level 2 (next level of activation if have fewer team members for stable patients),
- Level 3 (consult of trauma or general surgery).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- If team members are always present (RN), do not enter unless you want to keep track of number of patients per individual staff.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form2. History and Physical3. Electronic ED Record4. Handwritten Critique Sheet5. EMS | Element not included |

TRAUMA TEAM CALL TIME

Data Format [time]

State Element

Definition

The time the Trauma team was called.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

TRAUMA TEAM ARRIVAL TIME

Data Format [time]

State Element

Definition

The time each trauma team staff member arrived in the Emergency Department.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

TRAUMA TEAM PHYSICIAN CALL TIME

Data Format [time]

State Element

Definition

The time the Trauma team physician was called.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations. .
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

TRAUMA TEAM PHYSICIAN ARRIVAL TIME

Data Format [time]

State Element

Definition

The time the physician arrived in the Emergency Department.

Field Values

- Appropriate value for this field, format (HH:MM).

Additional Information

- If trauma team activated, enter date and time activated; physician or staff name, service type, date and time called, time of arrival, timely arrival.
- Each hospital should decide minimum staff that needs to be entered and if timely arrival meets hospital expectations.
- Can use copy button to eliminate entering same info i.e. dates & times are same for time called and arrival, but staff name is different. Then copy and change name of staff & service.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing Notes3. History and Physical4. Handwritten Critique Sheet | Element not included |

ADMITTING SERVICE

Data Format [drop-down menu]

*State Element***Definition**

The service, to which the patient is designated upon admission to your hospital or, in the case of death in the ED, the service, which gives the patient primary care in the ED.

Field Values

- Relevant value for data element.

Additional Information

- Medicine (includes Internal Medicine, Family Medicine, Pediatrics and all medical sub specialists)
- Neurosurgery
- Orthopedics
- Pediatric Surgery
- Surgical Subspecialty
- Trauma (includes General Surgery)

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Trauma History and Physical2. ED Nursing Notes3. Patient Encounter Information Form4. Handwritten Critique sheet | Element not included |

ADMITTING STAFF**Data Format** [drop-down menu]**Definition**

The name of the admitting physician or staff.

Field Values

- Relevant value for data element.

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Trauma History and Physical2. ED Nursing Notes3. Patient Encounter Information Form4. Handwritten Critique sheet | Element not included |

CONSULTING SERVICE

Data Format [drop down menu]

Definition

The service that consulted with the patient.

Field Values

- Yes
- No

Additional Information

- Optional
- In state vendor system, if yes then complete additional details
 - Select type of consulting service and staff from drop down menu.
- Helpful if want to keep track of this information for consulting service participation in care.
- Consult service and discharge service types are from the same list. This information can be used from the entire hospital.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

CONSULTING STAFF

Data Format [drop down menu]

Definition

The staff that consulted with the patient.

Field Values

- Select consulting staff from drop down menu

Additional Information

- Optional
- Helpful if want to keep track of this information for consulting service participation in care.
- Consult service and discharge service types are from the same list. This information can be used from the entire hospital.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

CONSULTING DATE

Data Format [date]

Definition

The date that the consult occurred.

Field Values

- MM-DD-YYYY

Additional Information

- Optional
- Helpful if want to keep track of this information for consulting service participation in care.
- Consult service and discharge service types are from the same list. This information can be used from the entire hospital.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| Element not included | Element not included |

CONSULTING TIME

Data Format [time]

Definition

The time the consult occurred.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

Initial Assessment

INITIAL ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

Data Format [numeric]

State/National Element

Definition

First recorded systolic blood pressure in the ED/hospital.

Field Values

- Relevant value for data element (range 0-299).

Additional Information

- Additional systolic BP optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | <ol style="list-style-type: none">1. Triage Form/Trauma Flow Sheet2. ED Record |

INITIAL ED/HOSPITAL DIASTOLIC BLOOD PRESSURE

Data Format [numeric]

Definition

First recorded diastolic blood pressure measured in the ED/hospital.

Field Values

- Relevant value for data element range (0-299).

Additional Information

- Optional
- Additional diastolic BP optional but may be used if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | Element not included |

INITIAL ED/HOSPITAL PULSE RATE

Data Format [numeric]

*State/National Element***Definition**

First recorded pulse in the ED/hospital (palpated or auscultated), expressed as a number per minute.

Field Values

- Relevant value for data element (range 0-299).
- Additional vitals optional but may be useful if have a dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | |
| 4. ED Nursing Notes | |

INITIAL ED/HOSPITAL TEMPERATURE**Data Format** [numeric]**State/National Element****Definition**

First recorded temperature (in degrees Celsius [centigrade]) in the ED/hospital.

Field Values

- Relevant value for data element (Celsius 0-45 or Fahrenheit 0-120).

Additional Information

- Additional temperature is optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | <ol style="list-style-type: none">1. Triage Form/Trauma Flow Sheet2. ED Record |

INITIAL ED/HOSPITAL RESPIRATORY RATE

Data Format [numeric]

*State/National Element***Definition**

First recorded respiratory rate in the ED/hospital (expressed as a number per minute).

Field Values

- Relevant value for data element (range 0-99).

Additional Information

- Used to auto-generate an additional calculated field: Revised Trauma Score - ED (adult & pediatric).
- Additional rate optional but may be useful if there is a dramatic decrease or increase from the first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | |
| 4. ED Nursing Notes | |

INITIAL ED/HOSPITAL RESPIRATORY ASSISTANCE

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

Determination of respiratory assistance associated with the initial ED/hospital respiratory rate.

Field Values

1 Unassisted Respiratory Rate

2 Assisted Respiratory Rate

Additional Information

- Respiratory Assistance is defined as mechanical and/or external support of respiration.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | |
| 4. ED Nursing Notes | |

INITIAL ED/HOSPITAL OXYGEN SATURATION

Data Format [numeric]

*State/National Element***Definition**

First recorded oxygen saturation in the ED/hospital (expressed as a percentage).

Field Values

- Relevant value for data element (0-100).

Additional Information

- *If available, complete additional field: "Initial ED/Hospital Supplemental Oxygen."*
- Additional vitals optional but may be useful if have dramatic decrease or increase from first reading.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | <ol style="list-style-type: none">1. Triage Form/Trauma Flow Sheet2. ED Record |

INITIAL ED/HOSPITAL SUPPLEMENTAL OXYGEN

Data Format [drop-down menu] single-choice

State/National Element

Definition

Determination of the presence of supplemental oxygen during assessment of initial ED/hospital oxygen saturation level.

Field Values

1 No Supplemental Oxygen

2 Supplemental Oxygen

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | |
| 4. ED Nursing Notes | |

INITIAL ED/HOSPITAL GCS - EYE

Data Format [numeric]

*State/National Element***Definition**

First recorded Glasgow Coma Score (Eye) in the ED/hospital.

Field Values

1 No eye movement when assessed

3 Opens eyes in response to verbal stimulation

2 Opens eyes in response to painful stimulation

4 Opens eyes spontaneously

Additional Information

- Used to calculate Overall GCS - ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | <ol style="list-style-type: none">1. Triage Form/Trauma Flow Sheet2. ED Record |

INITIAL ED/HOSPITAL GCS - VERBAL

Data Format [numeric]

*State/National Element***Definition** First recorded Glasgow Coma Score (Verbal) in the ED/hospital.**Field Values**Pediatric (≤ 2 years):

1 No vocal response

4 Cries but is consolable, inappropriate interactions

2 Inconsolable, agitated

5 Smiles, oriented to sounds, follows objects, interacts

3 Inconsistently consolable, moaning

Adult:

1 No verbal response

4 Confused

2 Incomprehensible sounds

5 Oriented

3 Inappropriate words

Additional Information

- Used to calculate Overall GCS - ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| 1. Trauma Team activation form/pack 2. Electronic ED Record 3. Hospital History and Physical 4. ED Nursing Notes | 1. Triage Form/Trauma Flow Sheet 2. ED Record |

INITIAL ED/HOSPITAL GCS - MOTOR

Data Format [numeric]

*State/National Element***Definition** First recorded Glasgow Coma Score (Motor) in the ED/hospital.**Field Values**Pediatric (≤ 2 years):

1 No motor response

4 Withdrawal from pain

2 Extension to pain

5 Localizing pain

3 Flexion to pain

6 Appropriate response to stimulation

Adult:

1 No motor response

4 Withdrawal from pain

2 Extension to pain

5 Localizing pain

3 Flexion to pain

6 Obeys commands

Additional Information

- Used to calculate Overall GCS – ED Score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| 1. Trauma Team activation form/pack 2. Electronic ED Record 3. Hospital History and Physical 4. ED Nursing Notes | 1. Triage Form/Trauma Flow Sheet 2. ED Record |

INITIAL ED/HOSPITAL GCS - TOTAL

Data Format [numeric]

*State/National Element***Definition**

First recorded Glasgow Coma Score (total) in the ED/hospital.

Field Values

- Relevant value for data element.

Additional Information

- Auto calculates if eye, verbal and motor components of GCS entered (3-15).
- Additional GCS total optional but may be useful if have dramatic decrease or increase from first reading.
- The stance of the ACS and NTDB is that data should be abstracted, based upon the NTDS, only if it is objectively obtained from the record. Thus, if the value is missing from the hospital record, it should be reported as missing in the NTDS. The purpose of this stance is two-fold. First, to minimize the subjectively used among different abstractors to complete a registry record. Second, to provide the hospital with a realistic look at hospital record completion. Thus, if a formal GCS is missing, the hospital PI should make note of this and provide the necessary education to ensure the missing data is corrected.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | |
| 4. ED Nursing Notes | |

INITIAL ED/HOSPITAL GCS – MANUAL TOTAL

Data Format [numeric]

Definition

First recorded Glasgow Coma Score (total) in the ED/hospital.

Field Values

- Relevant value for data element.

Additional Information

- *Utilize only if total score is available without component scores.*
- Many times GCS total will be recorded without components (eye, verbal, motor; i.e. GCS 11)
- Additional GCS total optional but may be useful if have dramatic decrease or increase from first reading.
- The stance of the ACS and NTDB is that data should be abstracted, based upon the NTDS, only if it is objectively obtained from the record. Thus, if the value is missing from the hospital record, it should be reported as missing in the NTDS. The purpose of this stance is two-fold. First, to minimize the subjectively used among different abstractors to complete a registry record. Second, to provide the hospital with a realistic look at hospital record completion. Thus, if a formal GCS is missing, the hospital PI should make note of this and provide the necessary education to ensure the missing data is corrected.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | Element not included |

INITIAL ED/HOSPITAL GCS ASSESSMENT QUALIFIERS

Data Format [drop-down menu] multiple-choice

*State/National Element***Definition**

Documentation of factors potentially affecting the first assessment of GCS upon arrival in the ED/hospital.

Field Values

1 Patient Chemically Sedated

3 Patient Intubated

2 Obstruction to the Patient's Eye

4 Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to eye

Additional Information

- Identifies treatments given to the patient that may affect the first assessment of GCS. This field does not apply to self-medications the patient may administer (i.e., ETOH, prescriptions, etc.).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-------------------------------------|-----------------------------------|
| 1. Trauma Team activation form/pack | 1. Triage Form/Trauma Flow Sheet |
| 2. Electronic ED Record | 2. ED Record |
| 3. Hospital History and Physical | 3. EMS Run Sheet |
| 4. ED Nursing Notes | |

REVISED TRAUMA SCORE

Data Format [auto-generated]

State Element

Definition

Revised trauma score is auto calculated with systolic BP, respiratory rate and total GCS.

Field Values

- Relevant value for data element.

Additional Information

- Auto calculated with systolic BP, respiratory rate and total GCS.

REVISED TRAUMA SCORE

| Glasgow Coma Scale (GCS) | Systolic Blood Pressure (SBP) | Respiratory Rate (RR) | Coded Value |
|--------------------------|-------------------------------|-----------------------|-------------|
| 13-15 | >89 | 10-29 | 4 |
| 9-12 | 76-89 | >29 | 3 |
| 6-8 | 50-75 | 6-9 | 2 |
| 4-5 | 1-49 | 1-5 | 1 |
| 3 | 0 | 0 | 0 |

$$RTS = 0.9368 \text{ GCS} + 0.7326 \text{ SBP} + 0.2908 \text{ RR}$$

Values for the RTS are in the range 0 to 7.8408.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Laboratory Results2. Hospital History and Physical3. ED Nursing Notes4. Electronic ED Record | Element not included |

ED AIRWAY MANAGEMENT

Data Format [drop-down menu]

*State Element***Definition**

Device used to assist intubation of airway.

Field Values

- Bag & Mask
- Combitube
- Crico
- LMA
- Nasal ETT
- Oral Airway
- Oral ETT
- Trach
- King Airway
- Nasal Trumpet

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Trauma team activation form/pack2. ED Nursing notes3. History and Physical4. RT flow record5. EMS Report which transfer to facility | Element not included |

ED CPR PERFORMED

Data Format [drop-down menu]

Definition

If CPR was performed in the Emergency Department

Field Values

- Not Performed – default
- Yes
- No

Additional Information**Data Source Hierarchy**

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. Trauma Team activation form/pack 2. Electronic ED Record 3. Hospital History and Physical 4. ED Nursing Notes | Element not included |

UNITS OF BLOOD

Data Format [numeric]

Definition

Number of units of packed red blood cells given in first 24 hours.

Field Values

- Relevant value for data element.

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Trauma Team activation form/pack2. Electronic ED Record3. Hospital History and Physical4. ED Nursing Notes | Element not included |

ED HEAD CT

Data Format [drop-down menu]

*State Element***Definition**

Head - Portion of the body, which contains the brain and organs of sight, smell, hearing, and taste. CT Scan (Computerized Axial Tomography) - a diagnostic procedure that utilizes a computer to analyze x-ray data.

Field Values

- Relevant value for data element.
- Not performed or Not available is default.

Additional Information

- Cervical CT, Abd/pelvis CT, Chest CT, Abdominal Ultrasound, Arteriogram, Aortogram - not applicable or not performed as default; use dropdown menu if performed for choices. Date & time of CT and ultrasound is optional. Date can be pulled from ED/acute care arrival date by clicking green arrow. For positive results, use the following descriptions:
- Head CT positive - significant positive findings showing actual injury to brain, not to include the bony structures or face
- Abdominal CT positive - significant positive findings showing injury to abdominal organs, not to include the bony structures
- Chest CT positive - significant positive findings showing actual injury to chest organ only, not to include the bony structure
- Abdominal Ultrasound positive - significant positive finding showing fluid in abdomen
- Aortogram positive - aorta has identifiable injuries
- Arteriogram positive - arteries have identifiable injuries

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. Radiology CT of Head 2. Neurosurgery Consultation report 3. History and Physical | Element not included |

ALCOHOL USE INDICATOR

Data Format [drop-down menu] single-choice

State/National Element**Definition**

Use of alcohol by the patient.

Field Values

1 No (not tested)

3 Yes (confirmed by test [trace levels])

2 No (confirmed by test)

4 Yes (confirmed by test [beyond legal limit])

Additional Information

- Blood alcohol concentration (BAC) may be documented at any facility (or setting) treating this patient event.
- “Trace levels” is defined as any alcohol level below the legal limit, but not zero.
- “Beyond legal limit” is defined as a blood alcohol concentration above the legal limit for the state in which the treating institution is located. Above any legal limit, DUI, DWI or DWAI, would apply here.
- If alcohol use is suspected, but not confirmed by test, record null value “Not Known/Not Recorded.”

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| 1. Laboratory Results 2. Hospital History and Physical 3. ED Nursing Notes 4. Electronic ED Record | 1. Lab Results 2. ED Physician Notes |

BLOOD ALCOHOL CONTENT

Data Format [numeric]

*State Element***Definition**

Blood alcohol content in mg/dl.

Field Values

- Relevant value for data element.

Additional Information

- If tested, enter results of blood alcohol content in mg/dl i.e. BAL of 0.08 is 80mg/dl.
- The most common unit of measure is mg/dl (milligrams of ethanol per deciliter of blood serum).
- To convert XXX mg/dl to percent BSAC, divide by 1000 (e.g. 100 mg/dl = 0.10%). To convert XXX mg/L (milligrams per liter) to percent BSAC, divide by 10,000 (e.g. 1000 mg/L = 0.10%).
- To convert XXX % BSAC to mg/dl, multiply by 1000 (e.g. 0.08% BSAC = 80 mg/dl)/

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Laboratory Results2. Hospital History and Physical3. ED Nursing Notes4. Electronic ED Record | Element not included |

DRUG USE INDICATOR

Data Format [drop-down menu] multiple-choice

*State/National Element***Definition**

Use of drugs by the patient.

Field Values

1 No (not tested)

3 Yes (confirmed by test [prescription drug])

2 No (confirmed by test)

4 Yes (confirmed by test [illegal use drug])

Additional Information

- Drug use may be documented at any facility (or setting) treating this patient event.
- “Illegal use drug” includes illegal use of prescription drugs.
- If drug use is suspected, but not confirmed by test, record null value “Not Known/Not Recorded.”
- This data element refers to drug use by the patient and does not include medical treatment.
- Check for benzodiazepines or narcotics administered to patient by EMS providers or hospital before urine drug screen is done at Hospital.
- If illegal drug use is suspected, but not confirmed by test, record null value “Not Known”.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| 1. Laboratory Results 2. Hospital History and Physical 3. ED Nursing Notes 4. Electronic ED Record | 1. Lab Results 2. ED Physician Notes |

DRUG SCREEN

Data Format [check-box] multiple-choice

*State Element***Definition**

Used for illegal drugs not drugs administered by EMS provider or hospital prior to drug screen.

Field Values

- Amphetamine
- Antidepressants (including Tricyclics)
- Barbiturate
- Benzodiaz
- Cocaine
- Ethanol
- Marijuana (cannabis)
- Methamphetamines
- Opiates (including Propoxyphene)
- PCP

Additional Information

- Only required is drug use indicator is positive.
- Check for benzodiazepines or narcotics administered to patient by EMS providers or hospital before urine drug screen is done at Hospital.
- You can only choose one of numbers listed.
- If patient has positive drug use (confirmed by test [illegal use drug]) and (confirmed by test [prescription drug]), choose worst contributor which would be illegal drug use.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. Laboratory Results 2. Hospital History and Physical 3. ED Nursing Notes 4. Electronic ED Record | Element not included |

HEMATOCRIT

Data Format [numeric]

Definition

Hematocrit lab result, measurement of the percentage of volume of whole blood that is made up of red blood cells.

Field Values

- Relevant value for data element.

Additional Information

- Use initial ED/acute care hematocrit.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|----------------------------|
| <ol style="list-style-type: none">1. Laboratory Results2. Hospital History and Physical3. ED Nursing Notes4. Electronic ED Record | Element not included |

BASE DEFICIT

Data Format [numeric]

Definition

Base deficit lab result, measurement of the total concentration of bicarbonate.

Field Values

- Relevant value for data element.

Additional Information

- Use initial ED/acute care base deficit; may be a negative result ie. -15.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|-----------------------------------|
| <ol style="list-style-type: none">1. Laboratory Results2. Hospital History and Physical3. ED Nursing Notes4. Electronic ED Record | Element not included |

ED DISCHARGE DISPOSITION

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The disposition of the patient at the time of discharge from the ED.

Field Values

- | | |
|---|------------------------------------|
| 1 Floor bed (general admission, non specialty unit bed) | 7 Operating Room |
| 2 Observation unit (unit that provides < 24 hour stays) | 8 Intensive Care Unit (ICU) |
| 3 Telemetry/step-down unit (less acuity than ICU) | 9 Home without services |
| 4 Home with services | 10 Left against medical advice |
| 5 Died | 11 Transferred to another hospital |
| 6 Other (jail, institutional care, mental health, etc.) | |

Additional Information

- Based upon UB-04 disposition coding.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| 1. ED Nursing Notes 2. Electronic ED Record (HMED) 3. History and Physical Form | 1. Discharge Sheet 2. Nursing Progress Notes 3. Social Worker Notes |

ED DISCHARGE DATE

Data Format [date]

*State/National Element***Definition**

The date the patient was discharged from the ED.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.
- Used to auto-generate an additional calculated field: Total ED Time (ED Length of stay): elapsed time from ED admit to ED discharge.
- If the patient is directly admitted to the hospital, code as Not Applicable

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none">1. ED Nursing Notes2. Electronic ED Record (HMED)3. Hospital History and Physical Form | <ol style="list-style-type: none">1. Hospital Discharge Summary2. Billing Sheet / Medical Records Coding Summary Sheet3. Physician's Progress Notes |

ED DISCHARGE TIME

Data Format [time]

*State/National Element***Definition**

The time the patient was discharged from the ED.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate an additional calculated field: Total ED Time (ED Length of stay): elapsed time from ED admit to ED discharge.
- If the patient is directly admitted to the hospital, code as Not Applicable

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none"> 1. ED Nursing Notes 2. Electronic ED Record (HMED) 3. Hospital History and Physical Form | <ol style="list-style-type: none"> 1. Hospital Record 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Physician's Progress Notes |

ED TRANSFER DECISION TIME

Data Format [time]

*State Element***Definition**

The time the physician decided to transfer the patient.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|-----------------------------------|
| <ol style="list-style-type: none">1. Acute care transfer and authorization form2. ED Physician notes3. ED Nursing Notes | Element not included |

REASON OF TRANSFER DELAY

Data Format [drop-down menu]

*State Element***Definition**

The reason for a transfer delay.

Field Values

- EMS Issue
- Receiving Hospital Issue
- Referring Hospital Issue
- Referring Physician Decision Making
- Referring Hospital – Radiology
- Referring Hospital – CT Scan
- Weather or Natural Factors
- Other

Additional Information

Use Referring Hospital- Radiology, when waiting for results of X-rays caused delay in transfer

Use Referring Hosp –CT scan, when CT scan and results of CT caused delay in transfer

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| 1. ED Nursing Notes | Element not included |
| 2. ED Physician Notes | |

Hospital Procedure Information

PROCEDURE PERFORMED

Data Format [drop-down menu]

Definition

Indicates if any procedure was performed.

Field Values

- Yes
- No
- Not Applicable – default

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| Element not included | Element not included |

HOSPITAL PROCEDURES

Data Format [drop-down menu] multiple-choice

State/National Element

Definition

Operative or essential procedures conducted during hospital stay by Physicians/PA or APRN (include only procedures performed at your institution).

Field Values

- Major and minor procedure (ICD-9-CM) IP codes.
- The maximum number of procedures that may be reported for a patient is 200.

Additional Information

- Code the field as Not Applicable if patient did not have procedures.
- It is not necessary to include x-rays, Cat scans, other diagnostic tests or nursing procedures.
- Operative and essential procedures are those that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or complications.
- The list of procedures below should be used as a guide to non operative procedures that should be provided to NTDB. This list is based on procedures sent to NTDB with a high frequency. Not all hospitals capture all procedures listed below. Please transmit those procedures that you capture to NTDB.
- See Appendix B for list of NTDB procedures recommendations

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| 1. Operative Record | 1. Operative Reports |
| 2. Hospital Discharge Summary | 2. ER and ICU Records |
| 3. Anesthesia Form | 3. Trauma Flow Sheet |
| 4. Billing Sheet/Medical Records Coding Summary Sheet | 4. Anesthesia Record |
| | 5. Billing Sheet / Medical Records Coding Summary Sheet |
| | 6. Hospital Discharge Summary |

HOSPITAL PROCEDURE START DATE

Data Format [date]

*State/National Element***Definition**

The date operative and essential procedures were performed.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. Anesthesia Form2. Operative Record3. OR Nurses Notes4. ED Record if ED or ICU procedures5. Physicians Progress Notes if ED or ICU procedures | <ol style="list-style-type: none">1. OR Nurses' Notes2. Operative Reports3. Anesthesia Record |

HOSPITAL PROCEDURE START TIME

Data Format [time]

State/National Element

Definition

The time operative and essential procedures were performed.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Procedure start time is defined as the time the incision was made (or the procedure started).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. Anesthesia Form2. Operative Record3. OR Nurses Notes4. ED Record if ED or ICU procedures5. Physicians Progress Notes if ED or ICU procedures | <ol style="list-style-type: none">1. OR Nurses' Notes2. Operative Reports3. Anesthesia Record |

ICD-9 PROCEDURE CODES

Data Format [numeric]

State/National Element

Definition

Procedures that have an ICD-9 code.

Field Values**Additional Information**

Can be searched (using Look-up) by code or words, browse by category or top selected codes in order of frequency.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| Element not included | Element not included |

LOCATION OF PROCEDURE

Data Format [drop-down menu]

Definition

The location the procedure was performed.

Field Values

(State vendor system)

- Catherization Lab
- Prehospital
- Emergency Department
- Floor
- GI Lab
- ICU
- OR
- PTA (Referring Hospital)
- Radiology
- Readmit OR (planned OR)
- Tele
- Not Applicable - default

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

PROCEDURE STAFF

Data Format [drop-down menu]

Definition

Physician's name performing the procedure

Field Values

- Staff names

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

PROCEDURE SERVICE TYPE

Data Format [drop-down menu]

Definition

Specialty of the physician performing the procedure.

Field Values

(State vendor system)

- Not Applicable - default
- Critical Care Medicine
- Emergency Medicine
- Ear Nose Throat
- Gastroenterology
- Gynecology
- General Surgery
- Hand Surgery
- Medicine
- Neurosurgery
- Obstetrics
- Oral Maxillo Facial Surgery
- Ophthalmology
- Orthopedic Surgery
- Pediatric Surgery
- Orthopedic Pediatric
- Plastic Surgery
- Radiology
- Trauma Surgery
- Thoracic Surgery
- Urology
- Vascular Surgery
- Not Performed
- Not Known
- Not Available

Additional Information

- Copy button is helpful when you have several procedures done at same date, time or physician.
- Copy previous and change code, location, date/time, staff or service. It eliminates duplicating similar information.
- You can sort procedures in order of occurrence. If change order of procedures after entry, must use save order button.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

RESOURCE UTILIZATION

Data Format [check box]

Definition

Other resources used while in ED/Hospital.

Field Values

| | |
|--------------------------------|------------------------------------|
| • Adult Protective Services | • PICC |
| • Bi-Pap | • Total Parenteral Nutrition (TPN) |
| • Brace | • Transfusion of FFP |
| • Cerebral Brain Flow Studies | • Transfusion of Platelets |
| • Child Protective Service | • Transfusion of PRBC |
| • CRRT | • Tube Feeding |
| • Dialysis | • Uncrossmatched Blood |
| • Epidural Catheter | • Vaccine Post-Splenectomy |
| • Factor VIIa (Novoseven) | • Venous Doppler |
| • High Dose Methylprednisolone | • Wound Care RN |
| • Hypertonic Saline | • Wound Vacuum |
| • Level-1 Blood/Fluid Warmer | • |
| • Massive Blood Transfusion | • |

Additional Information

- Optional entry
- It allows hospital to keep track of resources not included elsewhere in trauma registry and not captured under physician procedures, i.e. patient receiving uncrossmatched blood products.
- May select all that apply.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

Comorbidity

CO-MORBID CONDITIONS

Data Format [drop down menu] multiple-choice

*State/National Element***Definition**

Pre-existing co-morbid factors present before patient arrival at the ED/hospital.

Field Values

- | | |
|--|--|
| 2 Alcoholism | 15 Functionally dependent health status |
| 3 Ascites within 30 days | 16 History of angina within past 1 month |
| 4 Bleeding disorder | 17 History of myocardial infarction within past 6 months |
| 5 Chemotherapy for cancer within 30 days | 18 History of revascularization / amputation for PVD |
| 6 Congenital Anomalies | 19 Hypertension requiring medication |
| 7 Congestive heart failure | 20 Impaired sensorium |
| 8 Current smoker | 21 Prematurity |
| 9 Currently requiring or on dialysis | 22 Obesity |
| 10 CVA/residual neurological deficit | 23 Respiratory Disease |
| 11 Diabetes mellitus | 24 Steroid use |
| 12 Disseminated cancer | 25 Cirrhosis |
| 13 Do Not Resuscitate (DNR) status | 1 Other |
| 14 Esophageal varices | |

Additional Information

- The value "Not Applicable" should be used for patients with no known co-morbid conditions.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------------|-----------------------------------|
| 1. History and Physical | 1. History and Physical |
| 2. Consults Report | 2. Discharge Sheet |
| 3. Billing Sheet | 3. Billing Sheet |
| 4. Discharge Summary | |
| 5. Referring Hospital (if applicable) | |

Diagnoses Information

INJURY DIAGNOSES

Data Format [drop-down menu] multiple-choice

State/National Element

Definition

Diagnoses related to all identified injuries.

Field Values

- Injury diagnoses as defined by (ICD-9-CM) codes (code range: 800-959.9, 994.1, 994.7, 994.8).
- The maximum number of diagnoses that may be reported for an individual patient is 50.

Additional Information

- Used to auto-generate additional calculated fields: Abbreviated Injury Scale (six body regions) and Injury Severity Score
- The state vendor system has a mapping table to link most ICD-9 to AIS codes.
- ICD-9-CM codes should be listed starting with the most to least significant injury.
- The primary injury resulting in the hospitalization should be listed first.
- The “significance” of other injuries should be based upon severity and location.
- ICD-9 diagnosis code can be looked up three ways (search by code or word, browse by category under injury and poisoning tab, top selected codes in state in order of frequency).
- ICD-9 diagnosis codes can be between three and five digits. Decimal follows third number although decimal is not needed if enter number without look up.
- ICD-9-CM codes outside range 800-959.9, 994.1, 994.7, 994.8 should only be used if patient requires readmission for a complication, i.e. patient readmitted for DVT that developed after discharge from hospital. This readmission would be entered as readmission incident.
- It is extremely important to code patient injuries as specifically as possible for good data. If patient has an intertrochanteric hip fracture, it should not be coded as hip fracture or unspecified part of neck of femur. Hospital coders may use unspecified diagnosis, when more specific diagnosis could be found in medical records or from radiology reports or autopsy results.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. Discharge Summary2. Physician Progress Notes/Consults3. Final Radiology Reports4. Hospital Coding Form/Billing Sheet | <ol style="list-style-type: none">1. Hospital Discharge Summary2. Billing Sheet/Medical Records Coding Summary Sheet3. Trauma Flow Sheet4. ER and ICU Records |

AIS 05 CODE

Data Format [drop-down menu] multiple choice

State/Optional National Element

Definition

The Abbreviated Injury Scale (AIS) severity codes that reflect the patient's injuries. AIS 05 is the 2005 version

Field Values

- AIS regions/code ranges:
 - Head (100099.9-161013.5)
 - Face (200099.9-251902.4)
 - Neck (300099.9-350200.2)
 - Thorax (400099.9-451022.5)
 - Abdomen (500099.9-545626.3)
 - Spine (600099.9-640678.1)
 - Upper extremity (700099.9-752674.1)
 - Lower extremity (800099.9-852672.3)
 - External (910000.1-912032.6)
 - Other (010000.1-08004.5)

Additional Information

- Each AIS regions has subcategories for whole area, vessels, nerves, internal organs, and skeletal. Extremity regions also include muscles, tendons ligaments and joints. External regions has external, burns, and other. Spine is also subcategorized by cervical, thoracic and lumbar regions.
- AIS allow data to be used to characterize patients and hospital outcomes based upon the presence, severity and type of injury. The predot code is the 6 digits preceding the decimal point in an associated AIS code.
- Option 9 should rarely be used as post-dot code. Using a #9 documents the occurrence of an injury but not the specify severity of injury and therefore cannot be used to calculate ISS (injury severity score) or probability of survival (POS)
- AIS-05 codes can be looked up three ways (historical data which is what other users have entered for ICD9-diagnosis codes, search codes and words, and browse codes). AIS 98 codes have been matched to newer version AIS-05 codes. AIS 05 ranges have been matched to appropriate ICD-9 codes.
- A warning will occur if the code falls outside those ranges i.e. patient's injury is femoral shaft fracture ICD- 821.01; enter AIS in head injury range (100099.9-161013.5).
- The system has mapping from the ICD-9 codes to the AIS 05 code.

ISS BODY REGION

Data Format [autogenerated]

State/Optional National Element

Definition

The Injury Severity Score (ISS) is an anatomical scoring system that provides an overall score for patients with multiple injuries.

Field Values

| | |
|----------------|--------------------------------|
| 1 Head or Neck | 4 Abdominal or pelvic contents |
| 2 Face | 5 Extremities or pelvic girdle |
| 3 Chest | 6 External |

Additional Information

- Head or neck injuries include injury to the brain or cervical spine, skull or cervical spine fractures.
- Facial injuries include those involving mouth, ears, nose and facial bones.
- Chest injuries include all lesions to internal organs. Chest injuries also include those to the diaphragm, rib cage, and thoracic spine.
- Abdominal or pelvic contents injuries include all lesions to internal organs. Lumbar spine lesions are included in the abdominal or pelvic region.
- Injuries to the extremities or to the pelvic or shoulder girdle include sprains, fractures, dislocations, and amputations, except for the spinal column, skull and rib cage.
- External injuries include lacerations, contusions, abrasions, and burns, independent of their location on the body surface.
- Body regions for ISS do not match exactly to AIS regions.

CALCULATED ISS

Data Format [autogenerated]

State Element

Definition

The Injury Severity Score (ISS) that reflects the patient's injuries.

Field Values

- Relevant ISS value for the constellation of injuries.

Additional Information

- It is automatically calculated if AIS 05 codes are entered for ICD-9 diagnosis code. Each injury is assigned AIS and is allocated to one of six body regions (Head, Face, Chest, Abdomen, Extremities (including Pelvis), and External). Only the highest AIS score in each body region is used. The 3 most severely injured body regions have their score squared and added together to produce the ISS score. ISS score range from 1-75. If an injury is assigned an AIS of 6 (unsurvivable injury), the ISS score is automatically assigned to 75.

**Additional Information from NTDS Data dictionary 2011*

An example of the ISS calculation is shown below:

| Region | Injury Description | AIS | Square Top Three |
|-------------------------------|---|-----|------------------|
| Head & Neck | Cerebral Contusion | 3 | 9 |
| Face | No Injury | 0 | |
| Chest | Flail Chest | 4 | 16 |
| Abdomen | Minor Contusion of Liver Complex Rupture Spleen | 5 | 25 |
| Extremity | Fractured femur | 3 | |
| External | No Injury | 0 | |
| Injury Severity Score: | | | 50 |

NISS

Data Format [autogenerated]

Definition

This is calculated as the sum of the squares of the top three scores regardless of body region.

Field Values

- Relevant NISS value for the constellation of injuries.

Additional Information

- As multiple injuries within the same body region are only assigned a single score, an alternative modification of the ISS, the "New Injury Severity Score" (NISS), has been proposed. This is calculated as the sum of the squares of the top three scores regardless of body region. NISS is not in widespread use but offers an additional measure of severity scoring. Example is a patient with gunshot wound to abdomen with injury to liver and stomach. AIS score for liver injury is 4 and AIS for stomach injury is 3. Using ISS, the score is 16 since it squares highest code for top 3 regions. Using NISS, the score is 25 indicating more severe injury in abdomen.

PROBABILITY OF SURVIVAL

Data Format [autogenerated]

State/Optional National Element

Definition

Probability of survival is auto calculated using trauma type (blunt or penetrating), age, RTS, and ISS.

Field Values

- Relevant Probability Of Survival value

Additional Information

Outcome Information

HOSPITAL LENGTH OF STAY

Data Format [auto-generated]

State Element

Definition

Auto calculated based on ED/acute care admit date and hospital discharge date

Field Values

- Relevant value for data element.
- Default is zero.

Additional Information

- Recorded in full day increments with any partial day listed as a full day.
- Field allows for multiple admission and discharge dates and autofills with total LOS. If a patient is admitted and discharged on the same date, the LOS is one day.
- If ED disposition is left AMA, transfer, home, died, then hospital LOS is zero. If ED disposition is OR and OR disposition is died, hospital LOS is zero.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Auto calculated | Element not included |

DISABILITY AT DISCHARGE

Data Format [auto-generated]

Definition

Abbreviated score measures feeding, locomotion and expression at discharge from hospital.

Field Values

- 1- Dependent - Total help
- 2- Dependent - Partial help
- 3- Independent with device
- 4- Independent
- Not Known

Additional Information

- Scores are used to auto calculate the patient's disability score.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| 1. Nurses Notes 2. Physician Reports | Element not included |

TOTAL ICU LENGTH OF STAY**Data Format** [numeric]**State/National Element****Definition**

The total number of patient days in any ICU (including all episodes).

Field Values

- Relevant value for data element.
- Default is zero.

Additional Information

- Recorded in full day increments with any partial day listed as a full day.
- The number of ICU days should be equal to or less than LOS.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|--|
| <ol style="list-style-type: none">1. ICU Nursing Notes2. Physician Progress Notes/Order3. Regular Nursing Progress Notes4. Hospital Specific Database (electronic notes)5. Verbal Report | <ol style="list-style-type: none">1. ICU Nursing Flow Sheet2. Calculate Based on Admission Form and Discharge Sheet3. Nursing Progress Notes |

TOTAL VENTILATOR DAYS

Data Format [numeric]

State/National Element

Definition

The total number of patient days spent on a mechanical ventilator (excluding time in the OR).

Field Values

- Relevant value for data element.

Additional Information

- Recorded in full day increments with any partial day listed as a full day.
- Field allows for multiple “start” and “stop” dates and calculates total days spent on a mechanical ventilator. If a patient begins and ends mechanical ventilation on the same date, the total ventilator days is one day.
- Excludes mechanical ventilation time associated with OR procedures.
- Non-invasive means of ventilatory support (CPAP or BIPAP) should not be considered in the calculation of ventilator hours.
**Above information is from the NTDS Data Dictionary 2011*
- The number of vent days should be equal to or less than ICU days.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|-----------------------------------|--|
| 1. Respiratory Therapy Notes | 1. ICU Respiratory Therapy Flowsheet |
| 2. ICU Nursing Notes | 2. ICU Nursing Flow Sheet |
| 3. Physician’s Progress Notes | 3. Physician’s Daily Progress Notes |
| 4. Regular Nursing Progress Notes | 4. Calculate Based on Admission Form and Discharge Summary |
| 5. Facility Specific Database | |
| 6. Verbal Report | |

HOSPITAL DISCHARGE DATE

Data Format [date]

*State/National Element***Definition**

The date the patient was discharged from the hospital.

Field Values

- Relevant value for data element.

Additional Information

- Collected as MM-DD-YYYY.
- Used to auto-generate an additional calculated field: Total Length of Hospital Stay (elapsed time from ED/hospital arrival to hospital discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none"> 1. Nurses Notes 2. Discharge Summary 3. Physician Progress Notes 4. Patient Information/Face Sheet 5. Facility Specific Computer | <ol style="list-style-type: none"> 1. Hospital Record 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Physician Discharge Summary |

HOSPITAL DISCHARGE TIME

Data Format [time]

*State/National Element***Definition**

The time the patient was discharged from the hospital.

Field Values

- Relevant value for data element.

Additional Information

- Collected as HH:MM.
- HH:MM should be collected as military time (00:00 – 23:59).
- Used to auto-generate an additional calculated field: Total Length of Hospital Stay (elapsed time from ED/hospital arrival to hospital discharge).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none"> 1. Nurses Notes 2. Discharge Summary 3. Physician Progress Notes 4. Patient Information/Face Sheet 5. Facility Specific Computer | <ol style="list-style-type: none"> 1. Hospital Record 2. Billing Sheet / Medical Records Coding Summary Sheet 3. Physician Discharge Summary |

BILLED HOSPITAL CHARGES

Data Format [numeric]

Definition

Total charges the patient was billed for the hospital stay.

Field Values

- Relevant value for data element.

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| Element not included | Element not included |

REIMBURSED CHARGES

Data Format [numeric]

Definition

The total amount reimbursed for hospital care.

Field Values

- Relevant value for data element.
- This may take several months to years for final payment.

Additional Information

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

HOSPITAL DISCHARGE DISPOSITION

Data Format [drop-down menu] single-choice

State/National Element

Definition

The disposition of the patient when discharged from the hospital or ED if not admitted to hospital.

Field Values

- | | |
|--|---|
| 1 Discharged/Transferred to a short-term general hospital for inpatient care | 6 Discharged home with no home services |
| 2 Discharged/Transferred to an Intermediate Care Facility (ICF) | 7 Discharged/Transferred to Skilled Nursing Facility |
| 3 Discharge/Transferred to home under care of organized home health service | 8 Discharged/ Transferred to hospice care |
| 4 Left against medical advice or discontinued care | 9 Discharged/Transferred to another type of rehabilitation or long-term care facility |
| 5 Expired | |

Additional Information

- Field values based upon UB-04 disposition coding.
- **Intermediate care facility:** A facility providing a level of medical care that is less than the degree of care and treatment that a hospital or skilled nursing facility is designed to provide but greater than the level of room and board.
- **Home Health Service:** A certified service approved to provide care received at home as part-time skilled nursing care, speech therapy, physical or occupational therapy or, part-time services of home health aides.
- **Hospice:** An organization which is primarily designed to provide pain relief, symptom management and supportive services for the terminally ill and their families.
- **Skilled Nursing Care:** Daily nursing and rehabilitative care that is performed only by or under the supervision of skilled professional or technical personnel. Skilled care includes administering medication, medical diagnosis and minor surgery.
- **If patient expired than additional information required** (ie Date/Time of death, Death Circumstances, Organ Donation, Autopsy Performed, Advanced Directive)
- **In Appendix C mapping table from NTRACS to NTDS**

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|--|
| 1. Nurses Notes | 1. Hospital Discharge Summary Sheet |
| 2. Discharge Summary | 2. Nurses' Notes |
| 3. Physician Report | 3. Case Manager/Social Services' Notes |
| 4. Transfer Form | |
| 5. ER Record | |
| 6. Consult Form | |

WORK-RELATED

Data Format [drop-down menu] single-choice

State/National Element

Definition

Indication of whether the injury occurred during paid employment.

Field Values

1 Yes

2 No

Additional Information

- **If entered Yes**, then enter the occupational industry associated with the patient's work environment.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|---|
| <ol style="list-style-type: none">1. EMS Form if Present from scene; the first ambulance; not transferring EMS unit2. First Referring Facility (if applicable)3. Trauma History and Physical (hand written)4. Hospital ED Nursing Notes5. Hospital History and Physical6. If transferred; the first referring hospital | <ol style="list-style-type: none">1. EMS Run Sheet2. Triage Form / Trauma Flow Sheet3. ED Nurses' Notes |

PATIENT'S OCCUPATIONAL INDUSTRY

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The occupational industry associated with the patient's work environment.

Field Values

- | | |
|---------------------------------------|---------------------------------|
| 1 Finance, Insurance, and Real Estate | 8 Construction |
| 2 Manufacturing | 9 Government |
| 3 Retail Trade | 10 Natural Resources and Mining |
| 4 Transportation and Public Utilities | 11 Information Services |
| 5 Agriculture, Forestry, Fishing | 12 Wholesale Trade |
| 6 Professional and Business Services | 13 Leisure and Hospitality |
| 7 Education and Health Services | 14 Other Services |

Additional Information

- Code as Not Applicable if injury is not work-related.
- If work related, also complete Patient's Occupation.
- Based upon US Bureau of Labor Statistics Industry Classification.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--|---|
| <ol style="list-style-type: none"> 1. Admission FACE sheet under occupation 2. First Referring Facility (if applicable) 3. Hospital ED Nursing Notes 4. Referring Hospital (if referred) 5. Hospital History and Physical 6. EMS | <ol style="list-style-type: none"> 1. Triage Form / Trauma Flow Sheet 2. EMS Run Sheet 3. ED Nurses' Notes |

PATIENT'S OCCUPATION

Data Format [drop-down menu] single-choice

*State/National Element***Definition**

The occupation of the patient.

Field Values

- | | |
|--|---|
| 1 Business and Financial Operations Occupations | 13 Computer and Mathematical Occupations |
| 2 Architecture and Engineering Occupations | 14 Life, Physical, and Social Science Occupations |
| 3 Community and Social Services Occupations | 15 Legal Occupations |
| 4 Education, Training, and Library Occupations | 16 Arts, Design, Entertainment, Sports, and Media |
| 5 Healthcare Practitioners and Technical Occupations | 17 Healthcare Support Occupations |
| 6 Protective Service Occupations | 18 Food Preparation and Serving Related |
| 7 Building and Grounds Cleaning and Maintenance | 19 Personal Care and Service Occupations |
| 8 Sales and Related Occupations | 20 Office and Administrative Support Occupations |
| 9 Farming, Fishing, and Forestry Occupations | 21 Construction and Extraction Occupations |
| 10 Installation, Maintenance, and Repair Occupations | 22 Production Occupations |
| 11 Transportation and Material Moving Occupations | 23 Military Specific Occupations |
| 12 Management Occupations | |

Additional Information

- Only completed if injury is work-related.
- If work related, also complete Patient's Occupational Industry.
- Based upon 1999 US Bureau of Labor Statistics Standard Occupational Classification (SOC).

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|------------------------------------|
| 1. Admission FACE sheet under occupation | 1. Triage Form / Trauma Flow Sheet |
| 2. First Referring Facility (if applicable) | 2. EMS Run Sheet |
| 3. Hospital ED Nursing Notes | 3. ED Nurses' Notes |
| 4. Referring Hospital (if referred) | |
| 5. Hospital History and Physical | |
| 6. EMS | |

Financial Information

PRIMARY METHOD OF PAYMENT

Data Format [drop-down menu] single-choice

State/National Element

Definition

Primary source of payment for hospital care.

Field Values

- | | |
|--------------------------------|--------------------------|
| 1 Medicaid | 6 Medicare |
| 2 Not Billed (for any reason) | 7 Other Government |
| 3 Self Pay | 8 Workers Compensation |
| 4 Private/Commercial Insurance | 9 Blue Cross/Blue Shield |
| 5 No Fault Automobile | 10 Other |

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|--|
| <ol style="list-style-type: none">1. Patient Information/FACE Sheet2. Billing Sheet3. Referring Facility Record | <ol style="list-style-type: none">1. Billing Sheet / Medical Records Coding Summary Sheet2. Hospital Admission Form |

SECONDARY METHOD OF PAYMENT

Data Format [drop-down menu] single-choice

Definition

Additional source of payment for hospital care.

Field Values

| | |
|--------------------------------|--------------------------|
| 1 Medicaid | 6 Medicare |
| 2 Not Billed (for any reason) | 7 Other Government |
| 3 Self Pay | 8 Workers Compensation |
| 4 Private/Commercial Insurance | 9 Blue Cross/Blue Shield |
| 5 No Fault Automobile | 10 Other |

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---|----------------------------|
| <ol style="list-style-type: none">1. Patient Information/FACE Sheet2. Billing Sheet3. Referring Facility Record | Element not included |

Quality Assurance Information

HOSPITAL COMPLICATIONS

Data Format [drop-down menu] multiple-choice

State Element

Definition Any medical complication that occurred during the patient's stay at your hospital.

Field Values

NE & NTDB complication list (divided into prehospital and hospital, and subcategorized under system):

| Sections | Complication Description |
|-----------------------------------|-------------------------------------|
| Prehospital Airway | Aspiration |
| | Esophageal Intubation |
| | Extubation, Unintentional |
| | Mainstem Intubation |
| | Unable To Intubate |
| Prehospital Fluids | Inappropriate Fluid Management |
| | Unable To Start IV |
| Prehospital Miscellaneous | Other Prehospital Fluid |
| Hospital Airway | Esophageal Intubation |
| | Extubation, Unintentional |
| | Mainstem Intubation |
| | Unplanned intubation |
| Pulmonary | Acute Respiratory Distress Syndrome |
| | Aspiration/pneumonia |
| | Empyema |
| | Fat Embolus |
| | Pneumonia |
| | Pneumothorax (barotrauma) |
| | Pneumothorax (iatrogenic) |
| | Pneumothorax (recurrent) |
| | Pneumothorax (tension) |
| | Pulmonary Edema |
| | Pulmonary Embolus |
| | Respiratory Failure |
| | Upper Airway Obstruction |
| | Pleural Effusion |
| | Other Pulmonary |
| | Cardiovascular |
| Cardiogenic Shock | |
| Congestive Heart Failure | |
| Myocardial Infarction | |
| Pericarditis | |
| Pericardial Effusion Or Tamponade | |
| Shock | |
| Base deficit | |
| Bleeding | |
| Other Cardiovascular | |

| | |
|--|--|
| Gastrointestinal | Abdominal Compartment Syndrome |
| | Abdominal fascia left open |
| | Anastomotic Leak |
| | Bowel Injury - Iatrogenic |
| | Wound disruption |
| | Enterotomy - Iatrogenic |
| | Fistula |
| | Hemorrhage - Lower GI |
| | Hemorrhage - Upper GI |
| | Ileus |
| | Peritonitis |
| | Small Bowel Obstruction |
| | Ulcer - Duodenal/gastric |
| | Other GI |
| Hepatic, Pancreatic, Biliary, Splenic | Acalculous Cholecystitis |
| | Hepatitis |
| | Liver Failure |
| | Pancreatic Fistula |
| | Pancreatitis |
| | Splenic Injury (iatrogenic) |
| | Jaundice |
| | Other Hepatic/biliary |
| Hematologic | Coagulopathy |
| | Disseminated Intravascular Coagulation |
| | Transfusion Complication |
| | Other Hematologic |
| Infection (Nonpulmonary, Nonorthopedic) | Cellulitis/traumatic Injury |
| | Fungal Sepsis |
| | Superficial surgical site infection |
| | Organ/space surgical site infection |
| | Deep surgical site infection |
| | Line Infection |
| | Necrotizing Fasciitis |
| | Systemic Sepsis |
| | Sinusitis |
| | Yeast Infection |
| | Other Infection |
| Renal/Genitourinary | Acute Renal Failure |
| | Ureteral Injury |
| | Urinary Tract Infection, Early |
| | Urinary Tract Infection, Late |
| | Other Renal/GU |
| Musculoskeletal/Integumentary | Extremity Compartmental Syndrome |

| | |
|----------------------|--|
| | Decubitus ulcer |
| | Loss Of Reduction/fixation |
| | Nonunion |
| | Osteomyelitis |
| | Orthopaedic Wound Infection |
| | Failure Of Fracture/fixation |
| | Other Musculoskeletal/integumentary |
| Neurologic | Drug or Alcohol Withdrawal Syndrome |
| | Anoxic Encephalopathy |
| | Intracranial pressure elevation |
| | Brain Death |
| | Coma |
| | Diabetes Insipidus |
| | Meningitis |
| | Neuropraxia (iatrogenic) |
| | Progression Of Original Neurologic Insult |
| | Seizure In Hospital |
| | Syndrome Of Inappropriate Antidiuretic Hormone |
| | Stroke/CVA |
| | Ventriculitis-postsurgical |
| | Other Neurologic |
| Vascular | Anastomotic Hemorrhage |
| | Deep Venous Thrombosis (DVT) thrombophlebitis |
| | Embolus (nonpulmonary) |
| | Thrombosis |
| | Graft/prosthesis/flap failure |
| | Gangrene |
| | Other Vascular |
| Miscellaneous | Anesthetic Complication |
| | Hypothermia |
| | Readmission |
| | Postoperative Hemorrhage |
| | Dead on arrival |
| | Other Miscellaneous |
| | Not Available |

Additional Information

- The value "N/A" should be used for patients with no complications.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|---------------------------------|-----------------------------------|
| 1. Nurses Notes | 1. Discharge Sheet |
| 2. Physicians Reports | 2. History and Physical |

| | |
|--|--|
| <ul style="list-style-type: none">3. Discharge Summary4. History and Physical5. Verbal Report6. Outside Facility Follow-up Document | <ul style="list-style-type: none">3. Billing Sheet |
|--|--|

STATUS**Data Format** [drop-down menu]**Definition**

Open or closed for loop closure

Field Values

- Relevant value for data element.

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

OCCURRENCE DATE**Data Format** [date]**Definition**

Date the complication occurred.

Field Values

- Recorded as MM-DD-YYYY

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

DETERMINATION**Data Format** [drop-down menu]**Definition**

Indicates what caused the complication.

Field Values

- Disease-related, provider related or system-related
- Disease related- an event or complication that is an expected sequel of a disease, illness or injury.
- Provider-related- an event or complication largely due to provider-related provision of care in a well-functioning system
- System-related- an event or complication that goes beyond a single provider or department, i.e operating room availability, blood availability, diagnostic procedure availability

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

PREVENTABILITY

Data Format [drop-down menu]

Definition

Indicates what action could have prevented complication if possible.

Field Values

- Non-preventable - an event or complication that is a sequel of a procedure, disease, illness or injury for which reasonable and appropriate steps had been taken
- Potentially-preventable - an event or complication that is a sequel of a procedure, disease, illness or injury that had the potential to be prevented or substantially improved
- Preventable - an event or complication that is a sequel of a procedure, disease, illness or injury that is likely to have been prevented or substantially improved had appropriate steps been taken

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

JUDGEMENT

Data Format [drop-down menu]

Definition

Determination of preventability by multidisciplinary trauma committee

Field Values

- Acceptable
- Acceptable with reservations
- Unacceptable
- Defer peer review
- Will never undergo PR
- Not Available
- Not Recorded

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

CORRECTIVE ACTIONS

Data Format [text]

Definition

When a consistent problem or inappropriate variations are identified, corrective action must be taken and documented.

Field Values

- Text description

Additional Information

Examples of corrective action include:

- Guideline, protocol or pathway development or revision
- Targeted education
- Enhanced resources, facilities or communication
- Process improvement team implementation
- Counseling
- Peer review presentation
- Change in provider privilege or credentials
- External review

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

CLOSING THE LOOP

Data Format [text]

Definition

Performance Improvement entails demonstrating that corrective action has desired effect as determined by continuous evaluation.

Field Values

- Text description

Data Source Hierarchy

| NE Data Source Hierarchy | NTDS Data Source Hierarchy |
|--------------------------|----------------------------|
| Element not included | Element not included |

FURTHER EXPLANATION/ACTION

Data Format [text]

Definition

Brief narrative describing patient scenario, complication, prevention measures, corrective action, preventability, etc.

Field Values

- Text description

Additional Information

- Brief narrative describing patient scenario, complication, prevention measures, corrective action, preventability, etc.
- Example: 27yo fall (date) with severe head injury developed posterior tibial DVT (date). Pneumatic compression devices applied for prevention. Unable to anticoagulate this patient due to severe head injury. Reviewed at trauma committee or by Physician or trending. Non-preventable. If preventable, describe actions taken for loop closure. Useful for monthly reports.

PERFORMANCE IMPROVEMENT

Data Format [drop-down menu] multiple-choice

State Element

Definition

List of American College of Surgeons (ACS) and **NE performance improvement indicators**.

Field Values

| |
|--|
| No Performance Improvement Issues |
| Missing EMS Report (State & ACSAF1) |
| Ambulance Scene Time > 20 Minutes (ACSFA1) |
| Response time > 30 Minutes (dispatch to arrival on scene) (Prehospital) (State) |
| Vital signs are not recorded (Prehospital) (State) |
| Glasgow Coma Score not present (Prehospital) (State) |
| Absent Hourly Charting (ACSFA2) |
| ER Temperature not recorded for patients < 12 years of age (State) |
| Physician or Physician Extender response > 30 min in basic or general trauma center. (State) |
| Physician response > 15 min in advanced or comprehensive trauma center (State) |
| 2 hours at initial hospital before transfer (State) |
| Transfer After 6 Hours In The Initial Hospital (ACSFA3) |
| Glasgow Coma Score <= 8, no Endotracheal Tube Or Surgical Airway (State & ACSAF3) |
| Glasgow Coma Score < 14, No Head CT (ACSFA2) |
| Trauma Death (Hospital or Prehospital) (State & ACSAF12) |
| Timeliness And Availability Of X-ray Reports (ACS996) |
| Timely Participation Of Subspecialists (Delay in Trauma Team Activation, Obtaining Consultation or MD response) (ACS997) |
| Delay to Operating Room or Availability Of Operating Room - Acute And Subacute (ACS998) |
| Nonoperative Rx Of Gunshot Wound To The Abdomen (ACSFA4) |
| No Laparotomy <= 1 Hr., Abdominal Injuries, And Systolic BP < 90 (ACSFA5A) |
| Laparotomy After 4 Hours (ACSFA5B) |
| Craniotomy After 4 Hrs., With Epidural Or Subdural, Excluding ICP Monitoring (ACSFA6) |
| Initial Rx > 8 Hrs Of Open Tibia Fx, Exc. Low Velocity Gunshot Wound (ACSFA7) |
| Abdominal, Thoracic, Vascular, Or Cranial Surgery After 24 Hours (ACSFA8) |
| Admit By Nonsurgeon (ACSFA9) |
| Reintubation Within 48 Hours Of Extubation (ACSFA4) |
| Nonfixation Of Femoral Diaphyseal Fracture In Adult (ACSFA10) |
| Compliance With Guidelines, Protocols, And Pathways (ACS991) |
| Professional Behavior (ACS9910) |
| Availability Of Family Services (ACS9911) |
| Insurance Carrier Denials (ACS9912) |
| Consistency Of Outpatient Follow-up (ACS9913) |
| Patient Satisfaction (ACS9914) |
| Appropriateness Of Prehospital And Ed Triage (ACS992) |
| Delay In Assessment, Diagnosis, Technique, Disposition, Or Treatment (ACS993) |
| Error In Judgment, Communication, Diagnosis, Technique Or Treatment (ACS994) |
| Appropriateness, Completeness And Legibility Of Documentation (ACS995) |
| Timeliness Of Rehabilitation (ACS999) |

Additional Information

- They are listed in order as no performance improvement issues, prehospital, hospital (ED and hospital) and hospital specific filters. (State- state performance filter (**bold**); ACS# - American College of Surgery performance improvement filters)

HOSPITAL SPECIFIC PERFORMANCE IMPROVEMENT INDICATORS

Data Format [text]

Definition

Would be identified by hospital as additional performance improvement indicators

Field Values

- Text description

Additional Information

STATUS

Data Format [drop-down menu]

Definition

Open or closed for loop closure

Field Values

- Relevant value for data element.

OCCURRENCE DATE

Data Format [date]

Definition

Date the complication occurred.

Field Values

- Recorded as MM-DD-YYYY

DETERMINATION

Data Format [drop-down menu]

Definition

Indicates what caused the complication.

Field Values

- Disease-related, provider related or system-related
- Disease related- an event or complication that is an expected sequel of a disease, illness or injury.
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PREVENTABILITY

Data Format [drop-down menu]

Definition

Indicates what action could have prevented complication if possible.

Field Values

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- Preventable - an event or complication that is a sequel of a procedure, disease, illness or injury that is likely to have been prevented or substantially improved had appropriate steps been taken

JUDGEMENT

Data Format [drop-down menu]

Definition

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- Acceptable
- Acceptable with reservations
- Unacceptable
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- Not Available
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CORRECTIVE ACTIONS

Data Format [text]

Definition

When a consistent problem or inappropriate variations are identified, corrective action must be taken and documented.

Field Values

- Text description

Additional Information

Examples of corrective action include:

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- Targeted education
- Enhanced resources, facilities or communication
- Process improvement team implementation
- Counseling
- Peer review presentation
- Change in provider privilege or credentials
- External review

CLOSING THE LOOP

Data Format [text]

Definition

Performance Improvement entails demonstrating that corrective action has desired effect as determined by continuous evaluation.

Field Values

- Text description

FURTHER EXPLANATION/ACTION

Data Format [text]

Definition

Brief narrative describing patient scenario, complication, prevention measures, corrective action, preventability, etc.

Field Values

- Text description

Additional Information

- Brief narrative describing patient scenario, complication, prevention measures, corrective action, preventability, etc.
- Example: 27yo fall (date) with severe head injury developed posterior tibial DVT (date). Pneumatic compression devices applied for prevention. Unable to anticoagulate this patient due to severe head injury. Reviewed at trauma committee or by Physician or trending. Non-preventable. If preventable, describe actions taken for loop closure. Useful for monthly reports.

Appendix A: Glossary of Terms

Co-Morbid Conditions

Alcoholism: To be determined based upon the brief screening tool used at your institution.

ICD-9 Code Range: 291.0-291.3, 291.5, 291.81, 291.89, 291.9, 303.00-303.93, 305.00-305.03, V11.3

Ascites: The presence of fluid accumulation (other than blood) in the peritoneal cavity noted on physical examination, abdominal ultrasound, or abdominal CT/MRI.

ICD-9 Code Range: 789.5 (pre 2008), 789.59

Bleeding disorder: Any condition that places the patient at risk for excessive bleeding due to a deficiency of blood clotting elements (e.g., vitamin K deficiency, hemophilia, thrombocytopenia, chronic anticoagulation therapy with Coumadin, Plavix, or similar medications). Do not include the patient on chronic aspirin therapy.

ICD-9 Code Range: for example - 269.0, 286.0, 286.1, 286.4, 287.1, 287.3 (pre 2006)-287.5, 287.9

Chemotherapy for cancer within 30 days: A patient who had any chemotherapy treatment for cancer in the 30 days prior to admission. Chemotherapy may include, but is not restricted to, oral and parenteral treatment with chemotherapeutic agents for malignancies such as colon, breast, lung, head and neck, and gastrointestinal solid tumors as well as lymphatic and hematopoietic malignancies such as lymphoma, leukemia, and multiple myeloma.

ICD-9 Code Range: V58.1(pre 2006), V58.11

Cirrhosis: Documentation in the medical record of cirrhosis, which might also be referred to as end stage liver disease. If there is documentation of prior or present esophageal or gastric varices, portal hypertension, previous hepatic encephalopathy, or ascites with notation of liver disease, then cirrhosis should be considered present. Cirrhosis should also be considered present if documented by diagnostic imaging studies or at laparotomy/laparoscopy.

Congenital Anomalies: Defined as documentation of a cardiac, pulmonary, body wall, CNS/spinal, GI, renal, orthopaedic, or metabolic congenital anomaly.

ICD-9 Code Range: 740.0 through 759.9, 758.3 (pre 2005), 752.8 (pre 2004)

Congestive heart failure: Defined as the inability of the heart to pump a sufficient quantity of blood to meet the metabolic needs of the body or can do so only at an increased ventricular filling pressure. To be included, this condition must be noted in the medical record as CHF, congestive heart failure, or pulmonary edema with onset or increasing symptoms within 30 days prior to injury. Common manifestations are:

1. Abnormal limitation in exercise tolerance due to dyspnea or fatigue
2. Orthopnea (dyspnea on lying supine)
3. Paroxysmal nocturnal dyspnea (awakening from sleep with dyspnea)
4. Increased jugular venous pressure
5. Pulmonary rales on physical examination
6. Cardiomegaly
7. Pulmonary vascular engorgement

ICD-9 Code Range: 398.91, 402.01, 402.11, 402.91, 404.11, 404.13, 404.91, 404.93, 425.0-425.9, 428.0

Current smoker: A patient who has smoked cigarettes in the year prior to admission. Do not include patients who smoke cigars or pipes or use chewing tobacco.

Currently requiring or on dialysis: Acute or chronic renal failure prior to injury that was requiring periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration.

ICD-9 Code Range: V45.1

CVA/residual neurological deficit: A history prior to injury of a cerebrovascular accident (embolic, thrombotic, or hemorrhagic) with persistent residual motor sensory, or cognitive dysfunction. (E.g., hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory).

ICD-9 Code Range: 430-438.9, 436

Diabetes mellitus: Diabetes mellitus prior to injury that required exogenous parenteral insulin or an oral hypoglycemic agent.

ICD-9 Code Range: 250.00-250.33, 250.40-250.73

Disseminated cancer: Patients who have cancer that:

1. Has spread to one site or more sites in addition to the primary site AND
2. In whom the presence of multiple metastases indicates the cancer is widespread, fulminant, or near terminal. Other terms describing disseminated cancer include “diffuse,” “widely metastatic,” “widespread,” or “carcinomatosis.” Common sites of metastases include major organs (e.g., brain, lung, liver, meninges, abdomen, peritoneum, pleura, bone).

ICD-9 Code Range: 196.0-199.1

Do Not Resuscitate (DNR) status: The patient had a Do Not Resuscitate (DNR) document or similar advance directive recorded prior to injury.

Esophageal varices: Esophageal varices are engorged collateral veins in the esophagus which bypass a scarred liver to carry portal blood to the superior vena cava. A sustained increase in portal pressure results in esophageal varices which are most frequently demonstrated by direct visualization at esophagoscopy.

ICD-9 Code Range: 456.0-456.20

Functionally dependent health status: Pre-injury functional status may be represented by the ability of the patient to complete activities of daily living (ADL) including: bathing, feeding, dressing, toileting, and walking. This item is marked YES if the patient, prior to injury, was partially dependent or completely dependent upon equipment, devices or another person to complete some or all activities of daily living. Formal definitions of dependency are listed below:

1. Partially dependent: The patient requires the use of equipment or devices coupled with assistance from another person for some activities of daily living. Any patient coming from a nursing home setting who is not totally dependent would fall into this category, as would any patient who requires kidney dialysis or home ventilator support that requires chronic oxygen therapy yet maintains some independent functions.
2. Totally dependent: The patient cannot perform any activities of daily living for himself/herself. This would include a patient who is totally dependent upon nursing care, or a dependent nursing home patient. All patients with psychiatric illnesses should be evaluated for their ability to function with or without assistance with ADLs just as the non-psychiatric patient.

History of angina within past 1 month: Pain or discomfort between the diaphragm and the mandible resulting from myocardial ischemia. Typically angina is a dull, diffuse (fist sized or larger) substernal chest discomfort precipitated by exertion or emotion and relieved by rest or nitroglycerine. Radiation often occurs to the arms and shoulders and occasionally to the neck, jaw (mandible, not maxilla), or interscapular region. For patients on anti-anginal medications, enter yes only if the patient has had angina within one month prior to admission.

ICD-9 Code Range: V12.50

History of Myocardial Infarction within past 6 months: The history of a non-Q wave, or a Q wave infarction in the six months prior to injury as diagnosed in the patient's medical record.

ICD-9 Code Range: 412

History of revasc/amp for PVD (History of revascularization/amputation for peripheral vascular disease): Any type of angioplasty or revascularization procedure for atherosclerotic PVD (e.g., aortafemoral, femoral-femoral, femoral-popliteal) or a patient who has had any type of amputation procedure for PVD (e.g., toe amputations, transmetatarsal amputations, below the knee or above the knee amputations). Patients who have had amputation for trauma or resection of abdominal aortic aneurysms would not be included.

Hypertension requiring medication: History of a persistent elevation of systolic blood pressure >140 mm Hg and a diastolic blood pressure >90 mm Hg requiring an antihypertensive treatment (e.g., diuretics, beta blockers, ACE inhibitors, calcium channel blockers).

ICD-9 Code Range: 401.0-401.9, 402.00, 402.10, 402.90, 403.00, 403.10, 403.90, 403.91, 404.00, 404.10, 404.90, 405.01-405.99

Impaired sensorium: Patients should be noted to have an impaired sensorium if they had mental status changes, and/or delirium in the context of a current illness prior to injury. Patients with chronic or longstanding mental status changes secondary to chronic mental illness (e.g., schizophrenia) or chronic dementing illnesses (e.g., multi-infarct dementia, senile dementia of the Alzheimer's type) should also be included. Mental retardation would qualify as impaired sensorium. For pediatric populations, patients with documented behavior disturbances, attention disorders, delayed learning or delayed development should be included.

ICD-9 Code Range: 290-290.9, 299.00, 312.9, 314.00, 314.01, 315.2, 315.31, 315.39, 315.5, 315.8, 315.9, 317, 318.0, 318.1, 319, 331.1 (pre 2004), 331.11-331.2, V11.0, V11.1, V11.2, V11.8

Prematurity: Defined as documentation of premature birth, a history of bronchopulmonary dysplasia, ventilator support for greater than 7 days after birth, or the diagnosis of cerebral palsy. Premature birth is defined as infants delivered before 37 weeks from the first day of the last menstrual period.

ICD-9 Code Range: 343.0 through 343.9, 765.00 through 765.19, 770.7

Obesity: Defined as a Body Mass Index of 40 or greater.

ICD-9 Code Range: 278.00-278.01

Respiratory Disease: Defined as severe chronic lung disease, chronic asthma; cystic fibrosis; or COPD (such as emphysema and /or chronic bronchitis) resulting in any one or more of the following:

1. Functional disability from COPD (e.g., dyspnea, inability to perform ADLs)
2. Hospitalization in the past for treatment of COPD
3. Requires chronic bronchodilator therapy with oral or inhaled agents
4. An FEV1 of <75% of predicted on pulmonary function testing

Do not include patients whose only pulmonary disease is *acute* asthma. Do not include patients with diffuse interstitial fibrosis or sarcoidosis.

ICD-9 Code Range: 277.00, 490 through 493.92

Steroid use: Patients that required the regular administration of oral or parenteral corticosteroid medications (e.g., Prednisone, Decadron) in the 30 days prior to injury for a chronic medical condition (e.g., COPD, asthma, rheumatologic disease, rheumatoid arthritis, inflammatory bowel disease). Do not include topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally.

Hospital Complications

Acute renal failure: A patient who did not require dialysis prior to injury, who has worsening renal dysfunction after injury requiring hemodialysis, ultrafiltration, or peritoneal dialysis. If the patient refuses treatment (e.g., dialysis), the condition is still considered present.

ICD-9 Code Range: 403.11, 403.91, 404.12, 404.92, 582.0-582.9, 583.0-583.7, 584.5-584.9 585 (pre 2006), 586, 588.0, 958.5

ARDS: Adult (Acute) Respiratory Distress Syndrome: ARDS occurs in conjunction with catastrophic medical conditions, such as pneumonia, shock, sepsis (or severe infection throughout the body, sometimes also referred to as systemic infection, and may include or also be called a blood or blood-borne infection), and trauma. It is a form of sudden and often severe lung failure characterized by $\text{PaO}_2/\text{FiO}_2 \leq 200$, decreased compliance, and diffuse bilateral pulmonary infiltrates without associated clinical evidence of CHF. The process must persist beyond 36 hours and require mechanical ventilation.

ICD-9 Code Range: ICD-9 codes 518.5 and 518.82 cross-referenced with procedural codes for ventilatory support (96.70, 96.71 and 96.72).

Cardiac arrest with CPR: The absence of a cardiac rhythm or presence of chaotic cardiac rhythm that results in loss of consciousness requiring the initiation of any component of basic and/or advanced cardiac life support. Excludes patients that arrive at the hospital in full arrest.

ICD-9 Code Range: 427.5

Catheter-Related Blood Stream Infection: Defined as organism cultured from the bloodstream that is not related to an infection at another site and attributed to a central venous catheter. Patients must have evidence of infection including at least one of:

1. Fever >38 C
2. WBC > 10,000 or < 3000 per cubic millimeter
3. Hypotension (SBP <90) or >25% drop in systolic blood pressure

Patients must also have evidence of bacteremia believed to be related to the central venous catheter:

1. Recognized pathogen from one or more blood cultures and organism cultured is not related to an infection at another site
2. If a common skin contaminant (e.g. coagulase negative staphylococci, diphtheroids, propionibacterium, strep viridans), the organism must be cultured from at least two cultures within a 48 hour period

Erythema at the entry site of the central line or positive cultures on the tip of the line in the absence of positive blood cultures is not considered a CRBSI

ICD-9 Code Range: 993.1, 790.7, 038.0, 038.1, 038.10, 038.11, 038.19, 038.3, 038.4-038.43, 038.49, 038.8, 038.9,

Decubitus ulcer: Defined as a "pressure sore" resulting from pressure exerted on the skin, soft tissue, muscle, or bone by the weight of an individual against a surface beneath. Individuals unable to avoid long periods of uninterrupted pressure over bony prominences are at increased risk for the development of necrosis and ulceration.

ICD-9 Code Range: 707.0 (pre 2005), 707.00 through 707.09

Deep surgical site infection: Defined as an infection that occurs within 30 days after an operation and the infection appears to be related to the operation. The infection should involve deep soft tissues (e.g., fascial and muscle layers) at the site of incision and at least one of the following:

1. Purulent drainage from the deep incision but not from the organ/space component of the surgical site.
2. A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (> 38 C), localized pain, or tenderness, unless site is culture-negative.
3. An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathologic or radiologic examination.
4. Diagnosis of a deep incision infection by a surgeon or attending physician.

Note: Report infections that involve both superficial and deep incision sites as deep surgical site infection. If wound spontaneously opens as a result of infection, code for Deep Surgical Site Infection and Wound Disruption.

ICD9 Code Range: 998.59

Drug or alcohol withdrawal syndrome: Defined as a set of symptoms that may occur when a person who has been drinking too much alcohol or habitually using certain drugs suddenly stops. Symptoms may include: activation syndrome (i.e., tremulousness, agitation, rapid heart beat and high blood pressure), seizures, hallucinations or delirium tremens.

ICD-9 Code Range: 291.0, 291.3, 291.81, 292.0

Deep Vein Thrombosis (DVT)/thrombophlebitis: The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. This diagnosis may be confirmed by a venogram, ultrasound, or CT. The patient must be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava.

ICD-9 Code Range: 451.0, 451.11, 451.19, 451.2, 451.81- 451.84, 451.89, 451.9, 453.40, 459.10-459.19, 997.2, 999.2

Extremity compartment syndrome: Defined as a condition *not present at admission* in which there is documentation of tense muscular compartments of an extremity (through clinical assessment or direct measurement of intracompartmental pressure) requiring fasciotomy. Compartment syndromes usually involve the leg but can also occur in the forearm, arm, thigh, and shoulder.

ICD-9 Code Range: 998.89, 958.90-958.93 and 958.99

Graft/prosthesis/flap failure: Mechanical failure of an extracardiac vascular graft or prosthesis including myocutaneous flaps and skin grafts requiring return to the operating room or a balloon angioplasty.

ICD-9 Code Range: 996.00, 996.1, 996.52, 996.61, 996.62

Myocardial infarction: A new acute myocardial infarction occurring during hospitalization (within 30 days of injury).

ICD-9 Code Range: 410.00, 410.02, 410.10, 410.12, 410.20, 410.22, 410.30, 410.32, 410.40, 410.42, 410.50, 410.52, 410.60, 410.62, 410.70, 410.72, 410.80, 410.82, 410.90, 410.92

Organ/space surgical site infection: Defined as an infection that occurs within 30 days after an operation and infection involves any part of the anatomy (e.g., organs or spaces) other than the incision, which was opened or manipulated during a procedure; and at least one of the following, including:

1. Purulent drainage from a drain that is placed through a stab wound or puncture into the organ/space;
2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space;

3. An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination; or
4. Diagnosis of an organ/space SSI by a surgeon or attending physician.

ICD9 Code Range: 998.59

Osteomyelitis: Defined as meeting at least one of the following criteria:

1. Organisms cultured from bone.
2. Evidence of osteomyelitis on direct examination of the bone during a surgical operation or histopathologic examination.
3. At least two of the following signs or symptoms with no other recognized cause: fever (38° C), localized swelling, tenderness, heat, or drainage at suspected site of bone infection and at least one of the following:
 - a. Organisms cultured from blood
 - b. Positive blood antigen test (e.g., H. influenzae, S. pneumoniae)
 - c. Radiographic evidence of infection, e.g., abnormal findings on x-ray, CT scan, magnetic resonance imaging (MRI), radiolabel scan (gallium, technetium, etc.).

ICD-9 Code Range: 730.00-730.09

Pneumonia: Patients with evidence of pneumonia that develops during the hospitalization. Patients with pneumonia must meet at least one of the following two criteria:

Criterion 1. Rales or dullness to percussion on physical examination of chest AND any of the following:

- a. New onset of purulent sputum or change in character of sputum
- b. Organism isolated from blood culture
- c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy

Criterion 2. Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion AND any of the following:

- a. New onset of purulent sputum or change in character of sputum
- b. Organism isolated from the blood
- c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
- d. Isolation of virus or detection of viral antigen in respiratory secretions
- e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen
- f. Histopathologic evidence of pneumonia

ICD-9 Code Range: 480.0-480.3, 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.49, 482.81-482.89, 482.9, 483.0, 483.1, 483.8, 484.1, 484.8, 485, 486

Pulmonary embolism: Defined as a lodging of a blood clot in a pulmonary artery with subsequent obstruction of blood supply to the lung parenchyma. The blood clots usually originate from the deep leg veins or the pelvic venous system. Consider the condition present if the patient has a V-Q scan interpreted as high probability of pulmonary embolism or a positive pulmonary arteriogram or positive CT angiogram.

ICD-9 Code Range: 415.11, 415.19

Severe sepsis: Sepsis and/or Severe Sepsis: Defined as an obvious source of infection with bacteremia and two or more of the following:

1. Temp > 38 degrees C or < 36 degrees C
2. White Blood Cell count > 12,000/mm³, or >20% immature (Source of Infection)

3. Hypotension – (Severe Sepsis)
4. Evidence of hypoperfusion: (Severe Sepsis)
 - A. Anion gap or lactic acidosis or
 - B. Oliguria, or
 - C. Altered mental status

ICD-9 Code Range: 995.91, 995.92

Stroke/CVA: Following injury, patient develops an embolic, thrombotic, or hemorrhagic vascular accident or stroke with motor sensory, or cognitive dysfunction (e.g., hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory) that persists for 24 or more hours.

ICD-9 Code Range: 997.02

Superficial surgical site infection: Defined as an infection that occurs within 30 days after an operation and infection involves only skin or subcutaneous tissue of the incision and at least one of the following:

1. Purulent drainage, with or without laboratory confirmation, from the superficial incision.
2. Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.
3. At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat and superficial incision is deliberately opened by the surgeon, unless incision is culture-negative.
4. Diagnosis of superficial incisional surgical site infection by the surgeon or attending physician.

Do not report the following conditions as superficial surgical site infection:

1. Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration).
2. Infected burn wound.
3. Incisional SSI that extends into the fascial and muscle layers (see deep surgical site infection).

ICD9 Code Range: 998.59

Unplanned intubation: Patient requires placement of an endotracheal tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis. In patients who were intubated in the field or Emergency Department, or those intubated for surgery, unplanned intubation occurs if they require reintubation after being extubated.

Unplanned return to the ICU: Unplanned return to the intensive care unit after initial ICU discharge. Does not apply if ICU care is required for postoperative care of a planned surgical procedure.

Unplanned return to the OR: Unplanned return to the operating room after initial operation management for a similar or related previous procedure.

Urinary Tract Infection: Defined as an infection anywhere along the urinary tract with clinical evidence of infection, which includes at least one of

1. Fever > 38.5 C
2. WBC > 100,000 or < 3000 per cubic millimeter
3. Urgency
4. Dysuria
5. Suprapubic tenderness

ICD9 Code Range: 599.0

Other Terms

Foreign Visitor is defined as any person visiting a country other than his/her usual place of residence for any reason without intending to receive earnings in the visited country.

Intermediate care facility: A facility providing a level of medical care that is less than the degree of care and treatment that a hospital or skilled nursing facility is designed to provide but greater than the level of room and board.

Home Health Service: A certified service approved to provide care received at home as part-time skilled nursing care, speech therapy, physical or occupational therapy or part-time services of home health aides.

Homeless is defined as a person who lacks housing. The definition also includes a person living in transitional housing or a supervised public or private facility providing temporary living quarters.

Hospice: An organization which is primarily designed to provide pain relief, symptom management and supportive services for the terminally ill and their families.

Migrant Worker is defined as a person who temporarily leaves his/her principal place of residence within a country in order to accept seasonal employment in the same country.

Operative and/or essential procedures is defined as procedures performed in the Operating Room, Emergency Department, or Intensive Care Unit that were essential to the diagnoses, stabilization, or treatment of the patient's specific injuries. Repeated diagnostic procedures (e.g., repeated CT scan) should not be recorded (record only the first procedure).

Skilled Nursing Care: Daily nursing and rehabilitative care that is performed only by or under the supervision of skilled professional or technical personnel. Skilled care includes administering medication, medical diagnosis and minor surgery.

Undocumented Citizen is defined as a national of another country who has entered or stayed in another country without permission.

Appendix B: NTDS Hospital Procedures Guide

Diagnostic & Therapeutic Imaging

Computerized tomographic studies *
Diagnostic ultrasound (includes FAST) *
Doppler ultrasound of extremities *
Angiography
Angioembolization
Echocardiography
Cystogram
IVC filter
Urethrogram

Cardiovascular

Central venous catheter *
Pulmonary artery catheter *
Cardiac output monitoring *
Open cardiac massage
CPR

CNS

Insertion of ICP monitor *
Ventriculostomy *
Cerebral oxygen monitoring *

Musculoskeletal

Soft tissue/bony debridements *
Closed reduction of fractures
Skeletal and halo traction
Fasciotomy

Genitourinary

Ureteric catheterization (i.e. Ureteric stent)
Suprapubic cystostomy

Transfusion

The following blood products should be captured over first 24 hours after hospital arrival:

Transfusion of red cells *
Transfusion of platelets *
Transfusion of plasma *

In addition to coding the individual blood products listed above assign the 99.01 ICD-9 procedure code on patients that receive > 10 units of blood products over first 24 hours following hospital arrival *

Respiratory

Insertion of endotracheal tube*
Continuous mechanical ventilation *
Chest tube *
Bronchoscopy *
Tracheostomy

Gastrointestinal

Endoscopy (includes gastroscopy, sigmoidoscopy, colonoscopy)
Gastrostomy/jejunostomy (percutaneous or endoscopic)
Percutaneous (endoscopic) gastrojejunoscopy

Other

Hyperbaric oxygen
Decompression chamber
TPN *

Appendix C: NTDS Mapping to NTRACS fields

| NTRACS Field Values | NTDB Field Values |
|---------------------------------------|---|
| Burn Center | 1 Discharged/Transferred to a short-term general hospital for inpatient care |
| Trauma Center | |
| Hosp Transfer | |
| Mental Health | |
| Crisis Center | |
| Psychiatric Hospital | |
| Children's Hospital | |
| Nursing Home | 2 Discharged/Transferred to an Intermediate Care Facility (ICF) |
| Assisted Living | 3 Discharge/Transferred to home under care of organized home health service |
| Home Health | 4 Left against medical advice or discontinued care |
| AMA | 5 Expired |
| Death | 6 Discharged home with no home services |
| Home | 7 Discharged/Transferred to Skilled Nursing Facility |
| Jail | 8 Discharged/Transferred to hospice care |
| Subacute setting, SNF (including TCU) | 9 Discharged/Transferred to another type of rehabilitation or long-term care facility |
| Swing Bed | |
| Hospice | |
| Rehabilitation Facility/LTCF | |