

Ohio Trauma Registry 2018

Trauma Acute Care Registry Data Dictionary

Version 2018.0

*This edition is effective for all trauma patients
presenting for treatment on or after January 1, 2018.*



Acknowledgements

The Ohio State Board of Emergency Medical, Fire and Transportation Services and the EMS Division of the Ohio Department of Public Safety would like to thank the myriad of people – too numerous to list here – who have worked tirelessly to create, expand and transform the Ohio Trauma Registry from its inception and embryonic beginnings in the late 1990s into the powerful research and policymaking tool it is today. This growth and development would not have been possible without the strength of their combined knowledge, wisdom and hard work.

TACR is a component of the Ohio Trauma Registry (OTR) and is maintained by the Ohio Department of Public Safety, 1970 W. Broad St., Columbus, Ohio 43218. For more information about the TACR, OTR and/or the State of Ohio's Trauma System, contact the Ohio Department of Public Safety's EMS Office of Research and Analysis, at (800)233-0785, EMSdata@dps.ohio.gov or visit <http://ems.ohio.gov>.

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TACR INCLUSION/EXCLUSION CRITERIA – ICD-10

TRAUMA PATIENT DEFINITION

In order to ensure consistent data collection across the State of Ohio and to follow the National Trauma Data Standard, a trauma patient is defined as a patient sustaining a traumatic injury and meeting the patient inclusion criteria described below.

PATIENT INCLUSION CRITERIA

To be included in the Trauma Acute Care Registry (TACR),

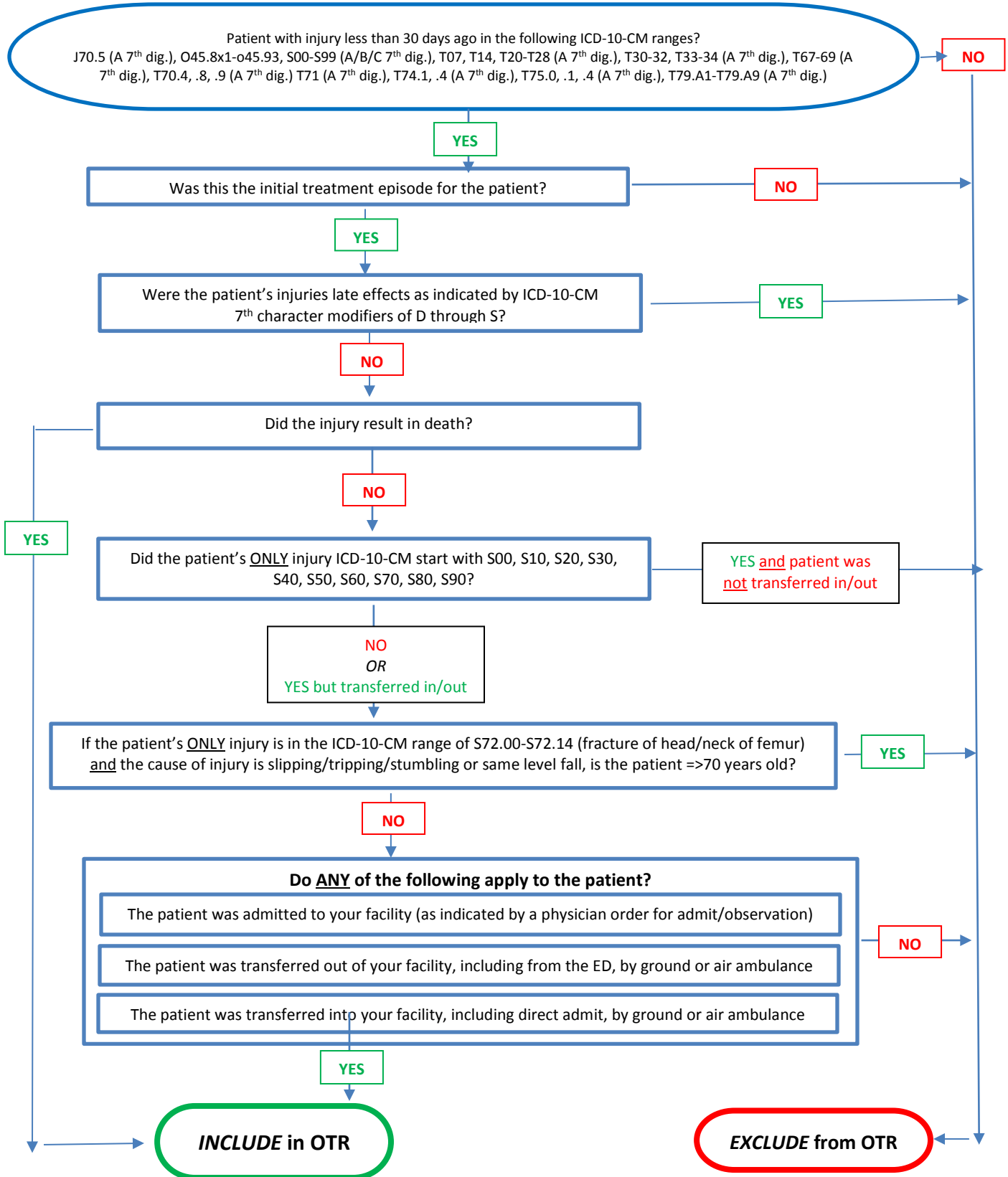
1. The patient must have incurred, no more than 30 days prior to presentation for initial treatment, at least one of the injury diagnostic codes defined in the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM):
 - **J70.5 with character modifier of A ONLY** (Respiratory conditions due to smoke inhalation – initial encounter)
 - **O45.8x1-O45.93** (Other and unspecified premature separation of placenta)
 - **S00-S99 with 7th character modifier of A, B or C ONLY** (Injuries to specific body parts – initial encounter);
 - **T07** (Unspecified multiple injuries);
 - **T14** (Injury of unspecified body region);
 - **T20-T28 with 7th character modifier of A ONLY** (Burns by specified body parts – initial encounter);
 - **T30-T32** (Burn by TBSA percentage);
 - **T33 with character modifier of A ONLY** (Superficial frostbite – initial encounter)
 - **T34 with character modifier of A ONLY** (Frostbite with tissue necrosis – initial encounter)
 - **T67 with character modifier of A ONLY** (Effects of heat and light – initial encounter)
 - **T68 with character modifier of A ONLY** (Hypothermia – initial encounter)
 - **T69 with character modifier of A ONLY** (Other effects of reduced temperature – initial encounter)
 - **T70.4 with character modifier of A ONLY** (Effects of high-pressure fluids – initial encounter)
 - **T70.8 with character modifier of A ONLY** (Other effects of air pressure and water pressure – initial encounter)
 - **T70.9 with character modifier of A ONLY** (Effect of air pressure and water pressure, unspecified – initial encounter)
 - **T71 with character modifier of A ONLY** (Asphyxiation – initial encounter)
 - **T74.1 with character modifier of A ONLY** (Physical abuse, confirmed – initial encounter)
 - **T74.4 with character modifier of A ONLY** (Shaken infant syndrome – initial encounter)
 - **T75.0 with character modifier of A ONLY** (Effects of lightning – initial encounter)
 - **T75.1 with character modifier of A ONLY** (Unspecified effects of drowning and nonfatal submersion – initial encounter)
 - **T75.4 with character modifier of A ONLY** (Electrocution – initial encounter)
 - **T79.A1-T79.A9 with 7th character modifier of A ONLY** (Traumatic compartment syndrome – initial encounter)
2. The patient **MUST ALSO**
 - On initial presentation for treatment of an injury, be admitted to a hospital or hospital observation unit, as defined by a physician order regardless of the length of stay; **AND/OR**
 - Be transferred via EMS transport (including air ambulance) from one hospital (or free standing emergency department) to another hospital regardless of the patient's length of stay or admission status; **AND/OR**
 - Have an outcome of death resulting from the traumatic injury (independent of hospital admission or hospital transfer status).

PATIENT EXCLUSION CRITERIA

Patients with the following isolated ICD-10-CM codes are **EXCLUDED** from the TACR:

- **S72.00-S72.14**, fracture of head/neck of femur ONLY IF age >70 AND it resulted from slipping, tripping, stumbling or a same level fall (W01.0, W18.30, W18.31, W18.39);
- **S00, S10, S20, S30, S40, S50, S60, S70, S80, S90** (Abrasion or Contusion injuries. Patients with abrasion or contusion injuries that were transferred in/out for treatment of injuries or died because of injuries would be included in the registry)
- **7th character modifiers of D through S** (Late effects)

OTR TACR Inclusion/Exclusion Decision Tree – ICD-10



COMMON NULL VALUES

Definition

Common Null Values are terms to be used with OTR TACR Data Elements as described in this document for specifically-defined data fields when an answer cannot be provided.

Field Values

NA= Not Applicable

ND= Not Known/Not Recorded/Not Documented

Additional Information

- Although not written out on the following pages, these Common Null Values are included in the TACR dataset for every allowable data field. To ascertain their allowability by data field, see the "Accepts Null Value" notation on every data field descriptor page.
- *Not Applicable (Field Value NA)*: This null value code applies if, at any time of patient care documentation, the information requested was "Not Applicable" (NA) to the patient, the hospitalization or the patient care event. For example, variables documenting EMS care would be NA if a patient self-transport to the hospital.
- *Not Known/Not Recorded/Not Documented (Field Value ND)*: This null value applies if, at the time of patient care documentation, information was "Not Known" (to the patient, family, healthcare 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/Not Documented 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).
- 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. When data elements associated with the TACR are to be electronically stored in a database or moved from one database to another, the indicated null values should be applied.

References to Other Databases

- Compare with NTDS 2018

HOSPITAL CODE

Definition

Hospital Code is a four-digit (4) hospital code assigned by the Ohio Department of Public Safety.

Field Values

- Relevant value for data element

Common Null Values

- Not Accepted

Additional Information

- Stored as a four digit code (xxxx)

Data Source Hierarchy Guide

- 1 Ohio Department of Public Safety Hospital Code List

UNIQUE ADMISSION NUMBER

Definition

Unique Admission Number is a number assigned to the trauma patient at your facility. A patient encounter number or account number can be used.

Field Values

- Relevant value for data element

Common Null Values

- Not Accepted

Additional Information

- Use an identifiable number specific to your facility, e.g. patient encounter or account number

TRAUMA TRACKING NUMBER

Definition

Trauma Tracking Number is a number automatically generated by the trauma registry system.

Field Values

- Relevant value for data element

Common Null Values

- Not Accepted

PATIENT'S HOME CITY

Definition

Patient's Home City is the patient's city, township, or village of residence.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 Emergency Department (ED) Documentation

References to Other Databases

- NTDS 2018

PATIENT'S HOME STATE

Definition

Patient's Home State is the state, territory, or province (or the District of Columbia) of the patient's residence.

Field Values

- Relevant value for data element (two digit FIPS code)

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

PATIENT'S HOME COUNTY

Definition

Patient's Home County is the patient's county (or parish) of residence.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

PATIENT'S HOME ZIP CODE

Definition

Patient's Home Zip Code is the zip code of the patient's primary residence.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Stored as a 5 digit code (XXXXX).

Data Source Hierarchy Guide

- 1 Billing Sheet/Medical Records Coding Summary Sheet
- 2 ED Admission Form
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

PATIENT'S HOME COUNTRY

Definition

Patient's Home Country is the country where the patient resides.

Field Values

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

Common Null Values

- Accepted

Additional Information

- Values are two character fields representing a country (e.g. U.S.)

Data Source Hierarchy Guide

- 1 Billing Sheet/Medical Records Coding Summary Sheet
- 2 ED Admission Form
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

ALTERNATE HOME RESIDENCE

Definition

Alternate Home Residence is documentation of the residential status of a patient who has no home zip code.

Field Values

- 1 Homeless
- 2 Undocumented Resident
- 3 Migrant Worker

Common Null Values

- Accepted

Additional Information

- Only used 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 Resident* 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

Data Source Hierarchy Guide

- 1 Billing Sheet/Medical Records Coding Summary Sheet
- 2 ED Admission Form
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

DATE OF BIRTH

Definition

Date of Birth is the patient's date of birth at time of injury.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Collected as MMDDYYYY
- If age is known, but the date of birth is not, enter 01/01/YYYY (YYYY appropriate to patient's known age)

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 1.25

AGE

Definition

Age is the patient's age (or best approximation) at the time of injury.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate patient age in hours, days, months or years
- Must also complete variable *Age Units* (see next page)
- Only completed when Date of Birth is "Not Recorded/Not Known" or age is less than 24 hours

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

AGE UNITS

Definition

Age Units are the units used to document the patient's age (years, months, days, hours).

Field Values

- 1 Hours
- 2 Days
- 3 Months
- 4 Years
- 5 Minutes

Common Null Values

- Accepted

Additional Information

- Used to calculate patient age in hours, days, months or years
- Must also complete variable *Age*
- Only completed when Date of Birth is "Not Recorded/Not Known" or age is less than 24 hours

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Triage Form/Trauma Flow Sheet
- 4 EMS Run Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

SEX

Definition

The patient's sex.

Field Values

- 1 Male
- 2 Female

Common Null Values

- Not Accepted

Additional Information

- Patients who have undergone a surgical and/or hormonal sex change should be coded according to what sex they state they are. If they are unable to state their sex, they should be coded according to what sex they appear to be.

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

RACE

Definition

Race is the patient's race.

Field Values

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

Common Null Values

- Accepted

Additional Information

- Patient race should be based upon self-report or identified by a family member
- Based on the 2010 US Census Bureau
- Select all that apply

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 EMS Run Sheet
- 4 Triage Form/Trauma Flow Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

ETHNICITY

Definition

Ethnicity is the patient's ethnicity in terms of Hispanic heritage.

Field Values

- 1 Hispanic or Latino
- 2 Not Hispanic or Latino

Common Null Values

- Accepted

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
- Based on the 2010 US Census Bureau

Data Source Hierarchy Guide

- 1 ED Admission Form
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Triage Form/Trauma Flow Sheet
- 4 EMS Run Sheet
- 5 ED Documentation

References to Other Databases

- NTDS 2018

PRIMARY ICD-10 EXTERNAL CAUSE CODE

Definition

Primary External Cause Code is a designation used to describe the mechanism (or external factor) that caused the injury event.

Field Values

- Relevant ICD-10-CM code value for injury event

Common Null Values

- Not Accepted

Additional Information

- The Primary External Cause Code should describe the main reason a patient is admitted to the hospital
- External codes can be used to auto-generate the trauma type (blunt, penetrating, burn) and intentionality based upon the CDC matrix
- Activity codes should not be reported in this field

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 Billing Sheet/Medical Records Coding Summary Sheet
- 4 ED Documentation

References to Other Databases

- NTDS 2018

ADDITIONAL ICD-10 EXTERNAL CAUSE CODE

Definition

Additional External Cause Code is a designation used to describe, for example, a mass casualty event or other external cause of injury.

Field Values

- Relevant ICD-10-CM code value for injury event

Common Null Values

- Accepted

Additional Information

- External Cause Codes can be used to calculate trauma type (blunt, penetrating, burn) and intentionality based upon the CDC matrix
- The null value "Not Applicable" is used if no additional external cause codes are used
- Activity codes should not be reported in this field
- Multiple Cause Coding Hierarchy: If two or more events cause separate injuries, an external cause code should be assigned for each cause. The first-listed external code will be selected in the following order:
 - External cause codes for child and adult abuse take priority over all other external cause codes
 - External cause codes for terrorism events take priority over all other external cause codes except child and adult abuse.
 - External cause codes for cataclysmic events take priority over all other external cause codes except child and adult abuse, and terrorism.
 - External cause codes for transport accident take priority over all other external cause codes except cataclysmic events, and child and adult abuse, and terrorism.
 - The first listed external cause code should correspond to the cause of the most serious diagnosis due to an assault, accident or self-harm, following the order of hierarchy listed above.

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 Billing Sheet/Medical Records Coding Summary Sheet
- 4 ED Documentation

References to Other Databases

- NTDS 2018

ICD-10 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE

Definition

ICD-10 Place of Occurrence external cause code is a Y92.x code used to describe the place, site or location of the injury event.

Field Values

- Relevant ICD-10-CM code value for injury event

Common Null Values

- Not Accepted

Additional Information

- Only ICD-10-CM codes will be accepted for ICD-10 Place of Occurrence External Cause Code.
- Multiple Cause Coding Hierarchy: If two or more events cause separate injuries, an external cause code should be assigned for each cause. The first-listed external code will be selected in the following order:
 - External cause codes for child and adult abuse take priority over all other external cause codes
 - External cause codes for terrorism events take priority over all other external cause codes except child and adult abuse.
 - External cause codes for cataclysmic events take priority over all other external cause codes except child and adult abuse, and terrorism.
 - External cause codes for transport accident take priority over all other external cause codes except cataclysmic events, and child and adult abuse, and terrorism.
 - The first listed external cause code should correspond to the cause of the most serious diagnosis due to an assault, accident or self-harm, following the order of hierarchy listed above.

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 Billing Sheet/Medical Records Coding Summary Sheet
- 4 ED Documentation

References to Other Databases

- NTDS 2018

WORK-RELATED

Definition

Work-related is whether the injury occurred during paid employment.

Field Values

- 1 Yes
- 2 No

Common Null Values

- Accepted

Additional Information

- If work-related, two additional data fields must be completed, *Patient's Occupational Industry* and *Patient's Occupation*

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

PATIENT'S OCCUPATIONAL INDUSTRY

Definition

Patient's Occupational Industry is the occupational industry associated with the patient's work environment.

Field Values

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

Common Null Values

- Accepted

Additional Information

- Code as *NA* 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 Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 EMS Run Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

PATIENT'S OCCUPATION

Definition

Patient's Occupation is the occupation of the patient.

Field Values

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

Common Null Values

- Accepted

Additional Information

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

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 EMS Run Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INJURY INCIDENT DATE

Definition

Injury Incident Date is the date that the injury occurred.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Estimates of the 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

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INJURY INCIDENT TIME

Definition

Injury Incident Time is the time of day that the injury occurred.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Estimates of time 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

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INCIDENT CITY

Definition

Incident City is the city, township or village in which the injury occurred or to which the EMS unit responded for the patient.

Field Values

- Relevant value for data element (five digit FIPS code)

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INCIDENT STATE

Definition

Incident State is the state, territory or province (or best approximation) in which the patient was injured or to which the EMS unit responded for the patient.

Field Values

- Relevant value for data element (two digit numeric FIPS code)

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INCIDENT COUNTY

Definition

Incident County is the county or parish (or best approximation) where the patient was found or to which the EMS unit responded to the patient.

Field Values

- Relevant value for data element (three digit FIPS code)

Common Null Values

- Accepted

Additional Information

- Used to calculate FIPS code

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INCIDENT LOCATION ZIP CODE

Definition

Incident Location Zip Code is the zip code of the location where the patient was injured.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Stored as a five digit code (XXXXX)
- May require adherence to HIPAA regulations

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation

References to Other Databases

- NTDS 2018

INCIDENT COUNTRY

Definition

Incident Country is the country (or best approximation) in which the patient was injured or to which the EMS unit responded to the patient.

Field Values

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

Common Null Values

- Accepted

Additional Information

- Values are two character fields representing a country (e.g. US)

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation
- 4 Medical Records

References to Other Databases

- NTDS 2018

PROTECTIVE DEVICES

Definition

Protective Devices is the safety equipment in use or worn by the patient at the time of the injury.

Field Values

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

Common Null Values

- Accepted
- Field cannot be “Not Applicable”

Additional Information

- Check all that apply
- If “Child Restraint” is present, complete variable *Child Specific Restraint*
- If “Airbag” is present, complete variable *Airbag Deployment*
- Evidence of the use of safety equipment may be reported or observed
- “Lap belt” should be used to include those patients that are restrained, but not further specified
- If chart indicates *three- point restraint*, choose field values #2 and 10

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation
- 4 Medical Records

References to Other Databases

- NTDS 2018

CHILD SPECIFIC RESTRAINT

Definition

Child Specific Restraint indicates protective child restraint devices used by the pediatric patient at the time of injury.

Field Values

- 1 Child Car Seat
- 2 Infant Car Seat
- 3 Child Booster Seat

Common Null Values

- Accepted

Additional Information

- Evidence of the use of child restraint may be reported or observed
- Only completed when *Protective Devices* include "Child Restraint"

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation
- 4 Medical Records

References to Other Databases

- NTDS 2018

AIRBAG DEPLOYMENT

Definition

Airbag Deployment indicates whether an airbag deployed during a motor vehicle crash.

Field Values

- 1 Airbag Not Deployed
- 2 Airbag Deployed Front
- 3 Airbag Deployed Side
- 4 Airbag Deployed Other (knee, airbelt, curtain, etc.)

Common Null Values

- Accepted

Additional Information

- ***Airbag Deployed Front* should be used for patients with airbag deployment documented in the medical record when the site of the airbag is not further specified.**
- Check all that apply
- Evidence of the use of airbag deployment may be reported or observed
- Only completed when *Protective Devices* include "8. Airbag Present"
- The null value "not Applicable" is used if no "airbag Present" is reported under Protective Devices

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Triage Form/Trauma Flow Sheet
- 3 ED Documentation
- 4 Medical Records

References to Other Databases

- NTDS 2018

TRANSPORT MODE FOR ARRIVAL AT YOUR HOSPITAL

Definition

Transport Mode for Arrival at Your Hospital is the manner of transport delivering the patient to your hospital.

Field Values

- 1 Ground Ambulance
- 2 Helicopter Ambulance
- 3 Fixed-wing Ambulance
- 4 Private or Public Vehicle or Walk-in
- 5 Police Transport
- 6 Other Transport Mode

Common Null Values

- Accepted

Additional Information

- Example of "Other Transport Mode" include boat
- Examples of "Public or Private or Walk-in" include: bus or bicycle
- If a patient was a visitor/in-house patient at your facility and experienced an event to require admission to the ED select patient's mode of arrival as "4/Private or Public Vehicle or Walk-In".

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 ED Record

References to Other Databases

- NTDS 2018

TRANSPORT AGENCY

Definition

Transport Agency is the EMS agency or air ambulance that delivered the patient to your hospital.

Field Values

- Relevant value for data element (ODPS-assigned EMS Agency ID)

Common Null Values

- Accepted

Additional Information

- "Non-applicable" (NA) is used to indicate that a patient arrived via "Private or Public Vehicle or Walk-in," "Police Transport," or "Other Transport Mode"

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 ED Record

References to Other Databases

- Not an NTDS Field

OTHER TRANSPORT MODES

Definition

Other Transport Modes documents all other types of transport used during patient care prior to the patient arriving at your hospital, except the transport mode delivering the patient to your hospital. An example is an ambulance transporting the patient to the helicopter landing zone.

Field Values

- 1 Ground Ambulance
- 2 Helicopter Ambulance
- 3 Fixed-wing Ambulance
- 4 Private or Public Vehicle or Walk-in
- 5 Police Transport
- 6 Other Transport Mode

Common Null Values

- Accepted

Additional Information

- For patients with an unspecified mode of transport, select 6, *Other*
- “Non-applicable” (NA) is used to indicate that a patient had a single mode of transport and therefore this field does not apply to the patient

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 ED Record

References to Other Databases

- NTDS 2018

EMS DISPATCH DATE TO SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Total EMS Time* (which is the elapsed time from EMS dispatch to hospital arrival)
- 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

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

EMS DISPATCH TIME TO SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Total EMS Time* (which is the elapsed time from EMS dispatch to hospital arrival)
- The null value "Not Applicable" is used for patients who were not transported by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

EMS UNIT ARRIVAL DATE AT SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated fields, *Total EMS Response Time* (which is the elapsed time from EMS dispatch to scene arrival) & *Total EMS Scene Time* (which is the elapsed time from EMS scene arrival to scene departure)
- The null value "Not Applicable" is used for patients who were not transported by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

EMS UNIT ARRIVAL TIME FROM SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated fields, *Total EMS Response Time* (which is the elapsed time from EMS dispatch to scene arrival) & *Total EMS Scene Time* (which is the elapsed time from EMS scene arrival to scene departure)
- The null value "Not Applicable" is used for patients who were not transported by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

EMS UNIT DEPARTURE DATE FROM SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Total EMS Scene Time* (which is the elapsed time from EMS scene arrival to scene departure)
- The null value "Not Applicable" is used for patients who were not transported by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

EMS UNIT DEPARTURE TIME FROM SCENE OR TRANSFERRING FACILITY

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

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field *Total EMS Scene Time* (which is the elapsed time from EMS scene arrival to scene departure)
- The null value "Not Applicable" is used for patients who were not transported by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD SYSTOLIC BLOOD PRESSURE

Definition

Initial Field *Systolic Blood Pressure* is the first recorded systolic blood pressure measured at the scene of injury.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Revised Trauma Score---EMS* (adult & pediatric)
- If patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD PULSE RATE

Definition

Initial Field Pulse Rate is the 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

Common Null Values

- Accepted

Additional Information

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

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD RESPIRATORY RATE

Definition

Initial Field Respiratory Rate is the first recorded respiratory rate measured at the scene of injury (expressed as a number per minute).

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Revised Trauma Score---EMS* (adult & pediatric)
- If patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD OXYGEN SATURATION

Definition

Initial Field Oxygen Saturation is the first recorded oxygen saturation measured at the scene of injury (expressed as a percentage).

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

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

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD GCS - EYE

Definition

Initial Field GCS Eye Opening is the first recorded Glasgow Coma Score eye assessment done at the scene of injury.

Field Values

- 1 No eye movement when assessed
- 2 Opens eyes in response to painful stimulation
- 3 Opens eyes in response to verbal stimulation
- 4 Opens eyes spontaneously

Common Null Values

- Accepted

Additional Information

- Used to calculate *Overall GCS – EMS Score*
- If patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*
- 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's pupils are PERRL," an Eye GCS of 4 may be recorded, IF there is no other contradicting documentation.
- The null value "Not Applicable" is used for patients who arrive by 4. Private/Public Vehicle/Walk-in

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD GCS - VERBAL

Definition

Initial Field GCS Verbal Response is the first recorded Glasgow Coma Score verbal assessment done at the scene of injury.

Field Values

- Pediatric(<= 2 years of age)
 - 1 No vocal response
 - 2 Inconsolable, agitated
 - 3 Inconsistently consolable, moaning
 - 4 Cries but is consolable, inappropriate interactions
 - 5 Smiles, oriented to sounds, follows objects, interacts
- Adult
 - 1 No verbal response
 - 2 Incomprehensible sounds
 - 3 Inappropriate words
 - 4 Confused
 - 5 Oriented

Common Null Values

- Accepted

Additional Information

- Used to calculate *Overall GCS – EMS Score*
- If patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*
- 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 is oriented to person place and time," a Verbal GCS of 5 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD GCS - MOTOR

Definition

Initial Field GCS Motor Response is the first recorded Glasgow Coma Score motor assessment done at the scene of injury.

Field Values

- Pediatric (<= 2 years of age)
 - 1 No motor response
 - 2 Extension to pain
 - 3 Flexion to pain
 - 4 Withdrawal from pain
 - 5 Localizing pain
 - 6 Appropriate response to stimulation
- Adult
 - 1 No motor response
 - 2 Extension to pain
 - 3 Flexion to pain
 - 4 Withdrawal from pain
 - 5 Localizing pain
 - 6 Obeys commands

Common Null Values

- Accepted

Additional Information

- Used to calculate Overall GCS – EMS Score
- If patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*
- 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 Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD GCS - TOTAL

Definition

Initial Field Scene GCS Total Score is the first recorded total Glasgow Coma Score done at the scene of injury.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate an additional calculated field, *Revised Trauma Score---EMS* (adult & pediatric)
- If the patient is transferred to your facility with no EMS run sheet from the scene of injury, record as *Not Known/Not Recorded/Not Documented*
- If a patient does not have a numeric GCS recorded, but there is documentation related to their level of consciousness such as "AAOx3," "awake alert and oriented," or "patient with normal mental status," interpret this as GCS of 15 IF there is no other contradicting documentation.

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

INITIAL FIELD GCS QUALIFIER

Definition

Initial Field GCS Qualifier documents circumstances related to the patient when or near the time that the *INITIAL Field Scene GCS Total Score* was obtained.

Field Values

- 1 Patient is chemically sedated or paralyzed
- 2 Obstruction to the patient's eye(s) prevents accurate eye assessment
- 3 Patient is intubated
- 4 GCS is valid meaning that the patient is not sedated, not intubated and without eye obstruction

Common Null Values

- Accepted

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.)
- Select *NA* if the patient was not transported to your hospital by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- Not an NTDS Field

SCENE INTERVENTIONS

Definition

Scene Interventions indicates whether a critical procedure was performed by EMS at the scene or en route to your hospital, and if so, the procedure that was performed.

Field Values

- 1 CPR
- 2 Needle Thoracostomy or Chest Tube
- 3 Nasal Endotracheal Tube
- 4 Oral Endotracheal Tube
- 5 Surgical Airway (i.e. surgical, needle or percutaneous cricothyrotomy, tracheostomy)
- 6 Other Non-Surgical Airway (Supraglottic Airway (e.g., Laryngeal Mask Airway, King, Combitube))

Common Null Values

- Accepted

Additional Information

- Select *NA* if the patient was not treated at the scene by EMS

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- Not an NTDS Field

PREHOSPITAL CARDIAC ARREST

Definition

Prehospital Cardiac Arrest is indication of whether patient experienced cardiac arrest prior to ED/Hospital arrival.

Field Values

- 1 Yes
- 2 No

Common Null Values

- Accepted

Additional Information

- A patient who experienced a sudden cessation of cardiac activity. The patient was unresponsive with no normal breathing and no signs of circulation.
- The event must have occurred outside of the reporting hospital, prior to admission at the center in which the registry is maintained. Pre-hospital cardiac arrest could occur at a transferring institution.
- Any component of basic and/or advanced cardiac life support must have been initiated by a health care provider.

Data Source Hierarchy Guide

- 1 EMS Run Sheet
- 2 Nursing Notes/Flow Sheet
- 3 History & Physical
- 4 Transfer Notes

References to Other Databases

- NTDS 2018

INTER-FACILITY TRANSFER

Definition

Inter-facility Transfer is whether the patient was transferred to your facility from another hospital.

Field Values

- 1 Yes
- 2 No

Common Null Values

- Accepted

Additional Information

- A patient transferred from a private doctor's office, stand-alone ambulatory surgery center, and urgent care clinic or delivered to your hospital by a non-EMS transport is NOT considered an inter-facility transfer.
- Outlying facilities (i.e. hospitals and free-standing emergency departments) that provide emergency care services to assess and/or stabilize a patient are considered to be acute care facilities.

Data Source Hierarchy Guide

- 1 EMS Run Sheet

References to Other Databases

- NTDS 2018

TRANSFERRING HOSPITAL CODE

Definition

Transferring Hospital Code documents the Ohio Department of Public Safety (ODPS) assigned-number for the acute care facility which transferred a trauma patient to your hospital.

Field Values

- Four-digit hospital code assigned by the Ohio Department of Public Safety.

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 ED Record
- 2 History & Physical Documentation

References to Other Databases

- Not an NTDS Field

ED/HOSPITAL ARRIVAL DATE

Definition

ED/Hospital Arrival Date is the date that the patient arrived at your ED/hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- If the patient was brought to the ED, enter the date patient arrived at ED
- If the patient was directly admitted to the hospital, enter date patient was admitted to the hospital
- 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 Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Billing Sheet/Medical Records Coding Summary Sheet
- 4 Hospital Discharge Summary

References to Other Databases

- NTDS 2018

ED/HOSPITAL ARRIVAL TIME

Definition

ED/Hospital Arrival Time is the time of day that the patient arrived to your ED/hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- If the patient was brought to your hospital ED, enter the time patient arrived at the ED.
- If the patient was a directly admit to your hospital and bypassed the ED, enter that time that the patient was admitted to your hospital.
- 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 Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Billing Sheet/Medical Records Coding Summary Sheet
- 4 Hospital Discharge Summary

References to Other Databases

- NTDS 2018

TRAUMA ACTIVATION LEVEL

Definition

Trauma Activation Level is the highest level of trauma activation called for the patient when at your hospital.

Field Values

- 1 Highest Level of Activation
- 2 Other Level of Activation
- 3 No Trauma Activation

Common Null Values

- Accepted

Additional Information

- Select 3 if your facility does not have a Trauma Service

Data Source Hierarchy Guide

- 1 Trauma Flow Sheet
- 2 ED Record

References to Other Databases

- Not an NTDS Field

INITIAL ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

Definition

ED/Hospital Initial Systolic Blood Pressure is the patient's first recorded systolic blood pressure within 30 minutes or less of ED/hospital arrival.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Use to auto-generated an additional calculated field, *Revised Trauma Score---ED* (adult & pediatric)
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL PULSE RATE

Definition

ED/Hospital Initial Pulse Rate is the patient's first recorded pulse rate within 30 minutes or less of ED/hospital arrival (palpated or auscultated), expressed as a number per minute.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL RESPIRATORY RATE

Definition

ED/Hospital Initial Respiratory Rate is the patient's first recorded respiratory rate within 30 minutes or less of ED/hospital arrival.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- If available, complete addition field *Initial ED/Hospital Respiratory Assistance*
- Used to auto-generate an additional calculated field *Revised Trauma Score---ED* (adult & pediatric)
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL RESPIRATORY ASSISTANCE

Definition

ED/Hospital Initial Respiratory Assistance documents whether the patient was receiving respiratory assistance within 30 minutes or less of ED/hospital arrival.

Field Values

- 1 Unassisted Respiratory Rate
- 2 Assisted Respiratory Rate

Common Null Values

- Accepted

Additional Information

- Only completed if a value is provided for *ED/Hospital Initial Respiratory Rate*
- Respiratory Assistance is defined as mechanical and/or external support of respiration
- Please note that first recorded/ hospital vitals do not need to be from the same assessment
- The null value "Not Applicable" is used if "Initial ED/Hospital Respiratory Rate" is "Not Known/Not Recorded"

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL OXYGEN SATURATION

Definition

ED/Hospital Initial Oxygen Saturation is the patient's first recorded oxygen saturation within 30 minutes or less of ED/hospital arrival, expressed as a percentage.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- If available, complete additional field *ED/Hospital Initial Supplemental Oxygen*
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL SUPPLEMENTAL OXYGEN

Definition

ED/Hospital Supplemental Oxygen is whether supplemental oxygen was provided to the patient during the assessment of *ED/Hospital Initial Oxygen Saturation Level* within 30 minutes or less of ED/hospital arrival.

Field Values

- 1 No Supplemental Oxygen
- 2 Supplemental Oxygen

Common Null Values

- Accepted

Additional Information

- Only completed if a value is provided for *ED/Hospital Initial Oxygen Saturation*
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL TEMPERATURE

Definition

ED/Hospital Initial Temperature is the patient's first recorded temperature within 30 minutes or less of ED/hospital arrival, documented in degrees Fahrenheit.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL GCS - EYE

Definition

ED/Hospital Initial GCS Eye Opening is the patient's first recorded Glasgow Coma Score (GCS) eye assessment documented within 30 minutes or less of ED/hospital arrival in your ED/hospital.

Field Values

- 1 No eye movement when assessed
- 2 Opens eyes in response to painful stimulation
- 3 Opens eyes in response to verbal stimulation
- 4 Opens eyes spontaneously

Common Null Values

- Accepted

Additional Information

- Necessary to calculate *Overall GCS ED Score*
- 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's pupils are PERRL," an Eye GCS of 4 may be recorded, IF there is no other contradicting documentation.
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL GCS - VERBAL

Definition

ED/Hospital Initial GCS Verbal Response is the patient's first recorded Glasgow Coma Score verbal assessment documented within 30 minutes or less of ED/hospital arrival.

Field Values

- Pediatric(<= 2 years of age)
 - 1 No vocal response
 - 2 Inconsolable, agitated
 - 3 Inconsistently consolable, moaning
 - 4 Cries but is consolable, inappropriate interactions
 - 5 Smiles, oriented to sounds, follows objects, interacts
- Adult
 - 1 No verbal response
 - 2 Incomprehensible sounds
 - 3 Inappropriate words
 - 4 Confused
 - 5 Oriented

Common Null Values

- Accepted

Additional Information

- Necessary to calculate *Overall GCS ED Score*
- If patient is intubated then the GCS Verbal score is equal to 1
- 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 is oriented to person place and time," a Verbal GCS of 5 may be recorded, IF there is no other contradicting documentation.
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL GCS - MOTOR

Definition

ED/Hospital Initial GCS Motor Response is the patient's first recorded Glasgow Coma Score motor assessment documented within 30 minutes or less of ED/hospital arrival.

Field Values

- Pediatric(<= 2 years of age)
 - 1 No motor response
 - 2 Extension to pain
 - 3 Flexion to pain
 - 4 Withdrawal from pain
 - 5 Localizing pain
 - 6 Appropriate response to stimulation
- Adult
 - 1 No motor response
 - 2 Extension to pain
 - 3 Flexion to pain
 - 4 Withdrawal from pain
 - 5 Localizing pain
 - 6 Obeys commands

Common Null Values

- Accepted

Additional Information

- Necessary to calculate *Overall GCS ED Score*
- 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.
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL GCS - TOTAL

Definition

ED/Hospital Initial GCS Total Score is the patient's first recorded Glasgow Coma Score documented within 30 minutes or less of ED/hospital arrival in your ED/hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Utilize **only** if total score is available without individual component scores
- Used to auto-generate an additional calculated field, *Revised Trauma Score---ED (adult & pediatric)*
- If a patient does not have a numeric GCS recorded, but there is documentation related to their level of consciousness such as "AAOx3," "awake alert and oriented," or "patient with normal mental status," interpret this as GCS of 15 IF there is no other contradicting documentation.
- Please note that first recorded/ hospital vitals do not need to be from the same assessment

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Record (if a direct admission)

References to Other Databases

- NTDS 2018

INITIAL ED/HOSPITAL GCS ASSESSMENT QUALIFIERS

Definition

ED/Hospital Initial GCS Qualifiers are factors that potentially affected the patient's first Glasgow Coma Score assessment within 30 minutes or less of ED/hospital arrival.

Field Values

- 1 Patient Chemically Sedated
- 2 Obstruction to the Patient's Eye
- 3 Patient Intubated
- 4 Valid GCS: Patient not sedated, not intubated and without eye obstruction

Common Null Values

- Accepted

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.)
- If an intubated patient has recently received an agent that results in neuromuscular blockade such that a motor or eye response is not possible, then the patient should be considered to have an exam that is not reflective of their neurologic status and the chemical sedation modifier should be selected.
- Neuromuscular blockade is typically induced following the administration of agent like succinylcholine, mivacurium, rocuronium, (cis) atracurium, vecuronium, or pancuronium. While these are the most common agents, please review what might be typically used in your center so it can be identified in the medical record.
- Each of these agents has a slightly different duration of action, so their effect on the GCS depends on when they were given. For example, succinylcholine's effects last for only 5-10 minutes.

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Unit Vitals (if a direct admission)

References to Other Databases

- NTDS 2018

HEIGHT

Definition

Height is the patient's height in centimeters.

Field Values

- Height in centimeters

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Admission Record

References to Other Databases

- NTDS 2018

WEIGHT

Definition

Weight is the patient's weight in kilograms.

Field Values

- Weight in kilograms

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 ED Record
- 3 Nursing Admission Record

References to Other Databases

- NTDS 2018

ED DISCHARGE ORDER WRITTEN DATE

Definition

ED Discharge Order Written Date is the date that the order was written for the patient to be discharged from your ED.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate additional calculated field, *Total ED Time* (elapsed time from ED admit to ED discharge)
- If the patient is directly admitted to the hospital, code as *NA*

Data Source Hierarchy Guide

- 1 Hospital Discharge Summary
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physicians' Progress Notes

References to Other Databases

- Not an NTDS Field

ED DISCHARGE ORDER WRITTEN TIME

Definition

ED Discharge Order Written Time is the time that the order was written for the patient to be discharged from your ED.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate additional calculated field, *Total ED Time* (elapsed time from ED admit to ED discharge)
- If the patient is directly admitted to the hospital, code as *NA*

Data Source Hierarchy Guide

- 1 Hospital Discharge Summary
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physicians' Progress Notes

References to Other Databases

- Not an NTDS Field

ED DISCHARGE DATE

Definition

ED Discharge Date is the date that the patient was discharged from your ED.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate additional calculated field, *Total ED Time* (which is the elapsed time from ED arrival to ED discharge)
- If the patient is directly admitted to the hospital, code as *NA*

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physicians' Progress Notes

References to Other Databases

- NTDS 2018

ED DISCHARGE TIME

Definition

ED Discharge Time is the time that the patient was discharged from your ED.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to auto-generate additional calculated field, *Total ED Time* (which is the elapsed time from ED arrival to ED discharge)
- If the patient is directly admitted to the hospital, code as *NA*

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physicians' Progress Notes

References to Other Databases

- NTDS 2018

ED DISCHARGE DISPOSITION

Definition

ED Discharge Disposition is a general location of where the patient goes at the time of discharge from your ED.

Field Values

- | | |
|---|------------------------------------|
| 1 Floor bed (general admission, non-specialty unit bed) | 7 Operating Room |
| 2 Observation unit | 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 Deceased/Expired | 11 Transferred to another hospital |
| 6 Other (jail, institutional care, mental health, etc.) | |

Common Null Values

- Accepted

Additional Information

- If the patient is directly admitted to the hospital, code as *NA*
- If ED Discharge Disposition is 4, 5, 6, 9, 10, 11 the Hospital Discharge date, Time, Disposition and Inpatient Transfer to Hospital should be "Not Applicable"

Data Source Hierarchy Guide

- 1 Hospital Discharge Summary
- 2 Nursing Progress Notes
- 3 Social Worker Notes

References to Other Databases

- NTDS 2018

ED TRANSFER TO HOSPITAL

Definition

ED Transfer to Hospital is a subsequent hospital destination of the patient upon discharge from your ED.

Field Values

- Four-digit hospital code assigned by the Ohio Department of Public Safety.

Common Null Values

- Accepted

Additional Information

- If the patient is directly admitted to the hospital, code as *NA*
- If ED Discharge Disposition is 4, 5, 6, 9, 10, 11 the Hospital Discharge date, Time, Disposition and Inpatient Transfer to Hospital should be "Not Applicable"

Data Source Hierarchy Guide

- 1 ED Record
- 2 History & Physical Documentation

References to Other Databases

- Not an NTDS Field

SIGNS OF LIFE

Definition

Signs of Life are whether the patient arrived for treatment in the ED/ Hospital with signs of life.

Field Values

- 1 Arrived with no signs of life
- 2 Arrived with signs of life

Common Null Values

- Accepted

Additional Information

- A patient with no signs of life is defined as having none of the following: organized EKG activity, pupillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress.

Data Source Hierarchy Guide

- 1 Triage Form/Trauma Flow Sheet
- 2 Physician's Progress Notes
- 3 ED Documentation

References to Other Databases

- NTDS 2018

ALCOHOL SCREEN

Definition

Alcohol Screen is a blood alcohol concentration (BAC) test was performed on the patient within 24 hours after first hospital encounter.

Field Values

- 1 Yes
- 2 No

Common Null Values

- Not Accepted

Additional Information

- Alcohol screen may be administered at any facility, unit or setting treating this patient event

Data Source Hierarchy Guide

- 1 Lab Results
- 2 ED Physician Notes
- 3 Transferring Facility Records

References to Other Databases

- NTDS 2018

ALCOHOL SCREEN RESULTS

Definition

Alcohol Screen Results is the first recorded blood alcohol concentration (BAC) results within 24 hours after first hospital encounter.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Collect as X.XX standard lab value (e.g. 0.08)
- Record BAC results within 24 hours after first hospital encounter at either your facility or the transferring facility
- The null value "Not Applicable" is used for those patients who were not tested

Data Source Hierarchy Guide

- 1 Lab Results
- 2 ED Physician Notes
- 3 Transferring Facility Records

References to Other Databases

- NTDS 2018

DRUG SCREEN

Definition

Drug Screen is the first recorded positive drug screen within 24 hours after first hospital encounter (select all that apply).

Field Values

- | | |
|---------------------------|------------------------------------|
| 1. AMP (Amphetamine) | 9. OXY (Oxycodone) |
| 2. BAR (Barbiturate) | 10. PCP (Phencyclidine) |
| 3. BZO (Benzodiazepines) | 11. TCA (Tricyclic Antidepressant) |
| 4. COC (Cocaine) | 12. THC (Cannabinoid) |
| 5. mAMP (Methamphetamine) | 13. Other |
| 6. MDMA (Ecstasy) | 14. None |
| 7. MTD (Methadone) | 15. Not Tested |
| 8. OPI (Opioid) | |

Common Null Values

- Not Accepted

Additional Information

- Record positive drug screen results within 24 hours after first hospital encounter, at either your facility or transferring facility
- "None" is reported for patients whose only positive results are due to drugs administered at any facility (or setting) treating this patient event, or for patients who were tested and had no positive results
- If multiple drugs are detected, only report drugs that were not administered at any facility (or setting) treating this patient event

Data Source Hierarchy Guide

- 1 Lab Results
- 2 ED Physician Notes
- 3 Referring Facility Records

References to Other Databases

- NTDS 2018

ICD-10 HOSPITAL PROCEDURES

Definition

Hospital Procedures are all operative and selected non-operative procedures conducted during hospital stay. Operative and selected non-operative 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 the OTR.

Field Values

- Major and minor procedure (ICD-10-CM) inpatient codes
- The maximum number of procedures that may be reported for a patient is 200

Common Null Values

- Accepted

Additional Information

- The null value "Not Applicable" is used if the patient did not have procedures
- Include only procedures performed at your institution
- Capture all procedure performed in the operating room
- Capture all procures in the ED, ICU, ward, or radiology department that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or their complications
- Procedures with an asterisk have the potential to be performed multiple times during one episode event even if there is more than one
- Note that the hospital may capture additional procedures

Data Source Hierarchy Guide

- 1 Operative Reports
- 2 Procedure Notes
- 3 ED and ICU Records
- 4 Trauma Flow Sheet
- 5 Nursing Notes
- 6 Radiology Reports
- 7 Anesthesia Record
- 8 Billing Sheet/Medical Records Coding Summary Sheet
- 9 Hospital Discharge Summary

References to Other Databases

- NTDS 2018

PROCEDURE LIST FOR *HOSPITAL PROCEDURES* DATA FIELD

DIAGNOSTIC & THERAPEUTIC IMAGING

Computed tomographic studies* (Head, Chest, Abdomen, Pelvis)
Diagnostic ultrasound (includes FAST)
Doppler ultrasound of extremities*
Angiography
Angioembolization
REBOA (ICD10 o4L03DZ)
Inferior vena cava (IVC) filter

CARDIOVASCULAR

Open cardiac massage
Cardiopulmonary Resuscitation (CPR)

CENTRAL NERVOUS SYSTEM

Insertion of ICP monitor
Ventriculostomy
Cerebral oxygen monitoring

GASTROINTESTINAL

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

GENITOURINARY

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

MUSCULOSKELETAL

Soft tissue/bony debridement*
Closed reduction fractures
Skeletal (and halo) traction*
Fasciotomy

RESPIRATORY

Insertion of endotracheal tube* (Exclude intubations performed in the OR)
Continuous invasive mechanical ventilation
Chest tube*
Bronchoscopy
Tracheostomy

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 *

***May be performed multiple times during hospitalization**

PROCEDURE EPISODE

Definition

Procedure Episode documents the frequency of operative visits. Each trip to the operating room should be identified in sequential order (regardless of number of procedures completed at that time).

Field Values

- 1 First Operative Episode
- 2 Second Operative Episode
- 3 Third Operative Episode
- 4 Fourth Operative Episode
- 5 Fifth Operative Episode
- 6 Sixth Operative Episode
- 7 Seventh Operative Episode
- 8 Eighth Operative Episode
- 9 Ninth Operative Episode
- 10 Tenth or More Operative Episode

Common Null Values

- Accepted

Additional Information

- Include only those operative procedures performed at your hospital
- This field is linked to the *Hospital Procedures* Field
- Leave field blank if procedure was not performed in the Operating Room
- All of the procedures done in the first OR visit would be Episode 1, all in visit 2 would be Episode 2, and so forth.

Data Source Hierarchy Guide

- 1 Operative Reports

HOSPITAL PROCEDURE START DATE

Definition

The date operative and selected non-operative procedures were performed.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- This field is linked to the *Hospital Procedures* Field

Data Source Hierarchy Guide

- 1 Operative Reports
- 2 Anesthesia Record
- 3 OR Nurses' Notes
- 4 Emergency Department Record

References to Other Databases

- NTDS 2018

HOSPITAL PROCEDURE START TIME

Definition

The time operative and selected non-operative procedures were performed.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Procedure start time is defined as the time that the incision was made or that the procedure started
- If distinct procedures with the same procedure code are performed, their start time must be different.
- This field is linked to the *Hospital Procedures* Field

Data Source Hierarchy Guide

- 1 Operative Reports
- 2 Anesthesia Record
- 3 OR Nurses' Notes
- 4 Emergency Department Record

References to Other Databases

- NTDS 2018

CO-MORBID CONDITIONS

Definition

Co-morbid Conditions are pre-existing health factors present in the patient prior to arrival at your ED/hospital.

Field Values

0	No Known Co-morbid Conditions	23	Chronic Obstructive Pulmonary Disease (COPD)
1	Other Co-morbid Conditions Not Listed Here	24	Steroid Use
2	Alcoholism	25	Cirrhosis
4	Bleeding Disorder	26	Dementia
5	Currently receiving Chemotherapy for Cancer	30	Attention deficit disorder/attention deficit hyperactivity disorder (ADD/ADHD)
6	Congenital Anomalies	31	Anticoagulant Therapy
7	Congestive Heart Failure	32	Angina Pectoris
8	Current Smoker	33	Mental/ Personality Disorder
9	Chronic Renal Failure	34	Myocardial Infarction (MI)
10	Cerebrovascular accident (CVA)	35	Peripheral Arterial Disease (PAD)
11	Diabetes Mellitus	36	Substance Abuse Disorder
12	Disseminated Cancer	50	Osteoporosis
13	Advanced Directive Limiting Care	51	Hearing Impaired
15	Functionally Dependent Health Status	52	Vision Impairment
19	Hypertension	53	Language Barrier
21	Prematurity		

Common Null Values

- Accepted

Additional Information

- Field Value #0, *No Known Co-morbid Conditions* is used for patients with no known co-morbid conditions as coded by the hospitals or defined within the NTDS Data Dictionary.
- Check all that apply

Data Source Hierarchy Guide

- 1 History and Physical
- 2 Discharge Sheet
- 3 Billing Sheet

References to Other Databases

- NTDS 2018

DNR STATUS

Definition

DNR Status documents the presence of a physician's order to withhold select resuscitative efforts from the patient, and whether the order was issued prior to or during the patient's stay at your ED/hospital.

Field Values

- 0 Not a DNR patient (patient is to receive all resuscitative efforts if needed)
- 1 DNR status ordered prior to patient's arrival at your hospital
- 2 DNR status ordered after patient's arrival to your hospital

Common Null Values

- Not Accepted

Additional Information

- This field is completed for each patient
- DNR status is typically ordered for a patient who does not wish to be resuscitated in the event of a cardiac arrest (no palpable pulse) or respiratory arrest (no spontaneous respirations or the presence of labored breathing) near the end of life.
- A DNR status includes both *DNR-CC* (comfort care) and *DNR-CCA* (comfort care arrest) orders.
- DNR may also be referred to as Allow Natural Death (AND)
- Until DNR status is documented, the patient is considered to be "not a DNR patient"

Data Source Hierarchy Guide

- 1 Do Not Resuscitate Document
- 2 History and Physical
- 3 Discharge Sheet
- 4 Billing Sheet

References to Other Databases

- Not an NTDS Field

ICD-10 INJURY DIAGNOSES

Definition

Injury Diagnoses are the patient's diagnoses for all injuries identified at your ED/hospital for this injury event. Diagnoses must be confirmed by a physician at your facility.

Field Values

- Injury diagnoses are defined by ICD-10-CM codes; refer to inclusion criteria

Common Null Values

- Not Accepted

Additional Information

- Can be utilized to generate Abbreviated Injury Score and Injury Severity Score
- The maximum number of diagnoses that may be reported for an individual patient is 50

Data Source Hierarchy Guide

- 1 Autopsy Report
- 2 Operative Report
- 3 Discharge Summary
- 4 Trauma Flow Sheet
- 5 Radiology Results
- 6 Billing Sheet/Medical Records Coding Summary Sheet
- 7 ED and ICU Records

References to Other Databases

- NTDS 2018

AIS PRE-DOT CODE

Definition

AIS Pre-dot Code is a component of the Abbreviated Injury Scale (AIS) code that reflects the patient's injuries diagnosed at your ED/hospital.

Field Values

- The pre-dot code is the 6 digits preceding the decimal point in an associated AIS code

Common Null Values

- Accepted

Additional Information

- Can be utilized to generate Abbreviated Injury Score and Injury Severity Score

Data Source Hierarchy Guide

- 1 AIS Coding Manual

References to Other Databases

- NTDS 2018

AIS SEVERITY

Definition

AIS Severity is the Abbreviated Injury Scale (AIS) severity codes that reflect the patient's injuries diagnosed at your ED/hospital.

Field Values

- 1 Minor Injury
- 2 Moderate Injury
- 3 Serious Injury
- 4 Severe Injury
- 5 Critical Injury
- 6 Maximum Injury, Virtually Non-survivable
- 9 Not Possible to Assign an AIS

Common Null Values

- Accepted

Additional Information

- Field value #9, *Not Possible to Assign an AIS*, is chosen if the severity of an injury is not known

Data Source Hierarchy Guide

- 1 AIS Coding Manual

References to Other Databases

- NTDS 2018

AIS VERSION

Definition

AIS version is the software version used to calculate Abbreviated Injury Scale (AIS) severity codes for the patient's current injury event.

Field Values

- 1 AIS 05, Updated 08

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 AIS Coding Manual

References to Other Databases

- NTDS 2018

INJURY SEVERITY SCORE

Definition

Injury Severity Score (ISS) is a nationally-accepted scoring system that reflects the patient's injuries for this injury event.

Field Values

- Relevant ISS value for the constellation of injuries

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 AIS Coding Manual

References to Other Databases

- Not an NTDS Field

TOTAL ICU LENGTH OF STAY

Definition

Total ICU Length of Stay documents the total number of days that the patient spent in any intensive care unit (ICU) (including all episodes) while in your hospital.

Field Values

- Relevant numeric value

Common Null Values

- Accepted

Additional Information

- Recorded in full day increments with any partial calendar day counted as a full calendar day.
- The calculation assumes that the date and time of starting and stopping an ICU episode are recorded in the patient's chart.
- If any dates are missing then a LOS cannot be calculated.
- If patient has multiple ICU episodes on the same calendar day, count that day as one calendar day.
- At no time should the ICU LOS exceed the Hospital LOS.
- If the patient had no ICU days according to the above definition, code as 'Not applicable.'
- See Appendix E for examples of ICU LOS calculations

Data Source Hierarchy Guide

- 1 ICU Nursing Flow Sheet
- 2 Calculate Based on Admission Form and Discharge Sheet
- 3 Nursing Progress Notes

References to Other Databases

- NTDS 2018

TOTAL VENTILATOR DAYS

Definition

Total Ventilator Days documents the total number of days that the patient spent on mechanical ventilation (excluding time in the OR) while in your hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- 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 days.
- Recorded in full day increments with any partial calendar day counted as a full calendar day.
- The calculation assumes that the date and time of starting and stopping Ventilator episode are recorded in the patient's chart.
- If any dates are missing then a Total Vent Days cannot be calculated.
- At no time should the Total Vent Days exceed the Hospital LOS.
- If the patient was not on the ventilator according to the above definition, code as 'Not applicable.'
- See Appendix E for examples of Total Ventilator Days calculations

Data Source Hierarchy Guide

- 1 ICU Respiratory Therapy Flowsheet
- 2 ICU Nursing Flow Sheet
- 3 Physician's Daily Progress Notes
- 4 Calculate Based on Admission Form and Discharge Sheet

References to Other Databases

- NTDS 2018

HOSPITAL DISCHARGE ORDER WRITTEN DATE

Definition

Hospital Discharge Order Written Date is the date that the order was written for the patient to be discharged from your hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate *Total Length of Hospital Stay* (which is the elapsed time from ED/Hospital arrival to Hospital Discharge)
- The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/ expired).
- The null value "Not Applicable" is used if ED Discharge Disposition = 4, 6, 9, 10, or 11.

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- Not an NTDS Field

HOSPITAL DISCHARGE ORDER WRITTEN TIME

Definition

Hospital Discharge Order Written Time is the time that the order was written for the patient to be discharged from your hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate field *Total Length of Hospital Stay* (which is the elapsed time from ED/Hospital Arrival to Hospital Discharge)
- The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/ expired).
- The null value "Not Applicable" is used if ED Discharge Disposition = 4, 6, 9, 10, or 11.

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- Not an NTDS Field

HOSPITAL DISCHARGE DATE

Definition

Hospital Discharge Date is the date that the patient was discharged from your hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate *Total Length of Hospital Stay* (which is the elapsed time from ED/Hospital arrival to Hospital Discharge)
- The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/ expired).
- The null value "Not Applicable" is used if ED Discharge Disposition = 4, 6, 9, 10, or 11.

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- NTDS 2018

HOSPITAL DISCHARGE TIME

Definition

Hospital Discharge Time is the time of day that the patient was discharged from your hospital.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Used to calculate field *Total Length of Hospital Stay* (which is the elapsed time from ED/Hospital Arrival to Hospital Discharge)
- The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/ expired).
- The null value "Not Applicable" is used if ED Discharge Disposition = 4, 6, 9, 10, or 11.

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- NTDS 2018

HOSPITAL DISCHARGE DISPOSITION

Definition

Hospital Discharge Disposition documents in general terms where the patient went after discharge from your hospital.

Field Values

- 1 Discharged/Transferred to another hospital for ongoing acute inpatient care
- 2 Discharged to an intermediate care facility (ICF)/long term care facility (LTCF)
- 3 Discharged/Transferred to home under the care of an organized home health service
- 4 Left against medical advice (AMA) or discontinued care
- 5 Died
- 6 Discharged home or self-care (routine discharge)
- 7 Discharged to a skilled nursing facility (SNF)
- 8 Discharged to hospice care
- 9 [Value 9 not used]
- 10 Discharged to court/law enforcement/jail
- 11 Discharged to another type of inpatient rehabilitation facility (IRF)
- 12 Discharged to a long term acute care hospital (LTACH)
- 13 Discharged/transferred to psychiatric hospital/psychiatric unit
- 14 Discharged/transferred to other type of institution not listed here

Common Null Values

- Accepted

Additional Information

- In field values #3 and #6, "Home" refers to the patient's current place of residence (e.g., home, prison, etc.)
- Field values based upon UB-04 disposition coding
- Disposition to any other non-medical facility should be coded as 6
- Disposition to any other medical facility should be coded as 9
- Refer to the glossary for definitions of facility types

Data Source Hierarchy Guide

- 1 Hospital Discharge Summary Sheet
- 2 Nurses Notes
- 3 Case Manager/Social Services Notes

References to Other Databases

- NTDS 2018

INPATIENT TRANSFER TO HOSPITAL

Definition

Inpatient Transfer to Hospital documents a subsequent hospital destination for the patient after inpatient admission at your hospital. This includes transfers to inpatient rehabilitation facilities.

Field Values

- Four-digit hospital code assigned by the Ohio Department of Public Safety.

Common Null Values

- Accepted

Data Source Hierarchy Guide

- 1 Discharge Summary
- 2 Progress Notes
- 3 Billing/Registration Sheet

References to Other Databases

- Not an NTDS Field

DISCHARGE STATUS

Definition

Discharge Status is whether the patient left your hospital alive or dead.

Field Values

- 1 Alive
- 2 Dead

Common Null Values

- Not Accepted

Data Source Hierarchy Guide

- 1 Discharge Summary
- 2 Progress Notes
- 3 Billing Sheet

References to Other Databases

- Not an NTDS Field

DATE OF DEATH

Definition

Date of Death is the date that the patient was pronounced dead or time of declaration of brain death.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Only complete field when *Discharge Status* is completed as *Dead*
- This may differ from the date of discharge
- *Date of Death* must be \leq *Hospital Discharge Date*

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- Not an NTDS Field

TIME OF DEATH

Definition

Time of Death is the time of day that the patient was pronounced dead or time of declaration of brain death.

Field Values

- Relevant value for data element

Common Null Values

- Accepted

Additional Information

- Only complete field when *Discharge Status* is completed as *Dead*
- This may differ from the time of discharge
- *Time of Death* must be \leq *Hospital Discharge Time*

Data Source Hierarchy Guide

- 1 Hospital Record
- 2 Billing Sheet/Medical Records Coding Summary Sheet
- 3 Physician Discharge Summary

References to Other Databases

- Not an NTDS Field

PRIMARY METHOD OF PAYMENT

Data Format is single-choice.

Definition

Primary Method of Payment is the patient's foremost source of payment for care while in your hospital.

Field Values

- 1 Medicaid
- 2 Not Billed (for any reason)
- 3 Self-Pay
- 4 Private/Commercial Insurance
- 6 Medicare
- 7 Other Government Payer Source
- 8 Workers Compensation
- 10 Other

Common Null Values

- Accepted

Additional Information

- No Fault Automobile and Blue Cross/ Blue Shield should be captured as Private/Commercial Insurance
- Examples of "Other Government Payer Source": Veterans Affairs (VA), TRICARE, CHAMPVA
- Charity or HCAP should be coded under "Not Billed"

Data Source Hierarchy Guide

- 1 Billing Sheet/Medical Records Coding Summary Sheet
- 2 Hospital Admission Form

References to Other Databases

- NTDS 2018

AUTOPSY PERFORMED

Data Format is single-choice.

Definition

Autopsy Performed documents whether an internal organ exam was performed on the patient by a trained pathologist.

Field Values

- 1 Yes, an autopsy was performed
- 2 No, an autopsy was not performed

Common Null Values

- Accepted

Additional Information

- Select *NA* if the patient is alive

Additional Information

- If only an external or visual-type exam was done and no internal organs were surgically explored, field value #2, *No, an autopsy was not performed*, should be selected.

Data Source Hierarchy Guide

- 1 Autopsy Report
- 2 Discharge Summary

References to Other Databases

- Not an NTDS Field

HOSPITAL COMPLICATIONS

Data Format is multiple-choice.

Definition

Hospital Complications document any medical complication that occurred during the patient's stay at your hospital.

Field Values

- | | | | |
|----|---|----|--|
| 0 | No Complications | 25 | Unplanned intubation |
| 1 | Complications occurred that are otherwise not on this list | 29 | Osteomyelitis |
| 4 | Acute kidney injury | 30 | Unplanned return to the OR |
| 5 | Acute lung injury/ Acute respiratory distress syndrome (ARDS) | 31 | Unplanned Admission to the ICU |
| 8 | Cardiac arrest with CPR | 32 | Severe Sepsis |
| 12 | Deep surgical site infection | 33 | Catheter-associated urinary tract infection (CAUTI) |
| 14 | Deep Vein Thrombosis (DVT) / thrombophlebitis | 34 | Central line-associated bloodstream infection (CLABSI) |
| 15 | Extremity compartment syndrome | 35 | Ventilator-associated pneumonia (VAP) |
| 18 | Myocardial infarction | 36 | Alcohol Withdrawal Syndrome |
| 19 | Organ/ space surgical site infection | 37 | Pressure Ulcer |
| 21 | Pulmonary Embolism | 38 | Superficial Incisional Surgical Site Infection |
| 22 | Stroke/ CVA | | |

Common Null Values

- Accepted

Additional Information

- The Field Value #1, *Complications occurred that are otherwise not on this list*, is chosen if that patient had a complication but it is not included in the list here. The list here mirrors the NTDS list of tracked patient complications.
- The field value #0, *No Complications*, should be used for patients with no medical complications as a result of this injury episode.
- Select all that apply

Data Source Hierarchy Guide

- 1 Discharge Summary
- 2 History and Physical
- 3 Billing Sheet

References to Other Databases

- NTDS 2018

Appendix A
Discharge Disposition

Field Value	Variable	Definition
2	Intermediate Care Facility (ICF)	A nursing home providing long-term care less than a skilled level, usually custodial care only.
7	Skilled Nursing Facility (SNF)	A nursing home or unit which provides skilled nursing or rehabilitation care, less than the level of an inpatient rehabilitation facility.
8	Hospice	A special way of caring for persons who are terminally ill. Hospice services can be provided in the home or at a nursing facility.
9	Inpatient Rehabilitation Facility (IRF)	A hospital or part of a hospital which provides intensive (3 hours per day) of rehabilitation therapies to persons with disability from recent injury or illness.
10	Long Term Acute Care Hospital (LTACH)	A special hospital or part of a hospital that provides treatment for patients who stay, on average, more than 25 days for extended acute care. Most patients are transferred from an intensive or critical care unit.

Appendix B

Procedure List for *Hospital Procedures* Data Field

DIAGNOSTIC & THERAPEUTIC IMAGING

Computed tomographic studies* (Head, Chest, Abdomen, Pelvis)
Diagnostic ultrasound (includes FAST)
Doppler ultrasound of extremities*
Angiography
Angioembolization
Inferior vena cava (IVC) filter
REBOA (ICD10 o4L03DZ)

CARDIOVASCULAR

Open cardiac massage
Cardiopulmonary Resuscitation (CPR)

CENTRAL NERVOUS SYSTEM

Insertion of ICP monitor
Ventriculostomy
Cerebral oxygen monitoring

GASTROINTESTINAL

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

GENITOURINARY

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

MUSCULOSKELETAL

Soft tissue/bony debridement*
Closed reduction fractures
Skeletal (and halo) traction*
Fasciotomy

RESPIRATORY

Insertion of endotracheal tube* (excludes intubations performed in the OR)
Continuous invasive mechanical ventilation
Chest tube*
Bronchoscopy
Tracheostomy

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 *

***May be performed multiple times during hospitalization**

Appendix C

Co-Morbid Conditions

Advanced Directive Limiting Care: The patient had a written request limiting life sustaining therapy, or similar advanced directive, present prior to arrival at your center.

Alcohol Use Disorder: (Consistent with the American Psychiatric Association) APA DMS 5, 2013.) Diagnosis of alcohol use disorder documented in the patient's medical record, present to injury.

Angina Pectoris: Consistent with the American Heart Association (AHA), May 2015.) Chest pain or discomfort due to Coronary Heart Disease, present prior to injury. Usually causes uncomfortable pressure, fullness, squeezing or pain in the center of the chest. Patient may also feel discomfort to the neck, jaw, shoulder, back or arm. Symptoms may be different in women than man. A diagnosis of Angina or Chest Pain must be documented in the patient's medical record.

Anticoagulant Therapy: Documentation in the medical record of the administration of medication (anticoagulants, antiplatelet agents, thrombin inhibitors, thrombolytic agents) that interferes with blood clotting, present prior to injury. Excludes patients who are on chronic Aspirin therapy. Some examples are:

ANTICOAGULANTS	ANTIPLATELET AGENTS	THROMBIN INHIBITORS	THROMBOLYTIC AGENTS
Fondaparinux	Tirofiban	Bivalirudin	Alteplase
Warfarin	Dipyridamole	Argatroban	Reteplase
Dalteparin	Anagrelide	Lepirudin, Hirudin	Tenecteplase
Lovenox	Eptifibatide	Drotrecogin alpha	kabikinase
Pentasaccharide	Dipyridamole	Dabigatran	tPA
APC	Clopidogrel		
Ximelagatran	Cilostazol		
Pentoxifylline	Abciximab		
Rivaroxaban	Ticlopidine		
Apixaban	Prasugrel		
Heparin	Ticagrelor		

Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD): A disorder involving inattention, hyperactivity, or impulsivity requiring medication for treatment, present prior to ED/Hospital arrival. A diagnosis of ADD/ADHD must be documented in patient's medical record.

Bleeding Disorder: (Consistent with the American Society of Hematology, 2015.) A group of conditions that result when the blood cannot clot properly, present prior to injury. A bleeding disorder diagnosis must be documented in the patient's medical record (e.g. Hemophilia, von Willebrand Disease, Factor V Leiden.)

Cerebrovascular Accident (CVA): 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.) A diagnosis of CVA must be documented in the patient's medical record.

Chronic Obstructive Pulmonary Disease (COPD): (Consistent with World Health Organization (WHO), 2015.) Lung ailment that is characterized by a persistent blockage of airflow from the lungs, present prior to injury. It is not one

single disease but an umbrella term used to describe chronic lung diseases that cause limitations in lung airflow. The more familiar term “chronic bronchitis” and “emphysema” are no longer, used but are now include within the COP diagnosis and result in any one or more of the following:

- Functional disability from COPD (e.g., dyspnea, inability to perform activities of daily living [ADLs].)
- Hospitalization in the past for treatment of COPD.
- Requires chronic bronchodilator therapy with oral or inhaled agents.
- A Forced Expiratory Volume in 1 second (FEV₁) of <75% of predicted on pulmonary function testing.

A diagnosis of COPD must be documented the patient’s medical record. Do not include patients whose only pulmonary disease is acute asthma, and/or diffuse interstitial fibrosis or sarcoidosis.

Chronic Renal Failure: Chronic renal failure prior to injury that was requiring periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration, present prior to injury. A diagnosis of Chronic Renal Failure must be documented in the patient’s medical record.

Cirrhosis: Documentation in the medical record of cirrhosis, which might also be referred to as end stage liver disease, present prior to injury. 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. A diagnosis of Cirrhosis, or documentation of Cirrhosis by diagnostic imaging studies or a laparotomy/laparoscopy, must be present in patient’s medical record.

Congenital Anomalies: Documentation of a cardiac, pulmonary, body wall, CNS/spinal, GI, renal, orthopedic, or metabolic congenital anomaly, present prior to injury. A diagnosis of a Congenital Anomaly must be documented in the patient’s medical record.

Congestive Heart Failure (CHF): 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, present prior to injury. To be included, this condition must be noted in the medical record as CHF, congestive heart failure, or pulmonary edema with onset of increasing symptoms within 30 days prior to injury.

Common manifestations are:

- Abnormal limitation in exercise tolerance due to dyspnea or fatigue
- Orthopnea (dyspnea on lying supine)
- Paroxysmal nocturnal dyspnea (awakening from sleep with dyspnea)
- Increased jugular venous pressure
- Pulmonary rales on physical examination
- Cardiomegaly
- Pulmonary vascular engorgement

Currently Receiving Chemotherapy for Cancer: A patient who is currently receiving any chemotherapy treatment for cancer prior to injury. 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.

Current Smoker: A patient who reports smoking cigarettes every day or some days within the last 12 months, prior to injury. Excludes patients who smoke cigars or pipes or use smokeless tobacco (chewing tobacco or snuff).

Dementia: Documentation in the patient’s medical record of dementia including senile or vascular dementia (e.g., Alzheimer’s) present prior to injury.

Diabetes Mellitus: Diabetes mellitus that requires exogenous parenteral insulin or an oral hypoglycemic agent, prior to injury. A diagnosis of Diabetes Mellitus must be documented in the patient's medical record.

Disseminated Cancer: Patients who have cancer that has spread to one site or more sites in addition to the primary site. AND in whom the presence of multiple metastases indicates the cancer is widespread, fulminant, or near terminal, present prior to injury. 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, and bone). A diagnosis of Cancer that has spread to one or more sites must be documented in the patient's medical record.

Functionally Dependent Health Status: Pre-injury functional status may be represented by the ability of the patient to complete age appropriate activities of daily living (ADL). Activities of daily living include: bathing, feeding, dressing, toileting, and walking. Include patients whom prior to injury, and as a result of cognitive or physical limitations relating to a pre-existing medical condition, was partially dependent or completely dependent upon equipment, devices or another person to complete some or all activities of daily living.

Hypertension: History of a persistent elevation of blood pressure requiring medical therapy, present prior to injury. A diagnosis of Hypertension (HTN) must be documented in patient's medical record.

Mental/ Personality Disorder: (Consistent with American Psychiatric Association (APA) DSM 5, 2013.) Documentation of the presence of pre-injury depressive disorder, bipolar disorder, schizophrenia, borderline or antisocial personality disorder, and/or adjustment disorder/post-traumatic stress disorder. A diagnosis of Mental/Personality Disorder must be documented in the patient's medical record.

Myocardial Infarction (MI): History of MI in the six months prior to injury. A diagnosis of MI must be documented in the patient's medical record.

Peripheral Arterial Disease (PAD): (Consistent with Centers for Disease Control, 2014 Fact Sheet.) The narrowing or blockage of the vessels that carry blood from the heart to the legs, present prior to injury. It is primarily caused by the buildup of fatty plaque in the arteries, which is called atherosclerosis. PAD can occur in any blood vessel, but it is more common in the legs than the arms. A diagnosis of PDA must be documented in the patient's medical record.

Prematurity: Infants delivered before 37 weeks from the first day of the last menstrual period, and a history of bronchopulmonary dysplasia, or ventilator support for greater than 7 days after birth. A diagnosis of Prematurity, or delivery before 37 weeks gestation, must be documented in the patient's medical record.

Steroid Use: Patients that required the regular administration of oral or parenteral corticosteroid medications within 30 days prior to injury for a chronic medical condition. Examples of oral or parenteral corticosteroid medications are: prednisone and dexamethasone. Examples of chronic medical conditions are: COPD, asthma, rheumatologic disease, rheumatoid arthritis, and inflammatory bowel disease. Exclude topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally.

Substance Abuse Disorder: (Consistent with American Psychiatric Association (APA) DSM 5, 2013.) Documentation of Substance Abuse Disorder documented in the patient medical record, present prior to injury. A diagnosis of Substance Abuse Disorder must be documented in the patient's medical record.

Osteoporosis: Thinning of bone tissue and loss of bone density over time; most common in post-menopausal women.

Hearing Impaired: Impairment of the sense of hearing.

Vision Impairment: Vision impairments result from conditions that range from the presence of some usable vision, low vision, to the absence of any vision, total blindness. Low vision is a term that describes a person with a vision impairment that cannot be improved by correction but has some usable vision remaining.

Language Barrier: Barrier to communication resulting from speaking different languages.

Appendix D Complications

Acute Kidney Injury: (Consistent with the March 2012 Kidney Disease Improving Global Outcome (KDIGO) Guideline.) Acute kidney injury, AKI (stage 3), is an abrupt decrease in kidney function that occurred during the patient's stay at your hospital.

KDIGO (Stage 3) Table:

(SCr) 3 times baseline

OR

Increase in SCr to ≥ 4.0 mg/dl (≥ 353.6 μ mol/l)

OR

Initiation of renal replacement therapy OR, in patients < 18 years, decrease in eGFR to <35 ml/min per 1.73 m²

OR

Urine output <0.3 ml/kg/h for ≥ 24 hours

OR

Anuria for ≥ 12 hours

A diagnosis of AKI must be documented in the patient's medical record. If the patient or family refuses treatment (e.g. dialysis,) the condition is still considered present if a combination of oliguria and creatinine are present.

EXCLUDE patients with renal failure that were requiring chronic renal replacement therapy such as periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration prior to injury.

Acute Respiratory Distress Syndrome (ARDS): (Consistent with the 2012 New Berlin Definition. Always use the most recent New Berlin definition provided.)

Timing:	Within 1 week of known clinical insult or new or worsening respiratory symptoms.
Chest imaging:	Bilateral opacities – not fully explained by effusions, lobar/lung collapse, or nodules
Origin of edema:	Respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g., echocardiography) to exclude hydrostatic edema if no risk factor present
Oxygenation:	$200 < PaO_2/FiO_2 \leq 300$ (at a minimum) With PEEP or CPAP ≥ 5 cmH ₂ O

A diagnosis of ARDS must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Alcohol Withdrawal Syndrome: Consistent with the 2016 World Health Organization (WHO) definition of Alcohol Withdrawal Syndrome. Always use the most recent definition provided by the WHO). Characterized by tremor, sweating, anxiety, agitation, depression, nausea, and malaise. It occurs 6-48 hours after cessation of alcohol consumption, and when uncomplicated, abates after 2-5 days. It may be complicated by grand mal seizures and may progress to delirium (known as delirium tremens). Must have occurred during the patient's initial stay at your hospital, and documentation of alcohol withdrawal must be in the patient's medical record.

Cardiac Arrest with CPR: Cardiac arrest is the sudden cessation of cardiac activity after hospital arrival. The patient becomes unresponsive with no normal breathing and no signs of circulation. If corrective measures are not taken

rapidly, this condition progresses to sudden death. Cardiac Arrest must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

EXCLUDE patients who are receiving CPR on arrival to your hospital.

INCLUDE patients who have had an episode of cardiac arrest evaluated by hospital personnel and received compressions or defibrillation or cardioversion or cardiac pacing to restore circulation.

Catheter-Associated Urinary Tract Infection (CAUTI): (Consistent with the January 2016 CDC defined CAUTI.) A UTI where an indwelling urinary catheter was in place for > 2 calendar days on the date of the event, with day of device placement being day 1,

AND

An indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for > 2 calendar days and then removed, the date of the event for the UTI must be day of discontinuation or the next day for the UTI to be catheter-associated.

January 2016 CDC CAUTI Criterion SUTI 1a:

Patient must meet 1, 2, and 3 below:

1. Patient had an indwelling catheter in place for the entire day on the date of event and such catheter had been in place for calendar days, on the that date (day of device placement = Day 1) AND was either:
 - Present for any portion of the calendar day on the date of event, OR
 - Removed the day before the date of event
2. Patient has at least one of the following signs or symptoms:
 - Fever ($\geq 38^{\circ}$ C)
 - Suprapubic tenderness with no other recognized cause
 - Costovertebral angle pain or tenderness with no other recognized cause
3. Patient has a urine culture with no more than two species of organisms, at least one of which is a bacteria $> 10^5$ CFU/ml.

January 2016 CDC CAUTI Criterion SUTI 2:

Patient must meet 1, 2, and 3 below:

1. Patient is ≤ 1 year of age
2. Patient has at least one of the following signs or symptoms:
 - Fever ($> 38.0^{\circ}$ C)
 - Hypothermia ($<36.0^{\circ}$ C)
 - Apnea with no other recognized cause
 - Bradycardia with no other recognized cause
 - Lethargy with no other recognized cause
 - Vomiting with no other recognized cause
 - Suprapubic tenderness with no other recognized cause

Patient has a urine culture with no more than two species of organisms, at least one of which is bacteria of $\geq 10^5$ CFU/ml.

A diagnosis of UTI must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Catheter-Related Blood Stream Infection: (Consistent with the January 2016 CDC defined CLABSI.) A laboratory-confirmed bloodstream infection (LCBI) where central line (CL) or umbilical catheter (UC) was in place for > 2 calendar days on the date of event, with day of device placement being Day 1.

AND

The line was also in place on the date of event or the day before. If a CL or UC was in place for > 2 calendar days and then removed, the date of event of the LCBI must be the day of discontinuation or the next day to be a CLABSI. If the patient is admitted or transferred into a facility with an implanted central line (port) in place, and that is the patient's central line, day of first access in an inpatient location is considered Day. "Access" is defined as line placement, infusion or withdrawal through the line. Such lines continue to be eligible for CLABSI once they are accessed until they are either discontinued or the day after patient discharge (as per the Transfer Rule). Note that the "de-access" of a port does not result in the patient's removal from CLABSI surveillance.

January 2016 CDC Criterion LCBI 1:

Patient has a recognized pathogen identified from one or more blood specimens by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST)).

AND

Organism(s) identified in blood is not related to an infection at another site.

OR

January 2016 CDC Criterion LCBI 2:

Patient has at least one of the following signs or symptoms:

- Fever ($>38^{\circ}\text{C}$)
- Chills
- Hypotension

AND

Organism(s) identified from blood is not related to an infection at another site

AND

The same common commensal (i.e., diphtheroids [*Corynebacterium* spp. Not *C. diphtheria*], *Bacillus* spp. [not *B. anthracis*], *Propionibacterium* spp., coagulase-negative staphylococci [including *S. epidermidis*], viridans group streptococci, *Aerococcus* spp., and *Micrococcus* spp.) is identified from two or more blood specimens drawn on separate occasions, by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing

(ASC/AST). Criterion elements must occur within the Infection Window Period, the 7-day time period which includes the collection date of the positive blood, the 3 calendar days before and the 3 calendar days after.

OR

January 2016 CDC Criterion LCBI 3:

Patient \leq 1 year of age has at least one of the following signs or symptoms:

- Fever ($>38^{\circ}\text{C}$)
- Hypothermia ($<36^{\circ}\text{C}$)
- Apnea
- Bradycardia

AND

Organism(s) identified from blood is not related to an infection at another state

AND

The same common commensal (i.e., diphtheroids [*Corynebacterium* spp. Not *C. diphtheria*], *Bacillus* spp. [not *B. anthracis*], *Propionibacterium* spp., coagulase-negative staphylococci [including *S. epidermidis*], viridans group streptococci, *Aerococcus* spp., and *Micrococcus* spp.) is identified from two or more blood specimens drawn on separate occasions, by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST). Criterion elements must occur within the Infection Window Period, the 7-day time period which includes the collection date of the positive blood, the 3 calendar days before and the 3 calendar days after.

A diagnosis of LCBSI must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Deep Surgical Site Infection: (Consistent with the January 2016 CDC defined SSI.) Must meet the following criteria:

Infection occurs within 30 or 90 days after NHSN operative procedure (where day 1= the procedure date) According to list in Table 2

AND

Patient has at least one of the following:

- Purulent drainage from the deep incision
- A deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician** or other designee and organism is identified by a culture or non-culture based microbiologic testing method which is performed for purposed of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ACS/AST) or culture or non-culture based microbiologic test method is not performed

AND

Patient has at least one of the following signs or symptoms:

- Fever ($>38^{\circ}\text{C}$)

- Localized pain or tenderness
- A culture or non-culture based test that has a negative finding does not meet this criterion
- An abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test

COMMENTS: There are two specific types of deep incisional SSIs:

- Deep Incisional Primary (DIP): a deep incisional SSI that is identified in a primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB)
- Deep Incisional Secondary (DIS): a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site [leg] incision for CBGB.)

Table 2. Surveillance Period for Deep Incisional or Organ/Space SSI Following Selected NHSN Operative Procedure Categories. Day 1 = the date of the procedure.

30- day Surveillance			
Code	Operative Procedure	Code	Operative Procedure
AAA	Abdominal Aortic Aneurysm repair	LAM	Laminectomy
AMP	Limb Amputation	LTP	Liver transplant
APPY	Appendix Surgery	NECK	Neck surgery
AVSD	Shunt for dialysis	NEPH	Kidney surgery
BIBL	Bile duct, liver or pancreatic surgery	OVRV	Ovarian surgery
CEA	Carotid endarterectomy	PRST	Prostate surgery
CHOL	Gallbladder Surgery	REC	Rectal surgery
COLO	Colon Surgery	SB	Small bowel surgery
CSEC	Cesarean Section	SPLE	Spleen surgery
GAST	Gastric surgery	THOR	Thoracic surgery
HTP	Heart transplant	THUR	Thyroid and/or parathyroid surgery
HYST	Abdominal hysterectomy	VHYS	Vaginal hysterectomy
KTP	Kidney transplant	XLAP	Exploratory Laparotomy
90- day Surveillance			
Code	Operative Procedure		
BRST	Breast surgery		
CARD	Cardiac surgery		
CBGB	Coronary artery bypass graft with both chest and donor site incisions		
CBGC	Coronary artery bypass graft with check incision only		
CRAN	Craniotomy		
FUSN	Spinal fusion		
FX	Open reduction of fracture		
HER	Herniorrhaphy		
HPRO	Hip prosthesis		
KPRO	Knee prosthesis		
PACE	Pacemaker surgery		
PVBY	Peripheral vascular bypass surgery		
VSHN	Ventricular shunt		

A diagnosis of SSI must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Deep Vein Thrombosis (DVT): The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. The patient must be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava. A diagnosis of DVT must be documented in the patient's medical record. This diagnosis may be confirmed by a venogram, ultrasound, or CT and have occurred during the patient's initial stay at your hospital.

Extremity Compartment Syndrome: 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. A diagnosis of Extremity Compartment Syndrome must be documented in the patient's medical record and must have occurred during the patient's initial stay at your hospital. Only record as a complication if it is originally missed, leading to late recognition, a need for late intervention, and has threatened limb viability.

Myocardial Infarction (MI): An acute myocardial infarction must be noted with documentation of any of the following:

Documentation of ECG changes indicative of acute MI (one or more of the following three):

- ST elevation > 1mm in two or more contiguous leads
- New left bundle branch block
- New q-wave in two or more contiguous leads

OR

New elevation in troponin greater than three times upper level of the reference range in the setting of suspected myocardial ischemia

OR

Physician diagnosis of myocardial infarction

Must have occurred during the patient's initial stay at your hospital.

Organ/Space Surgical Site Infection: (Consistent with the January 2016 CDC defined SSI.) Must meet the following criteria:

Infection that occurs within 30 or 90 days after the NHS operative procedure (where da 1 = the procedure date) according to the list in Table 2

AND

Infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure

AND

Patient has at least **one** of the following:

- a) Purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage)
- b) Organisms are identified from an aseptically-obtained fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment e.g., not Active Surveillance Culture/Testing (ASC/AST).

- c) An abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test

AND

Meets at least one criterion for a specific organ/space infection site listed in Table 3. These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter.

Table 2. Surveillance Period for Deep Incisional or Organ/Space SSI Following Selected NHSN Operative Procedure Categories. Day 1 = the date of the procedure.

30- day Surveillance			
Code	Operative Procedure	Code	Operative Procedure
AAA	Abdominal Aortic Aneurysm repair	LAM	Laminectomy
AMP	Limb Amputation	LTP	Liver transplant
APPY	Appendix Surgery	NECK	Neck surgery
AVSD	Shunt for dialysis	NEPH	Kidney surgery
BIBL	Bile duct, liver or pancreatic surgery	OVRY	Ovarian surgery
CEA	Carotid endarterectomy	PRST	Prostate surgery
CHOL	Gallbladder Surgery	REC	Rectal surgery
COLO	Colon Surgery	SB	Small bowel surgery
CSEC	Cesarean Section	SPLE	Spleen surgery
GAST	Gastric surgery	THOR	Thoracic surgery
HTP	Heart transplant	THUR	Thyroid and/or parathyroid surgery
HYST	Abdominal hysterectomy	VHYS	Vaginal hysterectomy
KTP	Kidney transplant	XLAP	Exploratory Laparotomy
90- day Surveillance			
Code	Operative Procedure		
BRST	Breast surgery		
CARD	Cardiac surgery		
CBGB	Coronary artery bypass graft with both chest and donor site incisions		
CBGC	Coronary artery bypass graft with check incision only		
CRAN	Craniotomy		
FUSN	Spinal fusion		
FX	Open reduction of fracture		
HER	Herniorrhaphy		
HPRO	Hip prosthesis		
KPRO	Knee prosthesis		
PACE	Pacemaker surgery		
PVBY	Peripheral vascular bypass surgery		
VSHN	Ventricular shunt		

Table 3. Specific Sites of an Organ/Space SSI

Code	Site	Code	Site
------	------	------	------

BONE	Osteomyelitis	LUNG	Other infections of respiratory tract
BRST	Breast abscess mastitis	MED	Mediastinitis
CARD	Myocarditis or Pericarditis	MEN	Meningitis or ventriculitis
DISC	Disc space	ORAL	Oral cavity (mouth, tongue, or gums)
EAR	Ear, Mastoid	OREP	Other infections of the male or female reproductive tract
EMET	Endometritis	PJI	Periprosthetic Joint Infection
ENDO	Endocarditis	SA	Spinal abscess without meningitis
EYE	Eye, other than conjunctivitis	SINU	Sinusitis
GIT	GI Tract	UR	Upper respiratory tract
HEP	Hepatitis	USI	Urinary System Infection
IAB	Intraabdominal, not specified	VASC	Arterial or venous infection
IC	Intracranial, brain abscess or dura	VCUF	Vaginal cuff
JNT	Joint or bursa		

A diagnosis of SSI must be documented in the patient’s medical record, and must have occurred during the patient’s initial stay at your hospital.

Osteomyelitis: (Consistent with the January 2016 CDC definition of Bone and Joint Infection.) Osteomyelitis must meet at least one of the following criteria:

1. Patient has organisms identified by culture or non-cultured based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance Culture/Testing (ASC/ASST).
2. Patient has evidence of osteomyelitis on gross anatomic or histopathologic examination.
3. Patient has at least two of the following localized signs or symptoms:
 - o Fever (38° C)
 - o Swelling
 - o Pain or Tenderness
 - o Heat
 - o Drainage

AND at least one of the following:

- a) Organisms identified from blood by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST) in a patient with imaging test evidence suggestive of infection (e.g., x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]) which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for osteomyelitis)
- b) Imaging test evidence suggestive of infection (e.g., x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]), which is equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for osteomyelitis)

*with no other recognized cause

A diagnosis of Osteomyelitis must be documented in the patient’s medical record, and must have occurred during the patient’s initial stay at your hospital.

Pulmonary Embolism: 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 and/or a diagnosis of PE is documented in the patient's medical record. Must have occurred during the patient's initial stay at your hospital.

Pressure Ulcer: (Consistent with the National Pressure Ulcer Advisory Panel (NPUAP) 2014.) A localized injury to the skin and/or underlining tissue usually over a boney prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated. Equivalent to NPUAP Stage II-IV, Unstageable/Unclassified, and Suspected Deep Tissue Injury. Documentation of Pressure Ulcer must be in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Severe Sepsis: (Consistent with the American College of Chest Physicians and the Society of Critical Care Medicine October 2010.)

Severe Sepsis: sepsis plus organ dysfunction, hypotension (low blood pressure), or hypoperfusion (insufficient blood flow) to 1 or more organs.

Septic shock: sepsis with persisting arterial hypotension or hypoperfusion despite adequate fluid resuscitation.

A diagnosis of Sepsis must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Stroke/CVA: A focal or global neurological deficit of rapid onset and NOT present on admission. The patient must have at least one of the following symptoms:

- Change in level of consciousness
- Hemiplegia
- Hemiparesis
- Numbness or sensory loss affecting on side of the body
- Dysphasia or aphasia
- Hemianopia
- Amaurosis fugax
- Other neurological signs or symptoms consistent with stroke

AND:

- Duration of neurological deficit \geq 24 h

OR:

- Duration of deficit < 24 h, if neuroimaging (MR, CT, or cerebral angiography) documents a new hemorrhage or infarct consistent with stroke, or therapeutic intervention(s) were performed for stroke, or the neurological deficit results in death

AND:

- No other readily identifiable non-stroke cause, e.g., progression of existing traumatic brain injury, seizure, tumor, metabolic or pharmacologic etiologies, is identified

AND:

- Diagnosis is confirmed by neurology or neurosurgical specialist or neuroimaging procedure (MR, CT, angiography,) or lumbar puncture (CSF demonstrating intracranial hemorrhage that was not present on admission.)

Although the neurologic deficit must not present on admission, risk factors predisposing to stroke (e.g., blunt cerebrovascular injury, dysrhythmia) may be present on admission. A diagnosis of Stroke/CVA must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Superficial Incisional Surgical Site Infection: (Consistent with the January 2016 CDC defined SSI.) Must meet the following criteria.

Infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date)

AND

Involves only skin or subcutaneous tissue of the incision

AND

Patient has at least **one** of the following:

- Purulent drainage from the superficial incision.
- Organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).
- Superficial incision is deliberately opened by the surgeon, attending physician** or other designee and culture or non-culture based testing is not performed

AND

Patient has at least one of the following signs or symptoms:

- Pain or tenderness
- Localized swelling
- Erythema
- Heat

A culture or non-culture based test that has a negative finding does not meet this criterion

Diagnosis of Superficial incisional SSI by the surgeon or attending physician** or other designee.

COMMENTS: There are two specific types of superficial incisional SSIs:

1. Superficial Incisional Primary (SIP)- a superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB)
2. Superficial Incisional Secondary (SIS)- a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site incision for CBGB)

A diagnosis of SSI must be documented in the patient's medical record, and must have occurred during the patient's initial stay at your hospital.

Unplanned Admission to ICU: Patients admitted to the ICU after initial transfer to the floor and/or patients with an unplanned return to the ICU after initial ICU discharge. Must have occurred during the patient's initial stay at your hospital. **EXCLUDE:** Patients in which ICU care was required for postoperative care of a planned surgical procedure.

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 > 24 hours after extubation. Must have occurred during the patient's initial stay at your hospital.

Unplanned Return to the Operating Room: Unplanned return to the operating room after initial operation management for a similar or related previous procedure. Must have occurred during the initial stay at your hospital.

Ventilator-Associated Pneumonia (VAP): Consistent with the January 2016 CDC Defined VAP.) A pneumonia where the patient is on mechanical ventilation for >2 calendar days on the date of event, with day of ventilator placement being Day 1,

AND

The ventilator was in place on the date of event or the day before. If the patient is admitted or transferred into a facility on a ventilator, the day of admission is considered Day 1.

VAP Algorithm (PNU2 Bacterial or Filamentous Fungal Pathogens):

RADIOLOGY	SIGNS/SYMPTOMS	LABORATORY
<p>Two or more serial chest radiographs with at least one of the following:</p> <ul style="list-style-type: none"> • New or progressive and persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old <p>NOTE: In patients without underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.</p>	<p>At least one of the following:</p> <ul style="list-style-type: none"> • Fever (>38°C or >100.4°F) • Leukopenia (<4000 WBC/mm³) or leukocytosis (≥12,000 WBC/mm³) • For adults ≥70 years old, altered mental status with no other recognized cause AND at least two of the following: <ul style="list-style-type: none"> • New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea, or tachypnea • Rales or bronchial breath sounds • Worsening gas exchange (e.g., O₂ desaturations (e.g., 	<p>At least one of the following:</p> <ul style="list-style-type: none"> • Positive growth in blood culture not related to another source of infection • Positive growth in culture of pleural fluid • Positive quantitative culture from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing) • ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram's stain) • Positive quantitative culture of lung tissue • Histopathologic exam shows at least one of the following evidences of pneumonia: <ul style="list-style-type: none"> o Abscess formation or foci of consolidation with intense

	PaO ₂ /FiO ₂ ≤ 240), increased oxygen requirements, or increased ventilator demand)	PMN accumulation in bronchioles and alveoli o Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae
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VAP Algorithm (PNU2 Viral, Legionella, and other Bacterial Pneumonias):

RADIOLOGY	SIGNS/SYMPTOMS	LABORATORY
<p>Two or more serial chest radiographs with at least one of the following:</p> <ul style="list-style-type: none"> • New or progressive and persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤ 1 year old <p>NOTE: In patients without underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic</p>	<p>At least one of the following:</p> <ul style="list-style-type: none"> • Fever ($>38^{\circ}\text{C}$ or $>100.4^{\circ}\text{F}$) • Leukopenia (<4000 WBC/mm³) or leukocytosis ($\geq 12,000$ WBC/mm³) • For adults ≥ 70 years old, altered mental status with no other recognized cause <p>AND at least two of the following:</p> <ul style="list-style-type: none"> • New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, 	<p>At least one of the following:</p> <ul style="list-style-type: none"> • Positive culture of virus, Legionella or Chlamydia from respiratory secretions • Positive non culture diagnostic laboratory test of respiratory secretions or tissue for virus, Bordetella, Chlamydia, Mycoplasma, Legionella (e.g., EIA< FAMA< shell vial assay, PCR, micro-IF) • Fourfold rise in paired sera (IgG) for pathogen (e.g., influenza viruses, Chlamydia) • Fourfold rise in L. pneumophila serogroup 1 antibody titer to $\geq 1:128$ in paired acute and convalescent sera by indirect IFA. • Detection of Legionella pneumophila serogroup 1 antigens in urine by RIA or EIA

VAP Algorithm ALTERNATE CRITERIA (PNU1), for infant's ≤ 1 year old:

RADIOLOGY	SIGNS/SYMPTOMS
<p>Two or more serial chest radiographs with at least one of the following:</p> <ul style="list-style-type: none"> • New or progressive and persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤ 1 year old 	<p>Worsening gas exchange (e.g., O₂ desaturation [e.g. pulse oximetry $<94\%$], increased oxygen requirements, or increased ventilator demand)</p> <p>AND at least three of the following:</p> <ul style="list-style-type: none"> • Temperature instability • Leukopenia (<4000 WBC/mm³) or leukocytosis ($\geq 15,000$ WBC/mm³) and left shift ($\geq 10\%$ band forms)

<p>NOTE: In patients without underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable.</p>	<ul style="list-style-type: none"> • New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements • Apnea, tachypnea, nasal flaring with retraction of chest wall, or nasal flaring with grunting • Wheezing, rales, or rhonchi • Cough • Bradycardia (<100 beats/min) or tachycardia (>170 beats/min)
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VAP Algorithm ALTERNATE CRITERIA (PNU₁), for children >1 year old or ≤12 years old:

RADIOLOGY	SIGNS/SYMPTOMS/LABORATORY
<p>Two or more serial chest radiographs with at least one of the following:</p>	<p>At least three of the following:</p>
<ul style="list-style-type: none"> • New or progressive and persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old <p>NOTE: In patients without underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest radiograph is acceptable</p>	<ul style="list-style-type: none"> • Fever (>38.0°C or >100.4°F) or hypothermia (<36.0°C or <96.8°F) • Leukopenia (<4000 WBC/mm³) or leukocytosis (≥15,000 WBC/mm³) • New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea, apnea, or tachypnea • Rales or bronchial breath sounds • Worsening gas exchange (e.g., O₂ desaturations [e.g., pulse oximetry <94%], increased oxygen requirements, or increased ventilator demand)

Appendix E

Calculating ICU Length of Stay and Ventilator Days

Example #	Start Date	Start Time	Stop Date	Stop Time	LOS
A.	01/01/11	01:00	01/01/11	04:00	1 day (one calendar day)
B.	01/01/11	01:00	01/01/11	04:00	
	01/01/11	16:00	01/01/11	18:00	1 day (2 episodes within one calendar day)
C.	01/01/11	01:00	01/01/11	04:00	
	01/02/11	16:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
D.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
E.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	21:00	2 days (episodes on 2 separate calendar days)
F.	01/01/11	Unknown	01/01/11	16:00	1 day
G.	01/01/11	Unknown	01/02/11	16:00	2 days (patient was in ICU on 2 separate calendar days)
H.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	Unknown	2 days (patient was in ICU on 2 separate calendar days)
I.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	20:00	2 days (patient was in ICU on 2 separate calendar days)
J.	01/01/11	Unknown	01/02/11	16:00	
	01/03/11	18:00	01/03/11	20:00	3 days (patient was in ICU on 3 separate calendar days)
K.	Unknown	Unknown	01/02/11	16:00	
	01/03/11	18:00	01/03/11	20:00	Unknown (can't compute total)

Appendix F

Glossary of Abbreviations

ACE	Angiotensin Converting Enzyme
ACS	Abdominal compartment syndrome; American College of Surgeons
ADL	Activities of daily living
AIS	Abbreviated Injury Scale
ARDS	Acute respiratory distress syndrome
ARF	Acute Renal Failure
BMI	Body mass index
BP	Blood pressure
CDC	Centers for Disease Control and Prevention
CHF	Congestive heart failure
CPAP/BIPAP	Continuous positive airway pressure/variable bi-level positive airway pressure
CT	Computerized topography
CVA	Cerebral vascular accident
DNR	Do not resuscitate
DNR-CC	Do not resuscitate; comfort care only
DNR-CCA	Do not resuscitate; comfort care arrest
DVT	Deep vein thrombosis
EOA	Esophageal Obturator Airway
ED	Emergency department
EMS	Emergency medical services
FAST	Focused assessment with sonography for trauma
FIPS	Federal Information Processing Standard codes
GCS	Glasgow Coma Score
ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
ICD-10-CM	International Classification of Diseases, Tenth Revision, Clinical Modification
IgG	Immunoglobulin G
ISS	Injury Severity Score
LMA	Laryngeal Mask Airway
MI	Myocardial infarction
MRI	Magnetic resonance imaging
NTDS	National Trauma Data Standard
OPO	Organ Procurement Organization
OR	Operating Room
OTR	Ohio Trauma Registry
PT	Prothrombin time
PTT	Partial thromboplastin time
PVD	Peripheral vascular disease
SaO ₂	Saturation of oxygen in arterial blood
TACR	Trauma Acute Care Registry
UB-04	Uniform Billing Form-04
XSD	XML (Extensible Markup Language) Schema definition

CHANGE LOG

September and October, 2017

Field Name	Change Location	Change Text
INCLUSION CRITERIA	Patient Inclusion Criteria	Added additional O codes
INCLUSION CRITERIA	Patient Inclusion Criteria bullets: J70.5, T33, T34, T67, T68, T69, T70.4, T70.8, T70.9, T71, T74.1, T74.4, T75.0, T75.1, and T75.4	Added: with 7 th character modifier of A ONLY – initial encounter
INCLUSION CRITERIA	Patient Inclusion Criteria T75.0	Removed: (Other and unspecified effects of other external causes)
INCLUSION CRITERIA	Patient Inclusion Criteria T75.0	Added: (Effects of lightning)
MULTIPLE	Throughout Entire Document	Made minor spelling, grammar, and formatting corrections
MULTIPLE	References to Other Databases	Removed all references to NHTSA
ALTERNATE HOME RESIDENCE	Additional Information	Removed: <i>Foreign Visitor</i> is defined as any person visiting a country other than his/her usual place of residence for any reason
TRANSPORT MODE FOR ARRIVAL AT YOUR HOSPITAL	Additional Information	Added: “/in-house patient” right after visitor in the third bullet
TRANSPORT AGENCY	References to Other Databases	Added: Not an NTDS Field
ED DISCHARGE ORDER WRITTEN DATE	References to Other Databases	Added: Not an NTDS Field
ED DISCHARGE ORDER WRITTEN TIME	References to Other Databases	Added: Not an NTDS Field
ED TRANSFER TO HOSPITAL	References to Other Databases	Added: Not an NTDS Field
PROCEDURE LOCATION	Data Field	Removed completely

DNR STATUS	Additional Information	Added another bullet that states: Until DNR status is documented, the patient is considered to be “not a DNR patient”
DNR STATUS	References to Other Databases	Added: Not an NTDS Field
AIS SEVERITY	Field Values	Changed 7 to a 9 to match NTDB
AIS SEVERITY	Additional Information	Changed 7 to a 9 to match NTDB
INJURY SEVERITY SCORE	References to Other Databases	Added: Not an NTDS Field
HOSPITAL DISCHARGE ORDER WRITTEN DATE	References to Other Databases	Added: Not an NTDS Field
HOSPITAL DISCHARGE ORDER WRITTEN TIME	References to Other Databases	Added: Not an NTDS Field
DISCHARGE STATUS	References to Other Databases	Added: Not an NTDS Field
DATE OF DEATH	References to Other Databases	Added: Not an NTDS Field
TIME OF DEATH	References to Other Databases	Added: Not an NTDS Field
PRIMARY METHOD OF PAYMENT	Additional Information	Removed: CHAMPUS because it is the same as TRICARE
PRIMARY METHOD OF PAYMENT	Additional Information	Added: Health Resources Services Administration (HRSA) as other government payment source
AUTOPSY PERFORMED	References to Other Databases	Added: Not an NTDS Field
APPENDIX C	Alcohol use disorder	Removed: Always use the most recent definition provided by the APA
APPENDIX C	Angina Pectoris	Removed: Always use the most recent definition provided by the AHA
APPENDIX C	Bleeding disorder	Removed: Always use the most recent definition provided by the American Society of Hematology
APPENDIX C	Chronic Obstructive Pulmonary Disease (COPD)	Removed: Always use the most recent definition provided by the WHO

APPENDIX C	Mental/Personality Disorder	Removed: Always use the most recent definition provided by the APA
APPENDIX C	Peripheral Arterial Disease (PAD)	Removed: Always use the most recent definition provided by the CDC
APPENDIX C	Substance Abuse Disorder	Removed: Always use the most recent definition provided by the APA
APPENDIX D	Acute Kidney Injury	Removed: Always use the most recent definition provided by the KDIGO
APPENDIX D	Catheter-Associated Urinary Tract Infection (UTI)	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	January 2016 CDC CAUTI Criterion SUTI 2, number 2	Added a bullet: Vomiting with no other recognized cause
APPENDIX D	Catheter-Related Blood Stream Infection	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	January 2016 CDC Criterion LCBI 2	Changed the third bullet to read: Hypotension instead of Hypertension
APPENDIX D	Deep surgical site infection	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	Organ/space surgical site infection	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	Osteomyelitis	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	Pressure Ulcer	Removed: Always use the most recent definition provided by the NPUAP
APPENDIX D	Severe sepsis	Removed: Always use the most recent definition provided by the American College of Chest Physicians and the Society of Critical Care Medicine
APPENDIX D	Superficial Incisional surgical site infection	Added the word Incisional between Superficial and surgical
APPENDIX D	Superficial Incisional surgical site infection	Removed: Always use the most recent definition provided by the CDC
APPENDIX D	Ventilator-Associated Pneumonia (VAP)	Removed: Always use the most recent definition provided by the CDC
APPENDIX F	Glossary of Abbreviations	Removed: NHTSA National Highway Traffic Safety Administration