NATIONAL TRAUMA DATA STANDARD

# DATA DICTIONARY

## 2018 ADMISSIONS

THE COMMITTEE ON TRAUMA

AMERICAN COLLEGE OF SURGEONS
*Inspiring Quality:*
*Highest Standards, Better Outcomes*
100+years

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## Introduction

Traumatic injury, both unintentional and intentional, is the leading cause of death in the first four decades of life, according to the National Center for Health Statistics.[1] Trauma typically involves young adults and results in the loss of more productive work years than both cancer and heart disease combined.[2] Each year, more than 140,000 Americans die and approximately 80,000 are permanently disabled as a result of injury.[3] The loss of productivity and health care costs account for 100 billion dollars annually.[4]

Research provides evidence of the effectiveness of trauma and EMS systems in reducing mortality, morbidity, and lost productivity from traumatic injuries. Almost three decades of research consistently suggests that in-hospital (and post-discharge) mortality rates are reduced by 20 to 25% among severely injured patients treated in trauma centers organized into a regional or statewide trauma system.[5-9] Nevertheless, much of the work investigating the effectiveness of trauma system (center) development has been hampered by the lack of consistent, quality data to demonstrate differences in mortality over time or between hospitals, regions, or states.

Hospital-based trauma registries are the basis for much of the research and quality assessment work that has informed clinicians and policy makers about methods to optimize the care of injured patients. Yet, the actual data points contained in independent hospital registries are often so different in content and structure that comparison across registries is nearly impossible.[10] Database construction for trauma registries is often completed in isolation with no nationally recognized standard data dictionary to ensure consistency across registries. Efforts to standardize hospital registry content have been published[11,12], yet studies continue to document serious variation and misclassification between hospital-based registries.[13,14]

Recently, federal agencies have made investments to fortify the establishment of a national trauma registry.[15,16] Much of this funding has focused on the National Trauma Data Standard™(NTDS), which represents a concerted and sustained effort by the American College of Surgeons Committee on Trauma (ACSCOT) to provide an extensive collection of trauma registry data provided primarily by accredited/designated trauma centers across the U.S.[17] Members of ACSCOT and staff associated with the NTDB have long recognized that the NTDB inherits the individual weaknesses of each contributing registry.[18]

During 2004 through 2006, the ACSCOT Subcommittee on Trauma Registry Programs was supported by the U.S. Health Resources and Services Administration (HRSA) to devise a uniform set of trauma registry variables and associated variable definitions. The ACSCOT Subcommittee also characterized a core set of trauma registry inclusion criteria that would maximize participation by all state, regional and local trauma registries. This data dictionary represents the culmination of this work. Institutionalizing the basic standards provided in this document will greatly increase the likelihood that a national trauma registry would provide clinical information beneficial in characterizing traumatic injury and enhancing our ability to improve trauma care in the United States.

To realize this objective, it is important that this subset of uniform registry variables are incorporated into all trauma registries, regardless of trauma center accreditation/designation (or lack

thereof). Local, regional or state registries are then encouraged to provide a yearly download of these uniform variables to the NTDB for all patients satisfying the inclusion criteria described in this document. This subset of variables, for all registries, will represent the contents of the new National Trauma Data Bank (NTDB) in the future.

## Technical Notes Regarding NTDS Implementation

The NTDS Dictionary is designed to establish a national standard for the exchange of trauma registry data, and to serve as the operational definitions for the National Trauma Data Bank (NTDB). It is expected (and encouraged) that local and state trauma registry committees will move towards extending and/or modifying their registries to adopt NTDS-based definitions. However, it is also recognized that many local and state trauma registry data sets will contain additional data points as well as additional response codes beyond those captured in NTDS. It is important to note that systems that deviate from NTDS can be fully compliant with NTDS via the development of a "mapping" process provided by their vendor which maps each variable (and response code) in the registry to the appropriate NTDS variable (and response code).

There are numerous ways in which mapping may allow variations in hospital or state data sets to conform to the NTDS data fields:

1. Additional response codes for a variable (for example, source of payment) may be collected, but then collapsed (i.e., mapped) into existing NTDS response codes when data are submitted to the NTDB.
2. A local or state registry may collect both a “patient’s home city” and “patient’s home ZIP code,” but the NTDS requires one or the other. A mapping program may ensure only one variable is submitted to the NTDB.

In sum, the NTDS Data Dictionary provides the exact standard for submission of trauma registry data to the NTDB. This standard may be accomplished through abstraction precisely as described in this document, or through mapping provided by a vendor. *If variables are mapped, trauma managers/registrars should consult with their vendor to ensure that the mapping is accurate*. In addition, if variables are mapped, it is important that a registrar abstract data as described by the vendor to ensure the vendor-supplied NTDS mapping works properly to enforce the exact rules outlined in the NTDS data dictionary.

The benefits of having a national trauma registry standard that can support comparative analyses across all facilities are enormous. The combination of having the NTDS standard as well as vendor- supplied mappings (to support that standard) will allow local and state registry data sets to include individualized detail while still maintaining compatibility with the NTDS national standard.

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## National Trauma Data Standard Patient Inclusion Criteria

**Definition:**

To ensure consistent data collection across States into the National Trauma Data Standard, a trauma patient is defined as a patient sustaining a traumatic injury and meeting the following criteria:

***At least one*** of the following injury diagnostic codes defined as follows:

***International Classification of Diseases, Tenth Revision (ICD-10-CM):***

***S00-S99 with 7th character modifiers 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 specific body parts – initial encounter)*
***T30-T32*** *(burn by TBSA percentages)*
***T79.A1-T79.A9 with 7th character modifier of A ONLY*** *(Traumatic Compartment Syndrome – initial encounter)*

**Excluding the following isolated injuries:**

***ICD-10-CM:***

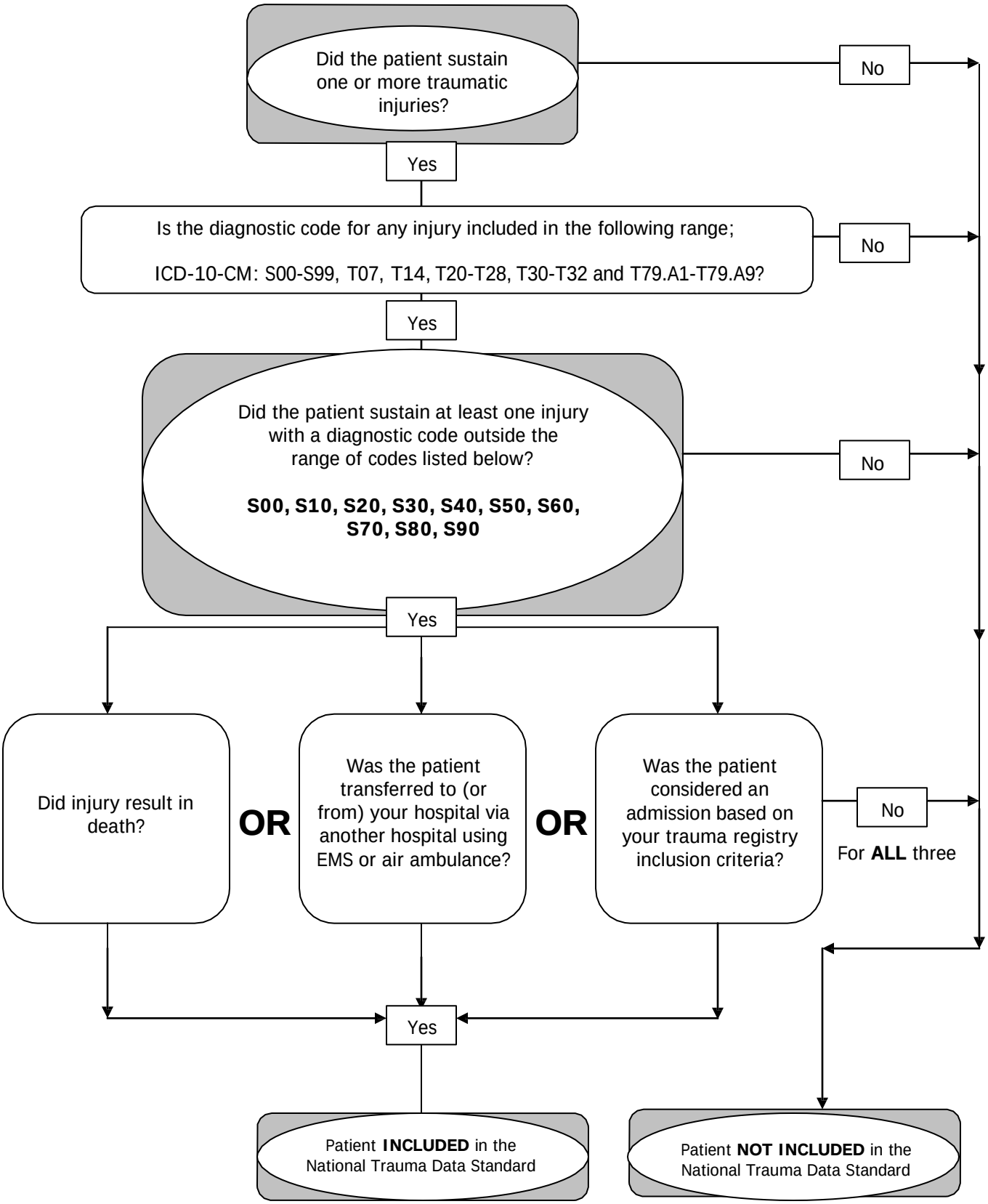
***S00*** *(Superficial injuries of the head)*
***S10*** *(Superficial injuries of the neck)*
***S20*** *(Superficial injuries of the thorax)*
***S30*** *(Superficial injuries of the abdomen, pelvis, lower back and external genitals)*
***S40*** *(Superficial injuries of shoulder and upper arm)*
***S50*** *(Superficial injuries of elbow and forearm)*
***S60*** *(Superficial injuries of wrist, hand and fingers)*
***S70*** *(Superficial injuries of hip and thigh)*
***S80*** *(Superficial injuries of knee and lower leg)*
***S90*** *(Superficial injuries of ankle, foot and toes)*

**Late effect codes, which are represented using the same range of injury diagnosis codes but with the 7th digit modifier code of D through S, are also excluded.**

***AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO (ICD-10-CM S00-S99, T07, T14, T20-T28, T30-T32 and T79.A1-T79.A9):***

- Hospital admission as defined by your trauma registry inclusion criteria; OR
- Patient transfer via EMS transport (including air ambulance) from one hospital to another hospital; OR
- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)

## National Trauma Data Standard Inclusion Criteria



## COMMON NULL VALUES

**Definition**
These values are to be used with each of the National Trauma Data Standard Data Elements described in this document which have been defined to accept the Null Values.

**Field Values**
1 Not Applicable

2 Not Known/Not Recorded

**Additional Information**

- 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 National Trauma Data Standard are to be electronically stored in a database or moved from one database to another using XML, the indicated null values should be applied.

- *Not Applicable (NA)*: This null value code applies if, at the time of patient care documentation, the information requested was "Not Applicable" to the patient, the hospitalization or the patient care event. For example, variables documenting EMS care would be "Not Applicable" if a patient self- transports to the hospital.

- *Not Known/Not Recorded (NK/NR):* This null value applies if, at the time of patient care documentation, information was "Not Known" (to the patient, family, health care provider) or no value for the element was recorded for the patient. This documents that there was an attempt to obtain information but it was unknown by all parties or the information was missing at the time of documentation. For example, injury date and time may be documented in the hospital patient care report as "Unknown." Another example, Not Known/Not Recorded should also be coded when documentation was expected, but none was provided (i.e., no EMS run sheet in the hospital record for patient transported by EMS).

**References to Other Databases**

- Compare with NHTSA V.2.10 - E00

# Demographic Information

D_01

## PATIENT'S HOME ZIP/POSTAL CODE

### Definition

The patient's home ZIP/Postal code of primary residence.

### Field Values

- Relevant value for data element

### Additional Information

- Can be stored as a 5 or 9 digit code (XXXXX-XXXX) for US and CA, or can be stored in the postal code format of the applicable country.
- May require adherence to HIPAA regulations.
- If ZIP/Postal code is "Not Applicable," complete variable: Alternate Home Residence.
- If ZIP/Postal code is "Not Known/Not Recorded," complete variables: Patient's Home Country, Patient's Home State (US only), Patient's Home County (US only) and Patient's Home City (US only).
- If ZIP/Postal code is reported, must also complete Patient's Home Country.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0001 | 1 | Invalid value |
| 0002 | 2 | Field cannot be blank |

D_02

## PATIENT'S HOME COUNTRY

### Definition

The country where the patient resides.

### Field Values

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

### Additional Information

- Values are two character FIPS codes representing the country (e.g., US).
- If Patient's Home Country is not US, then the null value "Not Applicable" is used for: Patient's Home State, Patient's Home County, and Patient's Home City.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0101 | 1 | Invalid value |
| 0102 | 2 | Field cannot be blank |
| 0104 | 2 | Field cannot be Not Applicable |
| 0105 | 2 | Field cannot be "Not Known/Not Recorded" when Home ZIP/Postal Code is not "Not Applicable" or "Not Known/Not Recorded" |

D_03

## PATIENT'S HOME STATE

### Definition

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

### Field Values

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

### Additional Information

- Only completed when ZIP/Postal code is "Not Known/Not Recorded" and country is US.
- Used to calculate FIPS code.
- The null value "Not Applicable" is used if Patient's Home ZIP/Postal Code is reported.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0201 | 1 | Invalid value (US only) |
| 0202 | 2 | Field cannot be blank (US only) |
| 0204 | 2 | Field must be Not Applicable (Non-US) |

D_04

## PATIENT'S HOME COUNTY

### Definition

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

### Field Values

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

### Additional Information

- Only completed when ZIP/Postal code is "Not Known/Not Recorded" and country is US.
- Used to calculate FIPS code.
- The null value "Not Applicable" is used if Patient's Home ZIP/Postal Code is reported.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0301 | 1 | Invalid value (US only) |
| 0302 | 2 | Field cannot be blank (US only) |
| 0304 | 2 | Field must be Not Applicable (Non-US) |

D_05

## PATIENT'S HOME CITY

### Definition

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

### Field Values

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

### Additional Information

- Only completed when ZIP/Postal code is "Not Known/Not Recorded" and country is US.
- Used to calculate FIPS code.
- The null value "Not Applicable" is used if Patient's Home ZIP/Postal Code is reported.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0401 | 1 | Invalid value (US only) |
| 0402 | 2 | Field cannot be blank (US only) |
| 0404 | 2 | Field must be Not Applicable (Non-US) |

D_06

## ALTERNATE HOME RESIDENCE

### Definition

Documentation of the type of patient without a home ZIP/Postal Code.

### Field Values

1. Homeless
2. Undocumented Citizen
3. Migrant Worker

### Additional Information

- Only completed when ZIP/Postal code is "Not Applicable."
- Homeless is defined as a person who lacks housing. The definition also includes a person living in transitional housing or a supervised public or private facility providing temporary living quarters.
- Undocumented Citizen is defined as a national of another country who has entered or stayed in another country without permission.
- Migrant Worker is defined as a person who temporarily leaves his/her principal place of residence within a country in order to accept seasonal employment in the same or different country.
- The null value "Not Applicable" is used if Patient's Home ZIP/Postal Code is reported.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0501 | 1 | Value is not a valid menu option |
| 0502 | 2 | Field cannot be blank |

D_07

## DATE OF BIRTH

### Definition
The patient's date of birth.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- If Date of Birth is “Not Known/Not Recorded”, complete variables: Age and Age Units.
- If Date of Birth equals Injury Date, then the Age and Age Units variables must be completed.
- Used to calculate patient age in minutes, hours, days, months, or years.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0601 | 1 | Invalid value |
| 0602 | 1 | Date out of range |
| 0603 | 2 | Field cannot be blank |
| 0605 | 3 | Field should not be Not Known/Not Recorded |
| 0606 | 2 | Date of Birth is later than EMS Dispatch Date |
| 0607 | 2 | Date of Birth is later than EMS Unit Arrival on Scene Date |
| 0608 | 2 | Date of Birth is later than EMS Unit Scene Departure Date |
| 0609 | 2 | Date of Birth is later than Injury Date |
| 0610 | 2 | Date of Birth is later than ED Discharge Date |
| 0611 | 2 | Date of Birth is later than Hospital Discharge Date |
| 0612 | 2 | Date of Birth + 120 years must be less than Injury Date |
| 0613 | 2 | Field cannot be Not Applicable |

D_08

## AGE

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- Used to calculate patient age in minutes, hours, days, months, or years.
- If Date of Birth is “Not Known/Not Recorded”, complete variables: Age and Age Units.
- If Date of Birth equals ED/Hospital Arrival Date, then the Age and Age Units variables must be completed.
- Must also complete variable: Age Units.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0701 | 1 | Age is outside the valid range of 0 - 120 |
| 0703 | 2 | Field cannot be blank |
| 0704 | 3 | Injury Date minus Date of Birth should equal submitted Age as expressed in the Age Units specified. |
| 0705 | 4 | Age is greater than expected for the Age Units specified. Age should not exceed 60 minutes, 24 hours, 30 days, 24 months, or 120 years. Please verify this is correct. |
| 0707 | 2 | Field must be Not Applicable when Age Units is Not Applicable |
| 0708 | 2 | Field must be Not Known/Not Recorded when Age Units is Not Known/Not Recorded |

D_09

## AGE UNITS

### Definition

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

### Field Values

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

### Additional Information

- Used to calculate patient age in minutes, hours, days, months, or years.
- If Date of Birth is “Not Known/Not Recorded”, complete variables: Age and Age Units.
- If Date of Birth equals ED/Hospital Arrival Date, then the Age and Age Units variables must be completed.
- Must also complete variable: Age.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0801 | 1 | Value is not a valid menu option |
| 0803 | 2 | Field cannot be blank |
| 0805 | 2 | Field must be Not Applicable when Age is Not Applicable |
| 0806 | 2 | Field must be Not Known/Not Recorded when Age is Not Known/Not Recorded |

D_10

## RACE

### Definition

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

### 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. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. EMS Run Report
6. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 0901 | 1 | Value is not a valid menu option |
| 0902 | 2 | Field cannot be blank |
| 0903 | 2 | Field cannot be Not Applicable (US only) |
| 0904 | 2 | Field must be Not Applicable (non-US) |

D_11

## ETHNICITY

### Definition
The patient's ethnicity.

### Field Values
1. Hispanic or Latino
2. Not Hispanic or Latino

### Additional Information

- Patient ethnicity should be based upon self-report or identified by a family member.
- The maximum number of ethnicities that may be reported for an individual patient is 1.
- Based on the 2010 US Census Bureau.

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. History & Physical
6. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1001 | 1 | Value is not a valid menu option |
| 1002 | 2 | Field cannot be blank |
| 1003 | 2 | Field cannot be Not Applicable (US only) |
| 1004 | 2 | Field must be Not Applicable (non-US) |

D_12

## SEX

### Definition
The patient's sex.

### Field Values
1. Male
2. Female

### Additional Information

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

### Data Source Hierarchy Guide

1. Face Sheet
2. Billing Sheet
3. Admission Form
4. Triage/Trauma Flow Sheet
5. EMS Run Report
6. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1101 | 1 | Value is not a valid menu option |
| 1102 | 2 | Field cannot be blank |
| 1103 | 2 | Field cannot be Not Applicable |

# Injury Information

I_01

## INJURY INCIDENT DATE

### Definition

The date the injury occurred.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Estimates of date of injury should be based upon report by patient, witness, family, or healthcare provider. Other proxy measures (e.g., 911 call times) should not be used.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. History & Physical
4. Face Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1201 | 1 | Date is not valid |
| 1202 | 1 | Date out of range |
| 1203 | 2 | Field cannot be blank |
| 1204 | 4 | Injury Incident Date is earlier than Date of Birth |
| 1205 | 4 | Injury Incident Date is later than EMS Dispatch Date |
| 1206 | 4 | Injury Incident Date is later than EMS Unit Arrival on Scene Date |
| 1207 | 4 | Injury Incident Date is later than EMS Unit Scene Departure Date |
| 1208 | 4 | Injury Incident Date is later than ED/Hospital Arrival Date |
| 1209 | 4 | Injury Incident Date is later than ED Discharge Date |
| 1210 | 4 | Injury Incident Date is later than Hospital Discharge Date |
| 1211 | 2 | Field cannot be Not Applicable |

I_02

## INJURY INCIDENT TIME

### Definition
The time the injury occurred.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- 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 times) should not be used.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. History & Physical
4. Face Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1301 | 1 | Time is not valid |
| 1302 | 1 | Time out of range |
| 1303 | 2 | Field cannot be blank |
| 1304 | 4 | Injury Incident Time is later than EMS Dispatch Time |
| 1305 | 4 | Injury Incident Time is later than EMS Unit Arrival on Scene Time |
| 1306 | 4 | Injury Incident Time is later than EMS Unit Scene Departure Time |
| 1307 | 4 | Injury Incident Time is later than ED/Hospital Arrival Time |
| 1308 | 4 | Injury Incident Time is later than ED Discharge Time |
| 1309 | 4 | Injury Incident Time is later than Hospital Discharge Time |
| 1310 | 2 | Field cannot be Not Applicable |

I_03

## WORK-RELATED

### Definition
Indication of whether the injury occurred during paid employment.

### Field Values
1. Yes
2. No

### 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 Report
2. Triage/Trauma Flow Sheet
3. History & Physical
4. Face Sheet
5. Billing Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1401 | 1 | Value is not a valid menu option |
| 1402 | 2 | Field cannot be blank |
| 1405 | 4 | Work-Related should be 1 (Yes) when Patient's Occupation is not "Not Applicable" or "Not Known/Not Recorded" |
| 1406 | 4 | Work-Related should be 1 (Yes) when Patient's Occupational Industry is not "Not Applicable" or "Not Known/Not Recorded" |
| 1407 | 2 | Field cannot be Not Applicable |

I_04

## PATIENT'S OCCUPATIONAL INDUSTRY

### Definition

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

### Field Values

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

### Additional Information

- If work related, also complete Patient's Occupation.
- Based upon US Bureau of Labor Statistics Industry Classification.
- The null value "Not Applicable" is used if Work Related is 2. No.

### Data Source Hierarchy Guide

1. Billing Sheet
2. Face Sheet
3. Case Management/Social Services Notes
4. EMS Run Report
5. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1501 | 1 | Value is not a valid menu option |
| 1504 | 2 | Field cannot be blank |

I_05

## PATIENT'S OCCUPATION

### Definition

The occupation of the patient.

### Field Values

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

### Additional Information

- Only completed if injury is work-related.
- If work related, also complete Patient's Occupational Industry.
- Based upon 1999 US Bureau of Labor Statistics Standard Occupational Classification (SOC).
- The null value "Not Applicable" is used if Work Related is 2. No.

### Data Source Hierarchy Guide

1. Billing Sheet
2. Face Sheet
3. Case Management/Social Services Notes
4. EMS Run Report
5. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 1601 | 1 | Value is not a valid menu option |
| 1604 | 2 | Field cannot be blank |

## ICD-10 PRIMARY EXTERNAL CAUSE CODE

I_06

### Definition

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

### Field Values

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

### Additional Information

- The primary external cause code should describe the main reason a patient is admitted to the hospital.
- External cause codes are used to auto-generate two calculated fields: Trauma Type (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix).
- ICD-10-CM codes will be accepted for this data element. Activity codes should not be reported in this field.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical
5. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8901 | 1 | E-Code is not a valid ICD-10-CM code (ICD-10 CM only) |
| 8902 | 2 | Field cannot be blank |
| 8904 | 2 | Should not be Y92.X/Y92.XX/Y92.XXX (where X is A-Z or 0-9) (ICD-10 CM only) |
| 8905 | 3 | ICD-10 External Cause Code should not be Y93.X/Y93.XX (where X is A-Z or 0-9) (ICD-10 CM only) |
| 8906 | 1 | E-Code is not a valid ICD-10-CA code (ICD-10 CA only) |
| 8907 | 2 | Field cannot be Not Applicable |

## ICD-10 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE

I_07

### Definition

Place of occurrence external cause code used to describe the place/site/location of the injury event (Y92.x).

### Field Values

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

### 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 cause 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 accidents 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 Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical
5. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9001 | 1 | Invalid value (ICD-10 CM only) |
| 9002 | 2 | Field cannot be blank |
| 9003 | 3 | Place of Injury code should be Y92.X/Y92.XX/Y92.XXX (where X is A-Z [excluding I,O] or 0-9) (ICD-10 CM only) |
| 9004 | 1 | Invalid value (ICD-10 CA only) |
| 9005 | 3 | Place of Injury code should be U98X (where X is 0-9) (ICD-10 CA only) |
| 9006 | 2 | Field cannot be Not Applicable |

## ICD-10 ADDITIONAL EXTERNAL CAUSE CODE

I_08

### Definition

Additional External Cause Code used in conjunction with the Primary External Cause Code if multiple external cause codes are required to describe the injury event.

### Field Values

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

### Additional Information

- External cause codes are used to auto-generate two calculated fields: Trauma Type: (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix).
- Only ICD-10-CM codes will be accepted for ICD-10 Additional External Cause Code.
- Activity codes should not be reported in this field.
- The null value "Not Applicable" is used if no additional external cause codes are used.
- 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 cause 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 accidents 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 Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical
5. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9101 | 1 | E-Code is not a valid ICD-10-CM code (ICD-10 CM only) |
| 9102 | 4 | Additional External Cause Code ICD-10 should not be equal to Primary External Cause Code ICD-10 |
| 9103 | 2 | Field cannot be blank |
| 9104 | 1 | E-Code is not a valid ICD-10-CA code (ICD-10 CA only) |

## INCIDENT LOCATION ZIP/POSTAL CODE

I_09

### Definition

The ZIP/Postal code of the incident location.

### Field Values

- Relevant value for data element

### Additional Information

- Can be stored as a 5 or 9 digit code (XXXXX-XXXX) for US and CA, or can be stored in the postal code format of the applicable country.
- If "Not Known/Not Recorded," complete variables: Incident Country, Incident State (US Only), Incident County (US Only) and Incident City (US Only).
- May require adherence to HIPAA regulations.
- If ZIP/Postal code is reported, then must complete Incident Country.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2001 | 1 | Invalid value |
| 2002 | 2 | Field cannot be blank |
| 2006 | 2 | Field cannot be Not Applicable |

## INCIDENT COUNTRY

I_10

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

### Field Values

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

### Additional Information

- Values are two character FIPS codes representing the country (e.g., US).
- If Incident Country is not US, then the null value "Not Applicable" is used for: Incident State, Incident County, and Incident Home City.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2101 | 1 | Invalid value |
| 2102 | 2 | Field cannot be blank |
| 2104 | 2 | Field cannot be Not Applicable |
| 2105 | 2 | Field cannot be "Not Known/Not Recorded" when Incident Location ZIP/Postal Code is not "Not Known/Not Recorded" |

I_11

## INCIDENT STATE

### Definition

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

### Field Values

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

### Additional Information

- Only completed when Incident Location ZIP/Postal Code is "Not Known/Not Recorded", and country is US.
- Used to calculate FIPS code.
- The null value "Not Applicable" is used if Incident Location ZIP/Postal Code is reported.
- If Incident Country is not US, report the null value "Not Applicable".

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2201 | 1 | Invalid value (US only) |
| 2203 | 2 | Field cannot be blank |
| 2204 | 2 | Field must be Not Applicable (Non-US) |

I_12

## INCIDENT COUNTY

### Definition

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

### Field Values

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

### Additional Information

- Only completed when Incident Location ZIP/Postal Code is "Not Known/Not Recorded", and country is US.
- Used to calculate FIPS code.
- The null value "Not Applicable" is used if Incident Location ZIP/Postal Code is reported.
- If Incident Country is not US, report the null value "Not Applicable".

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2301 | 1 | Invalid value (US only) |
| 2303 | 2 | Field cannot be blank |
| 2304 | 2 | Field must be Not Applicable (Non-US) |

I_13

## INCIDENT CITY

### Definition

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

### Field Values

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

### Additional Information

- Only completed when Incident Location ZIP/Postal Code is "Not Known/Not Recorded", and country is US.
- Used to calculate FIPS code.
- If incident location resides outside of formal city boundaries, report nearest city/town.
- The null value "Not Applicable" is used if Incident Location ZIP/Postal Code is reported.
- If Incident Country is not US, report the null value "Not Applicable".

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2401 | 1 | Invalid value (US only) |
| 2403 | 2 | Field cannot be blank |
| 2404 | 2 | Field must be Not Applicable (Non-US) |

I_14

## PROTECTIVE DEVICES

### Definition

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

### Field Values

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

### 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 "3-point-restraint", choose 2. Lap Belt and 10. Shoulder Belt.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2501 | 1 | Value is not a valid menu option |
| 2502 | 2 | Field cannot be blank |
| 2505 | 3 | Protective Device should be 6 (Child Restraint) when Child Specific Restraint is not "Not Applicable" or "Not Known/Not Recorded" |
| 2506 | 3 | Protective Device should be 8 (Airbag Present) when Airbag Deployment is not "Not Applicable" or "Not Known/Not Recorded" |
| 2507 | 2 | Field cannot be Not Applicable |

I_15

## CHILD SPECIFIC RESTRAINT

### Definition

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

### Field Values

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

### Additional Information

- Evidence of the use of child restraint may be reported or observed.
- Only completed when Protective Devices include "6. Child Restraint (booster seat or child car seat)."
- The null value "Not Applicable" is used if no "Child Restraint" is reported under Protective Devices.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2601 | 1 | Value is not a valid menu option |
| 2603 | 2 | Field cannot be blank |
| 2604 | 2 | Field cannot be Not Applicable when Protective Device is 6 (Child Restraint) |

## AIRBAG DEPLOYMENT

### Definition

Indication of airbag deployment 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.)

### Additional Information

- 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."
- Airbag Deployed Front should be used for patients with documented airbag deployments, but are not further specified.
- The null value "Not Applicable" is used if no "Airbag Present" is reported under Protective Devices.

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. Nursing Notes/Flow Sheet
4. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2701 | 1 | Value is not a valid menu option |
| 2703 | 2 | Field cannot be blank |
| 2704 | 2 | Field cannot be Not Applicable when Protective Device is 8 (Airbag Present) |

I_17

## REPORT OF PHYSICAL ABUSE

### Definition

A report of suspected physical abuse was made to law enforcement and/or protective services.

### Field Values

1. Yes
2. No

### Additional Information

- This includes, but is not limited to, a report of child, elder, spouse or intimate partner physical abuse.

### Data Source Hierarchy Guide

1. Case Management/Social Service Notes
2. ED Records
3. Progress Notes
4. Discharge Summary
5. History & Physical
6. Nursing Notes/Flow Sheet
7. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9201 | 1 | Value is not a valid menu option |
| 9202 | 2 | Field cannot be Not Applicable |
| 9203 | 2 | Field cannot be blank |

I_18

## INVESTIGATION OF PHYSICAL ABUSE

### Definition

An investigation by law enforcement and/or protective services was initiated because of the suspected physical abuse.

### Field Values

1. Yes
2. No

### Additional Information

- This includes, but is not limited to, a report of child, elder, spouse or intimate partner physical abuse.
- Only complete when Report of Physical Abuse is 1. Yes.
- The null value "Not Applicable" should be used for patients where Report of Physical Abuse is 2. No.

### Data Source Hierarchy Guide

1. Case Management/Social Service Notes
2. ED Records
3. Progress Notes
4. Discharge Summary
5. History & Physical
6. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9301 | 1 | Value is not a valid menu option |
| 9302 | 2 | Field cannot be blank |
| 9303 | 3 | Field should not be Not Applicable when Report of Physical Abuse = 1 (Yes) |

I_19

## CAREGIVER AT DISCHARGE

### Definition

The patient was discharged to a caregiver different than the caregiver at admission due to suspected physical abuse.

### Field Values

1. Yes
2. No

### Additional Information

- Only complete when Report of Physical Abuse is 1. Yes.
- Only complete for minors as determined by state/local definition, excluding emancipated minors.
- The null value "Not Applicable" should be used for patients where Report of Physical Abuse is 2. No or where older than the state/local age definition of a minor.
- The null value “Not Applicable” should be used if the patient expires prior to discharge.

### Data Source Hierarchy Guide

1. Case Management/Social Services Notes
2. Discharge Summary
3. Nursing Notes/Flow Sheet
4. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9401 | 1 | Value is not a valid menu option |
| 9402 | 2 | Field cannot be blank |

# Pre-hospital Information

P_01

## EMS DISPATCH DATE

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Used to auto-generate an additional calculated field: Total EMS Time (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.
- 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.
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2801 | 1 | Date is not valid |
| 2802 | 1 | Date out of range |
| 2803 | 3 | EMS Dispatch Date is earlier than Date of Birth |
| 2804 | 4 | EMS Dispatch Date is later than EMS Unit Arrival on Scene Date |
| 2805 | 4 | EMS Dispatch Date is later than EMS Unit Scene Departure Date |
| 2806 | 3 | EMS Dispatch Date is later than ED/Hospital Arrival Date |
| 2807 | 4 | EMS Dispatch Date is later than ED Discharge Date |
| 2808 | 3 | EMS Dispatch Date is later than Hospital Discharge Date |
| 2809 | 2 | Field cannot be blank |

P_02

## EMS DISPATCH TIME

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Used to auto-generate an additional calculated field: Total EMS Time (elapsed time from EMS dispatch to hospital arrival).
- 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.
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 2901 | 1 | Time is not valid |
| 2902 | 1 | Time out of range |
| 2903 | 4 | EMS Dispatch Time is later than EMS Unit Arrival on Scene Time |
| 2904 | 4 | EMS Dispatch Time is later than EMS Unit Scene Departure Time |
| 2905 | 4 | EMS Dispatch Time is later than ED/Hospital Arrival Time |
| 2906 | 4 | EMS Dispatch Time is later than ED Discharge Time |
| 2907 | 4 | EMS Dispatch Time is later than Hospital Discharge Time |
| 2908 | 2 | Field cannot be blank |

## EMS UNIT ARRIVAL DATE AT SCENE OR TRANSFERRING FACILITY

P_03

### Definition

The date the unit transporting to your hospital arrived on the scene/transferring facility.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Used to auto-generate two additional calculated fields: Total EMS Response Time (elapsed time from EMS dispatch to scene arrival) and Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).
- 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).
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3001 | 1 | Date is not valid |
| 3002 | 1 | Date out of range |
| 3003 | 3 | EMS Unit Arrival on Scene Date is earlier than Date of Birth |
| 3004 | 4 | EMS Unit Arrival on Scene Date is earlier than EMS Dispatch Date |
| 3005 | 4 | EMS Unit Arrival on Scene Date is later than EMS Unit Scene Departure Date |
| 3006 | 3 | EMS Unit Arrival on Scene Date is later than ED/Hospital Arrival Date |
| 3007 | 4 | EMS Unit Arrival on Scene Date is later than ED Discharge Date |
| 3008 | 3 | EMS Unit Arrival on Scene Date is later than Hospital Discharge Date |
| 3009 | 3 | EMS Unit Arrival on Scene Date minus EMS Dispatch Date is greater than 7 days |
| 3010 | 2 | Field cannot be blank |

## EMS UNIT ARRIVAL TIME AT SCENE OR TRANSFERRING FACILITY

P_04

### Definition

The time the unit transporting to your hospital arrived on the scene/transferring facility.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Used to auto-generate two additional calculated fields: Total EMS Response Time (elapsed time from EMS dispatch to scene arrival) and Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).
- 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).
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3101 | 1 | Time is not valid |
| 3102 | 1 | Time out of range |
| 3103 | 4 | EMS Unit Arrival on Scene Time is earlier than EMS Dispatch Time |
| 3104 | 4 | EMS Unit Arrival on Scene Time is later than EMS Unit Scene Departure Time |
| 3105 | 4 | EMS Unit Arrival on Scene Time is later than ED/Hospital Arrival Time |
| 3106 | 4 | EMS Unit Arrival on Scene Time is later than ED Discharge Time |
| 3107 | 4 | EMS Unit Arrival on Scene Time is later than Hospital Discharge Time |
| 3108 | 2 | Field cannot be blank |

## EMS UNIT DEPARTURE DATE FROM SCENE OR TRANSFERRING FACILITY

P_05

### Definition

The date the unit transporting to your hospital left the scene/transferring facility.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Used to auto-generate an additional calculated field: Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).
- 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 (departure is defined at date/time when the vehicle started moving).
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3201 | 1 | Date is not valid |
| 3202 | 1 | Date out of range |
| 3203 | 3 | EMS Unit Scene Departure Date is earlier than Date of Birth |
| 3204 | 4 | EMS Unit Scene Departure Date is earlier than EMS Dispatch Date |
| 3205 | 4 | EMS Unit Scene Departure Date is earlier than EMS Unit Arrival on Scene Date |
| 3206 | 3 | EMS Unit Scene Departure Date is later than ED/Hospital Arrival Date |
| 3207 | 4 | EMS Unit Scene Departure Date is later than ED Discharge Date |
| 3208 | 3 | EMS Unit Scene Departure Date is later than Hospital Discharge Date |
| 3209 | 3 | EMS Unit Scene Departure Date minus EMS Unit Arrival on Scene Date is greater than 7 days |
| 3210 | 2 | Field cannot be blank |

## EMS UNIT DEPARTURE TIME FROM SCENE OR TRANSFERRING FACILITY

P_06

### Definition

The time the unit transporting to your hospital left the scene/transferring facility.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Used to auto-generate an additional calculated field: Total EMS Scene Time (elapsed time from EMS scene arrival to scene departure).
- 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 (departure is defined at date/time when the vehicle started moving).
- The null value "Not Applicable" is used for patients who were not transported by EMS.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3301 | 1 | Time is not valid |
| 3302 | 1 | Time out of range |
| 3303 | 4 | EMS Unit Scene Departure Time is earlier than EMS Dispatch Time |
| 3304 | 4 | EMS Unit Scene Departure Time is earlier than EMS Unit Arrival on Scene Time |
| 3305 | 4 | EMS Unit Scene Departure Time is later than ED/Hospital Arrival Time |
| 3306 | 4 | EMS Unit Scene Departure Time is later than the ED Discharge Time |
| 3307 | 4 | EMS Unit Scene Departure Time is later than Hospital Discharge Time |
| 3308 | 2 | Field cannot be blank |

P_07

## TRANSPORT MODE

### Definition

The mode of transport delivering the patient to your hospital.

### Field Values

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

### Additional Information

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3401 | 1 | Value is not a valid menu option |
| 3402 | 2 | Field cannot be blank |
| 3403 | 4 | Transport Mode should not be 4 (Private/Public Vehicle/Walk-in) when EMS response times are not "Not Applicable" or "Not Known/Not Recorded" |
| 3404 | 2 | Field cannot be Not Applicable |

P_08

## OTHER TRANSPORT MODE

### Definition

All other modes of transport used during patient care event (prior to arrival at your hospital), except the mode delivering the patient to the hospital.

### Field Values

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

### Additional Information

- Include in "Other" unspecified modes of transport.
- The null value "Not Applicable" is used to indicate that a patient had a single mode of transport and therefore this field does not apply to the patient.
- Check all that apply with a maximum of 5.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3501 | 1 | Value is not a valid menu option |
| 3502 | 2 | Field cannot be blank |

## INITIAL FIELD SYSTOLIC BLOOD PRESSURE

P_09

### Definition

First recorded systolic blood pressure measured at the scene of injury.

### Field Values

- Relevant value for data element

### Additional Information

- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3601 | 1 | Invalid value |
| 3602 | 2 | Field cannot be blank |
| 3603 | 3 | SBP exceeds the max of 300 |

P_10

## INITIAL FIELD PULSE RATE

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3701 | 1 | Invalid value |
| 3702 | 2 | Field cannot be blank |
| 3703 | 3 | Pulse rate exceeds the max of 299 |

P_11

## INITIAL FIELD RESPIRATORY RATE

### Definition

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

### Field Values

- Relevant value for data element.

### Additional Information

- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3801 | 1 | Invalid value. RR cannot be > 99 for age in years >= 6 OR RR cannot be > 120 for age in years < 6. If age and age units are not valued, RR cannot be > 120. |
| 3802 | 2 | Field cannot be blank |
| 3803 | 3 | Invalid, out of range. RR cannot be > 99 and <=120 for age in years < 6. If age and age units are not valued, RR cannot be > 99. |

P_12

## INITIAL FIELD OXYGEN SATURATION

### Definition

First recorded oxygen saturation measured at the scene of injury (expressed as a percentage).

### Field Values

- Relevant value for data element

### Additional Information

- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- Value should be based upon assessment before administration of supplemental oxygen.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 3901 | 1 | Pulse oximetry is outside the valid range of 0 - 100 |
| 3902 | 2 | Field cannot be blank |

## INITIAL FIELD GCS - EYE

### Definition

First recorded Glasgow Coma Score (Eye) measured 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

### Additional Information

- Used to calculate Overall GCS - EMS Score.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4001 | 1 | Value is not a valid menu option |
| 4003 | 2 | Field cannot be blank |

P_14

## INITIAL FIELD GCS - VERBAL

### Definition

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

### Field Values

*Pediatric (≤ 2 years):*

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

### Additional Information

- Used to calculate Overall GCS - EMS Score.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- 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.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4101 | 1 | Value is not a valid menu option |
| 4103 | 2 | Field cannot be blank |

## INITIAL FIELD GCS - MOTOR

### Definition

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

### Field Values

*Pediatric (≤ 2 years):*

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

### Additional Information

- Used to calculate Overall GCS - EMS Score.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- 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.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4201 | 1 | Value is not a valid menu option |
| 4203 | 2 | Field cannot be blank |

## INITIAL FIELD GCS - TOTAL

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- 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.
- 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 Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4301 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 4303 | 4 | Initial Field GCS - Total does not equal the sum of Initial Field GCS - Eye, Initial Field GCS - Verbal, and Initial Field GCS - Motor |
| 4304 | 2 | Field cannot be blank |

P_17

## INTER-FACILITY TRANSFER

### Definition

Was the patient transferred to your facility from another acute care facility?

### Field Values

1. Yes
2. No

### Additional Information

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

### Data Source Hierarchy Guide

1. EMS Run Report
2. Triage/Trauma Flow Sheet
3. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4401 | 2 | Field cannot be blank |
| 4402 | 1 | Value is not a valid menu option |
| 4404 | 3 | Field should not be Not Known/Not Recorded |
| 4405 | 2 | Field cannot be Not Applicable |

## TRAUMA CENTER CRITERIA

### Definition

Physiologic and anatomic EMS trauma triage criteria for transport to a trauma center as defined by the Centers for Disease Control and Prevention and the American College of Surgeons-Committee on Trauma. This information must be found on the scene of injury EMS Run Report.

### Field Values

1. Glasgow Coma Score <= 13
2. Systolic blood pressure < 90 mmHg
3. Respiratory rate < 10 or > 29 breaths per minute (< 20 in infants aged < 1 year) or need for ventilatory support
4. All penetrating injuries to head, neck, torso, and extremities proximal to elbow or knee
5. Chest wall instability or deformity (e.g., flail chest)
6. Two or more proximal long-bone fractures
7. Crushed, degloved, mangled, or pulseless extremity
8. Amputation proximal to wrist or ankle
9. Pelvic fracture
10. Open or depressed skull fracture
11. Paralysis

### Additional Information

- The null value "Not Applicable" should be used to indicate that the patient did not arrive by EMS.
- The null value "Not Applicable" should be used if EMS Run Report indicates patient did not meet any Trauma Center Criteria.
- The null value "Not Known/Not Recorded" should be used if this information is not indicated, as an identical response choice, on the EMS Run Report or if the EMS Run Report is not available.
- Check all that apply.
- Consistent with NEMSIS v3.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9501 | 1 | Value is not a valid menu option |
| 9502 | 2 | Field cannot be blank |

## VEHICULAR, PEDESTRIAN, OTHER RISK INJURY

### Definition

EMS trauma triage mechanism of injury criteria for transport to a trauma center as defined by the Centers for Disease Control and Prevention and the American College of Surgeons-Committee on Trauma. This information must be found on the scene of injury EMS Run Report.

### Field Values

1. Fall adults: > 20 ft. (one story is equal to 10 ft.)
2. Fall children: > 10 ft. or 2-3 times the height of the child
3. Crash intrusion, including roof: > 12 in. occupant site; > 18 in. any site
4. Crash ejection (partial or complete) from automobile
5. Crash death in same passenger compartment
6. Crash vehicle telemetry data (AACN) consistent with high risk injury
7. Auto v. pedestrian/bicyclist thrown, run over, or > 20 MPH impact
8. Motorcycle crash > 20 mph
9. For adults > 65; SBP < 110
10. Patients on anticoagulants and bleeding disorders
11. Pregnancy > 20 weeks
12. EMS provider judgment
13. Burns
14. Burns with Trauma

### Additional Information

- The null value "Not Applicable" should be used to indicate that the patient did not arrive by EMS.
- The null value "Not Applicable" should be used if EMS Run Report indicates patient did not meet any Vehicular, Pedestrian, Other Risk Injury criteria.
- The null value "Not Known/Not Recorded" should be used if this information is not indicated, as an identical response choice, on the EMS Run Report or if the EMS Run Report is not available.
- Check all that apply.
- Consistent with NEMSIS v3.

### Data Source Hierarchy Guide

1. EMS Run Report

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9601 | 1 | Value is not a valid menu option |
| 9602 | 2 | Field cannot be blank |

P_20

## PRE-HOSPITAL CARDIAC ARREST

### Definition

Indication of whether patient experienced cardiac arrest prior to ED/Hospital arrival.

### Field Values

1. Yes
2. No

### 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 Report
2. Nursing Notes/Flow Sheet
3. History & Physical
4. Transfer Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9701 | 1 | Value is not a valid menu option |
| 9702 | 2 | Field cannot be blank |
| 9703 | 2 | Field cannot be Not Applicable |

# Emergency Department Information

ED_01

## ED/HOSPITAL ARRIVAL DATE

### Definition

The date the patient arrived to the ED/hospital.

### Field Values

- Relevant value for data element

### Additional Information

- If the patient was brought to the ED, enter date patient arrived at ED. If patient was directly admitted to the hospital, enter date patient was admitted to the hospital.
- Collected as YYYY-MM-DD.
- 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/Trauma Flow Sheet
2. ED Record
3. Face Sheet
4. Billing Sheet
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4501 | 1 | Date is not valid |
| 4502 | 1 | Date out of range |
| 4503 | 2 | Field cannot be blank |
| 4505 | 2 | Field cannot be Not Known/Not Recorded |
| 4506 | 3 | ED/Hospital Arrival Date is earlier than EMS Dispatch Date |
| 4507 | 3 | ED/Hospital Arrival Date is earlier than EMS Unit Arrival on Scene Date |
| 4508 | 3 | ED/Hospital Arrival Date is earlier than EMS Unit Scene Departure Date |
| 4509 | 2 | ED/Hospital Arrival Date is later than ED Discharge Date |
| 4510 | 2 | ED/Hospital Arrival Date is later than Hospital Discharge Date |
| 4511 | 3 | ED/Hospital Arrival Date is earlier than Date of Birth |
| 4512 | 3 | ED/Hospital Arrival Date should be after 1993 |
| 4513 | 3 | ED/Hospital Arrival Date minus Injury Incident Date should be less than 30 days |
| 4514 | 3 | ED/Hospital Arrival Date minus EMS Dispatch Date is greater than 7 days |
| 4515 | 2 | Field cannot be Not Applicable |

ED_02

## ED/HOSPITAL ARRIVAL TIME

### Definition

The time the patient arrived to the ED/hospital.

### Field Values

- Relevant value for data element

### Additional Information

- If the patient was brought to the ED, enter time patient arrived at ED. If patient was directly admitted to the hospital, enter time patient was admitted to the hospital.
- Collected as HH:MM military time.
- 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/Trauma Flow Sheet
2. ED Record
3. Face Sheet
4. Billing Sheet
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4601 | 1 | Time is not valid |
| 4602 | 1 | Time out of range |
| 4603 | 2 | Field cannot be blank |
| 4604 | 4 | ED/Hospital Arrival Time is earlier than EMS Dispatch Time |
| 4605 | 4 | ED/Hospital Arrival Time is earlier than EMS Unit Arrival on Scene Time |
| 4606 | 4 | ED/Hospital Arrival Time is earlier than EMS Unit Scene Departure Time |
| 4607 | 4 | ED/Hospital Arrival Time is later than ED Discharge Time |
| 4608 | 4 | ED/Hospital Arrival Time is later than Hospital Discharge Time |
| 4609 | 2 | Field cannot be Not Applicable |

ED_03

## INITIAL ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

### Definition

First recorded systolic blood pressure in the ED/hospital within 30 minutes or less of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Please note that first recorded hospital vitals do not need to be from the same assessment.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes
4. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4701 | 1 | Invalid value |
| 4702 | 2 | Field cannot be blank |
| 4704 | 3 | SBP value exceeds the max of 300 |
| 4705 | 2 | Field cannot be Not Applicable |

ED_04

## INITIAL ED/HOSPITAL PULSE RATE

### Definition

First recorded pulse in the ED/hospital (palpated or auscultated) within 30 minutes or less of ED/hospital arrival (expressed as a number per minute).

### Field Values

- Relevant value for data element

### Additional Information

- Please note that first recorded hospital vitals do not need to be from the same assessment.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4801 | 1 | Invalid value |
| 4802 | 2 | Field cannot be blank |
| 4804 | 3 | Pulse rate exceeds the max of 299 |
| 4805 | 2 | Field cannot be Not Applicable |

ED_05

## INITIAL ED/HOSPITAL TEMPERATURE

### Definition

First recorded temperature (in degrees Celsius [centigrade]) in the ED/hospital within 30 minutes or less of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

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

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 4901 | 1 | Invalid value |
| 4902 | 2 | Field cannot be blank |
| 4903 | 3 | Temperature exceeds the max of 45.0 Celsius |
| 4904 | 2 | Field cannot be Not Applicable |

ED_06

## INITIAL ED/HOSPITAL RESPIRATORY RATE

### Definition

First recorded respiratory rate in the ED/hospital within 30 minutes or less of ED/hospital arrival (expressed as a number per minute).

### Field Values

- Relevant value for data element

### Additional Information

- If recorded, complete additional field: "Initial ED/Hospital Respiratory Assistance."
- Please note that first recorded hospital vitals do not need to be from the same assessment.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Respiratory Therapy Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5001 | 1 | Invalid value. RR cannot be > 99 for age in years >= 6 OR RR cannot be > 120 for age in years < 6. If age and age units are not valued, RR cannot be > 120. |
| 5002 | 2 | Field cannot be blank |
| 5005 | 3 | Invalid, out of range. RR cannot be > 99 and <=120 for age in years < 6. If age and age units are not valued, RR cannot be > 99. |
| 5006 | 2 | Field cannot be Not Applicable |

ED_07

## INITIAL ED/HOSPITAL RESPIRATORY ASSISTANCE

### Definition

Determination of respiratory assistance associated with the initial ED/hospital respiratory rate within 30 minutes or less of ED/hospital arrival.

### Field Values

1. Unassisted Respiratory Rate
2. Assisted Respiratory Rate

### Additional Information

- Only completed if a value is provided for Initial ED/Hospital 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/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Respiratory Therapy Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5101 | 1 | Value is not a valid menu option |
| 5102 | 2 | Field cannot be blank |

ED_08

## INITIAL ED/HOSPITAL OXYGEN SATURATION

### Definition

First recorded oxygen saturation in the ED/hospital within 30 minutes or less of ED/hospital arrival (expressed as a percentage).

### Field Values

- Relevant value for data element

### Additional Information

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

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Respiratory Therapy Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5201 | 1 | Pulse oximetry is outside the valid range of 0 - 100 |
| 5202 | 2 | Field cannot be blank |
| 5205 | 2 | Field cannot be Not Applicable |

## INITIAL ED/HOSPITAL SUPPLEMENTAL OXYGEN

ED_09

### Definition

Determination of the presence of supplemental oxygen during assessment of initial ED/hospital oxygen saturation level within 30 minutes or less of ED/hospital arrival.

### Field Values

1. No Supplemental Oxygen
2. Supplemental Oxygen

### Additional Information

- Only completed if a value is reported for Initial ED/Hospital Oxygen Saturation, otherwise report as "Not Applicable".
- Please note that first recorded hospital vitals do not need to be from the same assessment.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5301 | 1 | Value is not a valid menu option |
| 5303 | 2 | Field cannot be blank |

ED_10

## INITIAL ED/HOSPITAL GCS - EYE

### Definition

First recorded Glasgow Coma Score (Eye) in the ED/hospital within 30 minutes or less of ED/hospital arrival.

### 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

### Additional Information

- Used 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/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5401 | 1 | Value is not a valid menu option |
| 5403 | 2 | Field cannot be blank |
| 5404 | 2 | Field cannot be Not Applicable |

ED_11

## INITIAL ED/HOSPITAL GCS - VERBAL

### Definition

First recorded Glasgow Coma Score (Verbal) within 30 minutes or less of ED/hospital arrival.

### Field Values

*Pediatric (≤ 2 years):*

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

### Additional Information

- Used 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/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5501 | 1 | Value is not a valid menu option |
| 5503 | 2 | Field cannot be blank |
| 5504 | 2 | Field cannot be Not Applicable |

ED_12

## INITIAL ED/HOSPITAL GCS - MOTOR

### Definition

First recorded Glasgow Coma Score (Motor) within 30 minutes or less of ED/hospital arrival.

### Field Values

*Pediatric (≤ 2 years):*

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

### Additional Information

- Used 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/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5601 | 1 | Value is not a valid menu option |
| 5603 | 2 | Field cannot be blank |
| 5604 | 2 | Field cannot be Not Applicable |

ED_13

## INITIAL ED/HOSPITAL GCS - TOTAL

### Definition

First recorded Glasgow Coma Score (total) within 30 minutes or less of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- 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/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5701 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 5703 | 4 | Initial ED/Hospital GCS - Total does not equal the sum of Initial ED/Hospital GCS - Eye, Initial ED/Hospital GCS - Verbal, and Initial ED/Hospital GCS - Motor |
| 5705 | 2 | Field cannot be blank |
| 5706 | 2 | Field cannot be Not Applicable |

ED_14

## INITIAL ED/HOSPITAL GCS ASSESSMENT QUALIFIERS

### Definition

Documentation of factors potentially affecting the first assessment of GCS within 30 minutes or less of ED/hospital arrival.

### Field Values

1. Patient Chemically Sedated or Paralyzed
2. Obstruction to the Patient's Eye
3. Patient Intubated
4. Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to the eye

### Additional Information

- Identifies treatments given to the patient that may affect the first assessment of GCS. This field does not apply to self-medications the patient may administer (i.e., ETOH, prescriptions, etc.).
- 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.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.
- Check all that apply.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Physician Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5801 | 1 | Value is not a valid menu option |
| 5802 | 2 | Field cannot be blank |
| 5803 | 2 | Field cannot be Not Applicable |

ED_15

## INITIAL ED/HOSPITAL HEIGHT

### Definition

First recorded height upon ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Recorded in centimeters.
- May be based on family or self-report.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Pharmacy Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8501 | 1 | Invalid value |
| 8502 | 2 | Field cannot be blank |
| 8503 | 3 | Height exceeds the max of 244 (cm) |
| 8504 | 2 | Field cannot be Not Applicable |

ED_16

## INITIAL ED/HOSPITAL WEIGHT

### Definition

First recorded, measured or estimated baseline weight upon ED/Hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Recorded in kilograms.
- May be based on family or self-report.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.

### Data Source Hierarchy Guide

1. Triage/Trauma/Hospital Flow Sheet
2. Nurses Notes/Flow Sheet
3. Pharmacy Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8601 | 1 | Invalid value |
| 8602 | 2 | Field cannot be blank |
| 8603 | 3 | Weight exceeds the max of 907 (kg) |
| 8604 | 2 | Field cannot be Not Applicable |

ED_17

## DRUG SCREEN

### Definition

First recorded positive drug screen results within 24 hours after first hospital encounter (select all that apply).

### Field Values

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

### Additional Information

- Record positive drug screen results within 24 hours after first hospital encounter, at either your facility or the 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. Transferring Facility Records

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6011 | 1 | Value is not a valid menu option |
| 6012 | 2 | Field cannot be blank |
| 6013 | 2 | Field cannot be Not Applicable |

## ALCOHOL SCREEN

ED_18

### Definition

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

### Field Values

1. Yes
2. No

### 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. Transferring Facility Records

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5911 | 1 | Value is not a valid menu option |
| 5912 | 2 | Field cannot be blank |
| 5913 | 2 | Field cannot be Not Applicable |

ED_19

## ALCOHOL SCREEN RESULTS

### Definition

First recorded blood alcohol concentration (BAC) results within 24 hours after first hospital encounter.

### Field Values

- Relevant value for data element.

### 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 patient who were not tested.

### Data Source Hierarchy Guide

1. Lab Results
2. Transferring Facility Records

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 5931 | 1 | Invalid value |
| 5932 | 2 | Field cannot be blank |
| 5933 | 2 | Field cannot be Not Applicable when Alcohol Screen is 1 (Yes) |

ED_20

## ED DISCHARGE DISPOSITION

### Definition

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

### Field Values

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

### Additional Information

- The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
- If ED Discharge Disposition is 4, 5, 6, 9, 10, 11, then Hospital Discharge Date, Time, and Disposition should be "Not Applicable".

### Data Source Hierarchy Guide

1. Physician Order
2. Discharge Summary
3. Nursing Notes/Flow Sheet
4. Case Management/Social Services Notes
5. ED Record
6. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6101 | 1 | Value is not a valid menu option |
| 6102 | 2 | Field cannot be blank |
| 6104 | 2 | Field cannot be Not Known/Not Recorded |
| 6106 | 2 | Field cannot not be Not Applicable when Hospital Discharge Date is Not Applicable |
| 6107 | 2 | Field cannot not be Not Applicable when Hospital Discharge Date is Not Known/Not Recorded |
| 6108 | 2 | Field cannot not be Not Applicable when Hospital Discharge Disposition is Not Applicable |
| 6109 | 2 | Field cannot not be Not Applicable when Hospital Discharge Disposition is Not Known/Not Recorded |

ED_21

## SIGNS OF LIFE

### Definition

Indication of whether patient arrived at ED/Hospital with signs of life.

### Field Values

1. Arrived with NO signs of life
2. Arrived with signs of life

### 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/Trauma/Hospital Flow Sheet
2. Progress Notes
3. Nursing Notes/Flow Sheet
4. EMS Run Report
5. History & Physical

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6201 | 1 | Value is not a valid menu option |
| 6202 | 2 | Field cannot be blank |
| 6206 | 3 | Field should not be Not Known/Not Recorded |
| 6207 | 2 | Field cannot be Not Applicable |
| 6208 | 3 | Field is 1 (Arrived with NO signs of life) when Initial ED/Hospital SBP > 0, Pulse > 0, OR GCS Motor > 1. Please verify. |
| 6209 | 3 | Field is 2 (Arrived with signs of life) when Initial ED/Hospital SBP = 0, Pulse = 0, AND GCS Motor = 1. Please verify. |

ED_22

## ED DISCHARGE DATE

### Definition

The date the order was written for the patient to be discharged from the ED.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Used to auto-generate an additional calculated field: Total ED Time: (elapsed time from ED admit to ED discharge).
- The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
- If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Date is the date of death as indicated on the patient's death certificate.

### Data Source Hierarchy Guide

1. Physician Order
2. ED Record
3. Triage/Trauma/Hospital Flow Sheet
4. Nursing Notes/Flow Sheet
5. Discharge Summary
6. Billing Sheet
7. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6301 | 1 | Date is not valid |
| 6302 | 1 | Date out of range |
| 6303 | 2 | Field cannot be blank |
| 6304 | 4 | ED Discharge Date is earlier than EMS Dispatch Date |
| 6305 | 4 | ED Discharge Date is earlier than EMS Unit Arrival on Scene Date |
| 6306 | 4 | ED Discharge Date is earlier than EMS Unit Scene Departure Date |
| 6307 | 2 | ED Discharge Date is earlier than ED/Hospital Arrival Date |
| 6308 | 2 | ED Discharge Date is later than Hospital Discharge Date |
| 6309 | 3 | ED Discharge Date is earlier than Date of Birth |
| 6310 | 3 | ED Discharge Date minus ED/Hospital Arrival Date is greater than 365 days |

ED_23

## ED DISCHARGE TIME

### Definition

The time the order was written for the patient to be discharged from the ED.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Used to auto-generate an additional calculated field: Total ED Time (elapsed time from ED admit to ED discharge).
- The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
- If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Time is the time of death as indicated on the patient's death certificate.

### Data Source Hierarchy Guide

1. Physician Order
2. ED Record
3. Triage/Trauma/Hospital Flow Sheet
4. Nursing Notes/Flow Sheet
5. Discharge Summary
6. Billing Sheet
7. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6401 | 1 | Time is not valid |
| 6402 | 1 | Time out of range |
| 6403 | 2 | Field cannot be blank |
| 6404 | 4 | ED Discharge Time is earlier than EMS Dispatch Time |
| 6405 | 4 | ED Discharge Time is earlier than EMS Unit Arrival on Scene Time |
| 6406 | 4 | ED Discharge Time is earlier than EMS Unit Scene Departure Time |
| 6407 | 4 | ED Discharge Time is earlier than ED/Hospital Arrival Time |
| 6408 | 4 | ED Discharge Time is later than Hospital Discharge Time |

# Hospital Procedure Information

## ICD-10 HOSPITAL PROCEDURES

### Definition

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 NTDB.

### Field Values

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

### 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 procedures performed in the operating room.
- Capture all procedures 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 of hospitalization. In this case, capture only the first event. If there is no asterisk, capture each event even if there is more than one.
- Note that the hospital may capture additional procedures.

**DIAGNOSTIC AND THERAPEUTIC IMAGING**

Computerized tomographic Head *

Computerized tomographic Chest *

Computerized tomographic Abdomen *

Computerized tomographic Pelvis *

Diagnostic ultrasound (includes FAST) *

Doppler ultrasound of extremities *

Angiography

Angioembolization

REBOA (ICD10: 04L03DZ)

IVC filter

**CARDIOVASCULAR**

Open cardiac massage

CPR

**CNS**

**MUSCULOSKELETAL**

Soft tissue/bony debridements *

Closed reduction of fractures

Skeletal and halo traction

Fasciotomy

**TRANSFUSION**

Transfusion of red cells * (only capture first 24 hours after hospital arrival)

Transfusion of platelets * (only capture first 24 hours after hospital arrival)

Transfusion of plasma * (only capture first 24 hours after hospital arrival)

**RESPIRATORY**

Insertion of endotracheal tube * (exclude intubations performed in the OR)

Continuous mechanical ventilation *

Chest tube *

Bronchoscopy *

Tracheostomy

Insertion of ICP monitor *

Ventriculostomy *

Cerebral oxygen monitoring *

**GENITOURINARY**

Ureteric catheterization (i.e. Ureteric stent)

Suprapubic cystostomy

**GASTROINTESTINAL**

Endoscopy (includes gastroscopy, sigmoidoscopy, colonoscopy)

Gastrostomy/jejunostomy (percutaneous or endoscopic)

Percutaneous (endoscopic) gastrojejunoscopy

### Data Source Hierarchy Guide

1. Operative Reports
2. Procedure Notes
3. Trauma Flow Sheet
4. ED Record
5. Nursing Notes/Flow Sheet
6. Radiology Reports
7. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8801 | 1 | Invalid value (ICD-10 CM only) |
| 8802 | 1 | Procedures with the same code cannot have the same Hospital Procedure Start Date and Time |
| 8803 | 2 | Field cannot be blank |
| 8804 | 4 | Field should not be Not Applicable unless patient had no procedures performed |
| 8805 | 1 | Invalid value (ICD-10 CA only) |

HP_02

## HOSPITAL PROCEDURE START DATE

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.

### Data Source Hierarchy Guide

1. Operative Reports
2. Procedure Notes
3. Trauma Flow Sheet
4. ED Record
5. Nursing Notes/Flow Sheet
6. Radiology Reports
7. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6601 | 1 | Date is not valid |
| 6602 | 1 | Date out of range |
| 6603 | 4 | Hospital Procedure Start Date is earlier than EMS Dispatch Date |
| 6604 | 4 | Hospital Procedure Start Date is earlier than EMS Unit Arrival on Scene Date |
| 6605 | 4 | Hospital Procedure Start Date is earlier than EMS Unit Scene Departure Date |
| 6606 | 4 | Hospital Procedure Start Date is earlier than ED/Hospital Arrival Date |
| 6607 | 4 | Hospital Procedure Start Date is later than Hospital Discharge Date |
| 6608 | 4 | Hospital Procedure Start Date is earlier than Date of Birth |
| 6609 | 2 | Field cannot be blank |

HP_03

## HOSPITAL PROCEDURE START TIME

### Definition

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

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Procedure start time is defined as the time the incision was made (or the procedure started).
- If distinct procedures with the same procedure code are performed, their start times must be different.

### Data Source Hierarchy Guide

1. Operative Reports
2. Anesthesia Reports
3. Procedure Notes
4. Trauma Flow Sheet
5. ED Record
6. Nursing Notes/Flow Sheet
7. Radiology Reports
8. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6701 | 1 | Time is not valid |
| 6702 | 1 | Time out of range |
| 6703 | 4 | Hospital Procedure Start Time is earlier than EMS Dispatch Time |
| 6704 | 4 | Hospital Procedure Start Time is earlier than EMS Unit Arrival on Scene Time |
| 6705 | 4 | Hospital Procedure Start Time is earlier than EMS Unit Scene Departure Time |
| 6706 | 4 | Hospital Procedure Start Time is earlier than ED/Hospital Arrival Time |
| 6707 | 4 | Hospital Procedure Start Time is later than Hospital Discharge Time |
| 6708 | 2 | Field cannot be blank |

## Diagnosis Information

DG_01

## CO-MORBID CONDITIONS

### Definition

Pre-existing co-morbid factors.

### Field Values

1. Other
2. Alcohol Use Disorder
4. Bleeding Disorder
5. Currently Receiving Chemotherapy for Cancer
6. Congenital Anomalies
7. Congestive Heart Failure
8. Current Smoker
9. Chronic Renal Failure
10. Cerebrovascular Accident (CVA)
11. Diabetes Mellitus
12. Disseminated Cancer
13. Advanced Directive Limiting Care
15. Functionally Dependent Health Status
~~16. RETIRED 2017 History of Angina Within 30 days~~
~~17. RETIRED 2017 History of Myocardial Infarction~~
~~18. RETIRED 2017 History of Peripheral Vascular Disease (PVD)~~
19. Hypertension
21. Prematurity
23. Chronic Obstructive Pulmonary Disease (COPD)
24. Steroid Use
25. Cirrhosis
26. Dementia
~~27. RETIRED 2017 Major Psychiatric Illness~~
~~28. RETIRED 2017 Drug Use Disorder~~
30. Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)
31. Anticoagulant Therapy
32. Angina Pectoris
33. Mental/Personality Disorder
34. Myocardial Infarction (MI)
35. Peripheral Arterial Disease (PAD)
36. Substance Abuse Disorder

### Additional Information

- The null value "Not Applicable" is used for patients with no known co-morbid conditions.
- Check all that apply.
- Co-Morbid Conditions which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Co-Morbid Conditions.

### Data Source Hierarchy Guide

1. History & Physical
2. Physician's Notes
3. Progress Notes
4. Case Management/Social Services
5. Nursing Notes/Flow Sheet
6. Triage/Trauma Flow Sheet
7. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 6801 | 1 | Value is not a valid menu option |
| 6802 | 2 | Field cannot be blank |

DG_02

## ICD-10 INJURY DIAGNOSES

### Definition

Diagnoses related to all identified injuries.

### Field Values

- Injury diagnoses as defined by ICD-10-CM code range S00-S99, T07, T14, T20-T28 and T30-T32.
- The maximum number of diagnoses that may be reported for an individual patient is 50.

### Additional Information

- ICD-10-CM codes pertaining to other medical conditions (e.g., CVA, MI, co-morbidities, etc.) may also be included in this field.
- Used to auto-generate additional calculated fields: Abbreviated Injury Scale (six body regions) and Injury Severity Score.

### Data Source Hierarchy Guide

1. Autopsy/Medical Examiner Report
2. Operative Reports
3. Radiology Reports
4. Physician's Notes
5. Trauma Flow Sheet
6. History & Physical
7. Nursing Notes/Flow Sheet
8. Progress Notes
9. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8701 | 1 | Invalid value (ICD-10 CM only) |
| 8702 | 2 | Field cannot be blank |
| 8703 | 2 | At least one diagnosis must be provided and meet inclusion criteria. (ICD-10 CM only) |
| 8704 | 4 | Field should not be Not Known/Not Recorded |
| 8705 | 1 | Invalid value (ICD-10 CA only) |
| 8706 | 2 | At least one diagnosis must be provided and meet inclusion criteria. (ICD-10 CA only) |

# Injury Severity Information

IS_01

## AIS PREDOT CODE

### Definition

The Abbreviated Injury Scale (AIS) pre-dot codes that reflect the patient's injuries.

### Field Values

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

### Additional Information

### Data Source Hierarchy Guide

1. AIS Coding Manual

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7001 | 1 | Invalid value |
| 7004 | 3 | AIS codes submitted are not valid AIS 05, Update 08 codes |
| 7007 | 2 | Field cannot be blank |
| 7008 | 2 | Field cannot be Not Applicable |

IS_02

## AIS SEVERITY

### Definition

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

### Field Values

1. Minor Injury
2. Moderate Injury
3. Serious Injury
4. Severe Injury
5. Critical Injury
6. Maximum Injury, Virtually Unsurvivable
9. Not Possible to Assign

### Additional Information

- Field value "9. Not Possible to Assign" would be chosen if it is not possible to assign a severity to an injury.

### Data Source Hierarchy Guide

1. AIS Coding Manual

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7101 | 1 | Value is not a valid menu option |
| 7103 | 2 | Field cannot be blank |
| 7104 | 2 | Field cannot be Not Applicable |

IS_03

## AIS VERSION

### Definition

The software (and version) used to calculate Abbreviated Injury Scale (AIS) severity codes.

### Field Values

6. AIS 05, Update 08

### Additional Information

### Data Source Hierarchy Guide

1. AIS Coding Manual

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7301 | 1 | Value is not a valid menu option |
| 7302 | 2 | Field cannot be blank |
| 7303 | 2 | Field cannot be Not Applicable |

# Outcome Information

O_01

## TOTAL ICU LENGTH OF STAY

### Definition

The cumulative amount of time spent in the ICU. Each partial or full day should be measured as one calendar day.

### Field Values

- Relevant value for data element

### 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.
- The null value "Not Known/Not Recorded" is used if any dates are missing.
- 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.
- The null value "Not Applicable" is used if the patient had no ICU days according to the above definition.

| 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) |

### Data Source Hierarchy Guide

1. ICU Flow Sheet
2. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7501 | 1 | Total ICU Length of Stay is outside the valid range of 1 - 575 |
| 7502 | 2 | Field cannot be blank |
| 7503 | 3 | Total ICU Length of Stay is greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date |
| 7504 | 3 | Value is greater than 365, please verify this is correct |

O_02

## TOTAL VENTILATOR DAYS

### Definition

The cumulative amount of time spent on the ventilator. Each partial or full day should be measured as one calendar day.

### Field Values

- Relevant value for data element

### 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.
- The null value "Not Known/Not Recorded" is used if any dates are missing.
- At no time should the Total Vent Days exceed the Hospital LOS.
- The null value "Not Applicable" is used if the patient was not on the ventilator according to the above definition.

| 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 on Vent 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 on Vent 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 on Vent 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 on Vent on 3 separate calendar days) |

### Data Source Hierarchy Guide

1. Respiratory Therapy Notes/Flow Sheet
2. ICU Flow Sheet
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7601 | 1 | Total Ventilator Days is outside the valid range of 1 - 575 |
| 7602 | 2 | Field cannot be blank |
| 7603 | 4 | Total Ventilator Days should not be greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date |
| 7604 | 4 | Value is greater than 365, please verify this is correct |

O_03

## HOSPITAL DISCHARGE DATE

### Definition

The date the order was written for the patient to be discharged from the hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Used to auto-generate an additional calculated field: Total Length of Hospital Stay (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.
- If Hospital Discharge Disposition is 5 Deceased/Expired, then Hospital Discharge Date is the date of death as indicated on the patient's death certificate.

### Data Source Hierarchy Guide

1. Physician Order
2. Discharge Instructions
3. Nursing Notes/Flow Sheet
4. Case Management/Social Services Notes
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7701 | 1 | Date is not valid |
| 7702 | 1 | Date out of range |
| 7703 | 2 | Field cannot be blank |
| 7704 | 3 | Hospital Discharge Date is earlier than EMS Dispatch Date |
| 7705 | 3 | Hospital Discharge Date is earlier than EMS Unit Arrival on Scene Date |
| 7706 | 3 | Hospital Discharge Date is earlier than EMS Unit Scene Departure Date |
| 7707 | 2 | Hospital Discharge Date is earlier than ED/Hospital Arrival Date |
| 7708 | 2 | Hospital Discharge Date is earlier than ED Discharge Date |
| 7709 | 3 | Hospital Discharge Date is earlier than Date of Birth |
| 7710 | 3 | Hospital Discharge Date minus Injury Incident Date is greater than 365 days, please verify this is correct |
| 7711 | 3 | Hospital Discharge Date minus ED/Hospital Arrival Date is greater than 365 days, please verify this is correct |
| 7712 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |

| | | |
|---|---|---|
| 7713 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |

## HOSPITAL DISCHARGE TIME

O_04

### Definition

The time the order was written for the patient to be discharged from the hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Used to auto-generate an additional calculated field: Total Length of Hospital Stay (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.
- If Hospital Discharge Disposition is 5 Deceased/Expired, then Hospital Discharge Time is the time of death as indicated on the patient's death certificate.

### Data Source Hierarchy Guide

1. Physician Order
2. Discharge Instructions
3. Nursing Notes/Flow Sheet
4. Case Management/Social Services Notes
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7801 | 1 | Time is not valid |
| 7802 | 1 | Time out of range |
| 7803 | 2 | Field cannot be blank |
| 7804 | 4 | Hospital Discharge Time is earlier than EMS Dispatch Time |
| 7805 | 4 | Hospital Discharge Time is earlier than EMS Unit Arrival on Scene Time |
| 7806 | 4 | Hospital Discharge Time is earlier than EMS Unit Scene Departure Time |
| 7807 | 4 | Hospital Discharge Time is earlier than ED/Hospital Arrival Time |
| 7808 | 4 | Hospital Discharge Time is earlier than ED Discharge Time |
| 7809 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |
| 7810 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |

O_05

## HOSPITAL DISCHARGE DISPOSITION

### Definition

The disposition of the patient when discharged from the hospital.

### Field Values

1. Discharged/Transferred to a short-term general hospital for inpatient care
2. Discharged/Transferred to an Intermediate Care Facility (ICF)
3. Discharged/Transferred to home under care of organized home health service
4. Left against medical advice or discontinued care
5. Deceased/Expired
6. Discharged to home or self-care (routine discharge)
7. Discharged/Transferred to Skilled Nursing Facility (SNF)
8. Discharged/Transferred to hospice care
10. Discharged/Transferred to court/law enforcement.
11. Discharged/Transferred to inpatient rehab or designated unit
12. Discharged/Transferred to Long Term Care Hospital (LTCH)
13. Discharged/Transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
14. Discharged/Transferred to another type of institution not defined elsewhere

### Additional Information

- Field value = 6, "Home" refers to the patient's current place of residence (e.g., Prison, Child Protective Services 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 14.
- 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.
- Hospital Discharge Dispositions which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Discharge Dispositions.

### Data Source Hierarchy Guide

1. Physician Order
2. Discharge Instructions
3. Nursing Notes/Flow Sheet
4. Case Management/Social Services Notes
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 7901 | 1 | Value is not a valid menu option |
| 7902 | 2 | Field cannot be blank |

| | | |
|---|---|---|
| 7903 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |
| 7907 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |
| 7908 | 2 | Field cannot be Not Applicable |
| 7909 | 2 | Field cannot be "Not Known/Not Recorded" when Hospital Arrival Date and Hospital Discharge Date are not "Not Applicable" or "Not Known/Not Recorded" |

# Financial Information

F_01

## PRIMARY METHOD OF PAYMENT

### Definition

Primary source of payment for hospital care.

### Field Values

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

### Additional Information

- No Fault Automobile, Workers Compensation, and Blue Cross/Blue Shield should be captured as Private/Commercial Insurance.
- Primary methods of payments which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Primary Method of Payments.

### Data Source Hierarchy Guide

1. Billing Sheet
2. Admission Form
3. Face Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8001 | 1 | Value is not a valid menu option |
| 8002 | 2 | Field cannot be blank |
| 8003 | 2 | Field cannot be Not Applicable |

# Quality Assurance Information

Q_01

## HOSPITAL COMPLICATIONS

### Definition

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

### Field Values

1. Other
4. Acute Kidney Injury
5. Acute Respiratory Distress Syndrome (ARDS)
8. Cardiac Arrest with CPR
~~11. RETIRED 2017 Decubitus Ulcer~~
12. Deep Surgical Site Infection
~~13. RETIRED 2017 Drug or Alcohol Withdrawal Syndrome~~
14. Deep Vein Thrombosis (DVT)
15. Extremity Compartment Syndrome
~~16. RETIRED 2016 Graft/Prosthesis/Flap Failure~~
18. Myocardial Infarction
19. Organ/Space Surgical Site Infection
~~20. RETIRED 2016 Pneumonia~~
21. Pulmonary Embolism
22. Stroke / CVA
~~23. RETIRED 2017 Superficial Surgical Site Infection~~
25. Unplanned Intubation
~~27. RETIRED 2016 Urinary Tract Infection~~
~~28. RETIRED 2016 Catheter-Related Blood Stream Infection~~
29. Osteomyelitis
30. Unplanned Return to the OR
31. Unplanned Admission to the ICU
32. Severe Sepsis
33. Catheter-Associated Urinary Tract Infection (CAUTI)
34. Central Line-Associated Bloodstream Infection (CLABSI)
35. Ventilator-Associated Pneumonia (VAP)
36. Alcohol Withdrawal Syndrome
37. Pressure Ulcer
38. Superficial Incisional Surgical Site Infection

### Additional Information

- The null value "Not Applicable" should be used for patients with no complications.
- Check all that apply.
- Hospital Complications which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Complications.

### Data Source Hierarchy Guide

1. Physician Notes
2. Operative Report
3. Progress Notes
4. Radiology Report
5. Respiratory Notes
6. Lab Reports
7. Nursing Notes/Flow Sheet
8. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 8101 | 1 | Value is not a valid menu option |
| 8102 | 2 | Field cannot be blank |
| 8103 | 3 | Hospital Complications include Ventilator Associated Pneumonia although Total Ventilator Days is Not Applicable. Please verify. |

# TRAUMA QUALITY IMPROVEMENT PROGRAM
## Measures for Processes of Care

**The fields in this section should be collected and transmitted by Level 1 and Level 2 TQIP participating centers only. Please contact us at tqip@facs.org for information about joining TQIP.**

PM_01

## HIGHEST GCS TOTAL

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Highest total GCS within 24 hours of ED/Hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to highest total GCS within 24 hours after ED Hospital/Arrival to index hospital, where index hospital is the hospital abstracting the data.
- Requires review of all data sources to obtain the highest GCS total. In many cases, the highest GCS may occur after ED discharge.
- If patient is intubated then the GCS Verbal score is equal to 1.
- Best obtained when sedatives or paralytics are withheld as part of sedation holiday.
- 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.
- The null value "Not Applicable" is used for patients that do not meet collection criteria.

### Data Source Hierarchy Guide

1. Neuro Assessment Flow Sheet
2. Triage/Trauma/ICU Flow Sheet
3. Nursing Notes/Flow Sheet
4. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10001 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 10002 | 2 | Field cannot be blank |
| 10003 | 2 | Highest GCS Total is less than GCS Motor Component of Highest GCS Total |
| 10004 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10005 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

PM_02

## HIGHEST GCS MOTOR

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Highest motor GCS within 24 hours of ED/Hospital arrival.

### Field Values

*Pediatric (≤ 2 years):*

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

### Additional Information

- Refers to highest GCS motor score within 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Requires review of all data sources to obtain the highest GCS motor score. In many cases, the highest GCS motor score might occur after ED discharge.
- Best obtained when sedatives or paralytics are withheld as part of sedation holiday.
- 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. For example, 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. Neuro Assessment Flow Sheet
2. Triage/Trauma/ICU Flow Sheet
3. Nursing Notes/Flow Sheet
4. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10101 | 1 | Value is not a valid menu option |
| 10102 | 2 | Field cannot be blank |
| 10104 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection |

| | | |
|---|---|---|
| | | criteria |
| 10105 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

PM_03

## GCS ASSESSMENT QUALIFIER COMPONENT OF HIGHEST GCS TOTAL

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Documentation of factors potentially affecting the highest GCS within 24 hours of ED/hospital arrival.

### Field Values

1. Patient chemically sedated or paralyzed
2. Obstruction to the patient's eye
3. Patient intubated
4. Valid GCS: patient was not sedated, not intubated, and did not have obstruction to the eye

### Additional Information

- Refers to highest GCS assessment qualifier score after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Requires review of all data sources to obtain the highest GCS motor score which might occur after the ED phase of care.
- Identifies medical treatments given to the patient that may affect the best assessment of GCS. This field does not apply to self-medication the patient may have administered (i.e. ETOH, prescriptions, etc.).
- Must be the assessment qualifier for the Highest GCS Total.
- 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 agents 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.
- Check all that apply.

### Data Source Hierarchy Guide

1. Neuro Assessment Flow Sheet
2. Triage/Trauma/ICU Flow Sheet
3. Nursing Notes/Flow Sheet
4. Progress Notes
5. Medication Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10201 | 1 | Value is not a valid menu option |

| | | |
|---|---|---|
| 10202 | 2 | Field cannot be blank |
| 10203 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10204 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

## INITIAL ED/HOSPITAL PUPILLARY RESPONSE

PM_04

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Physiological response of the pupil size within 30 minutes or less of ED/hospital arrival.

### Field Values

1. Both reactive
2. One reactive
3. Neither reactive

### Additional Information

- Please note that first recorded hospital vitals do not need to be from the same assessment.
- If a patient does not have a listed field value recorded, but there is documentation related to their pupillary response such as PERRL "Pupils Equal Round Reactive to Light" submit field value 1. Both reactive IF there is no other contradicting documentation.
- The null value "Not Known/Not Recorded" should be submitted if this information is not documented or if assessment is unable to be obtained due to facial trauma and/or foreign object in the eye.
- Field value 2. One reactive should be reported for patients who have a prosthetic eye.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

### Data Source Hierarchy Guide

1. ED Nurses' Notes/Trauma Flow Sheet
2. Physician's Progress Notes
3. H & P

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13601 | 1 | Value is not a valid menu option |
| 13602 | 2 | Field cannot be blank |
| 13603 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 13604 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

PM_05

## MIDLINE SHIFT

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

> 5mm shift of the brain past its center line within 24 hours after time of injury

### Field Values

1. Yes
2. No
3. Not Imaged (e.g. CT Scan, MRI)

### Additional Information

- If there is documentation of "massive" midline shift in lieu of >5mm shift measurement, submit field value 1. Yes.
- Radiological and surgical documentation from transferring facilities should be considered for this data field.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Known/Not Recorded" is used if both the injury date and injury time are unknown.
- If the injury time is unknown, but there is supporting documentation that the injury occurred within 24-hours of any CT measuring a >5mm shift, report the field value "1. Yes" if there is no other contradicting documentation.
- If the patient was not imaged within 24 hours from the time of injury, report the field value "3. Not Imaged (e.g. CT Scan, MRI)".

### Data Source Hierarchy Guide

1. Radiology Report
2. OP Report
3. Physician's Progress Notes
4. Nurse's Notes
5. Hospital Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13701 | 1 | Value is not a valid menu option |
| 13702 | 2 | Field cannot be blank |
| 13703 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 13704 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

PM_06

## CEREBRAL MONITOR

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Indicate all cerebral monitors that were placed, including any of the following: ventriculostomy, subarachnoid bolt, camino bolt, external ventricular drain (EVD), licox monitor, jugular venous bulb.

### Field Values

1. Intraventricular drain/catheter (e.g. ventriculostomy, external ventricular drain)
2. Intraparenchymal pressure monitor (e.g. Camino bolt, subarachnoid bolt, intraparenchymal catheter)
3. Intraparenchymal oxygen monitor (e.g. Licox)
4. Jugular venous bulb
5. None

### Additional Information

- Refers to insertion of an intracranial pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI.
- Cerebral monitor placed at a referring facility would be acceptable if such a monitor was used by receiving facility to monitor the patient.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Check all that apply.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Triage/Trauma/ICU Flow Sheet
4. Nursing Notes/Flow Sheet
5. Progress Notes
6. Anesthesia Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10301 | 1 | Value is not a valid menu option |
| 10302 | 2 | Field cannot be blank |
| 10304 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10305 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

PM_07

## CEREBRAL MONITOR DATE

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Date of first cerebral monitor placement.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- The null value "Not Applicable" is used if the data field Cerebral Monitor is "5. None".
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- If the cerebral monitor was placed at the referring facility, cerebral monitor date must be the date of insertion at the referring facility.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Triage/Trauma/ICU Flow Sheet
4. Nursing Notes/Flow Sheet
5. Progress Notes
6. Anesthesia Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10401 | 1 | Date is not valid |
| 10402 | 2 | Field cannot be blank |
| 10403 | 1 | Date out of range |
| 10404 | 2 | Field cannot be "Not Applicable" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10405 | 3 | Field should not be "Not Known/Not Recorded" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" |
| 10407 | 4 | Cerebral Monitor Date should not be earlier than ED/Hospital Arrival Date unless placed at referring facility and used for monitoring |
| 10408 | 4 | Cerebral Monitor Date should not be later than Hospital Discharge Date |
| 10409 | 2 | Field should be Not Applicable when Cerebral Monitor is Not Applicable or None |

## CEREBRAL MONITOR TIME

PM_08

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

### Definition

Time of first cerebral monitor placement.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- The null value "Not Applicable" is used if the data field Cerebral Monitor is "5. None."
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- If the cerebral monitor was placed at the referring facility, cerebral monitor time must be the time of insertion at the referring facility.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Triage/Trauma/ICU Flow Sheet
4. Nursing Notes/Flow Sheet
5. Progress Notes
6. Anesthesia Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10501 | 1 | Time is not valid |
| 10502 | 1 | Time out of range |
| 10503 | 2 | Field cannot be blank |
| 10504 | 2 | Field cannot be "Not Applicable" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10505 | 3 | Field should not be "Not Known/Not Recorded" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" |
| 10506 | 4 | Cerebral Monitor Time should not be earlier than ED/Hospital Arrival Time unless placed at referring facility and used for monitoring |
| 10507 | 4 | Cerebral Monitor Time should not be later than Hospital Discharge Time |
| 10508 | 2 | Field should be Not Applicable when Cerebral Monitor is Not Applicable or None |

PM_09

## VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE

Collection Criterion: Collect on all patients

### Definition

Type of first dose of VTE prophylaxis administered to patient at your hospital.

### Field Values

1. Heparin
5. None
6. LMWH (Dalteparin, Enoxaparin, etc.)
7. Direct Thrombin Inhibitor (Dabigatran, etc.)
8. Xa Inhibitor (Rivaroxaban, etc.)
9. Coumadin
10. Other

### Additional Information

- Field Value “5. None” is used if the first dose of Venous Thromboembolism Prophylaxis is administered post discharge order date/time.
- Venous Thromboembolism Prophylaxis Types which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Venous Thromboembolism Prophylaxis Types.

### Data Source Hierarchy Guide

1. Medication Summary
2. Nursing Notes/Flow Sheet
3. Pharmacy Record

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10601 | 1 | Value is not a valid menu option |
| 10602 | 2 | Field cannot be blank |
| 10603 | 2 | Field cannot be Not Applicable |

PM_10

## VENOUS THROMBOEMBOLISM PROPHYLAXIS DATE

Collection Criterion: Collect on all patients

### Definition

Date of administration to patient of first prophylactic dose of heparin or other anticoagulants at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- Refers to date upon which patient first received the prophylactic agent indicated in VTE Prophylaxis Type field.
- The null value "Not Applicable" is used if Venous Thromboembolism Prophylaxis Type is "5. None."

### Data Source Hierarchy Guide

1. Medication Summary
2. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10701 | 1 | Date is not valid |
| 10702 | 1 | Date out of range |
| 10703 | 2 | Field cannot be blank |
| 10705 | 2 | Field cannot be "Not Applicable" when VTE Prophylaxis is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10706 | 2 | VTE Prophylaxis Date is earlier than ED/Hospital Arrival Date |
| 10707 | 2 | VTE Prophylaxis Date is later than Hospital Discharge Date |
| 10708 | 2 | Field should be Not Applicable when VTE Prophylaxis is 'None' |

PM_11

## VENOUS THROMBOEMBOLISM PROPHYLAXIS TIME

Collection Criterion: Collect on all patients

### Definition

Time of administration to patient of first prophylactic dose of heparin or other anticoagulants at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- Refers to time at which patient first received the prophylactic agent indicated in VTE Prophylaxis Type field.
- The null value "Not Applicable" is used if Venous Thromboembolism Prophylaxis Type is "5. None."

### Data Source Hierarchy Guide

1. Medication Summary
2. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10801 | 1 | Time is not valid |
| 10802 | 1 | Time out of range |
| 10803 | 2 | Field cannot be blank |
| 10805 | 2 | Field cannot be "Not Applicable" when VTE Prophylaxis is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10806 | 2 | VTE Prophylaxis Time is earlier than ED/Hospital Arrival Time |
| 10807 | 2 | VTE Prophylaxis Time is later than Hospital Discharge Time |
| 10808 | 2 | Field should be Not Applicable when VTE Prophylaxis is 'None' |

PM_12

## TRANSFUSION BLOOD (4 HOURS)

Collection Criterion: Collect on all patients

### Definition

Volume of packed red blood cells transfused (units or CCs) within first 4 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused packed red blood cells (units or CCs) within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- If no blood given, then volume should be 0 (zero).
- If packed red blood cells are transfusing upon patient arrival, count as 1-unit. Or, if reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Transfusion Blood Measurement and Transfusion Blood Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11001 | 1 | Invalid value |
| 11002 | 2 | Field cannot be blank |
| 11003 | 2 | Field cannot be Not Applicable |
| 11004 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |

PM_13

## TRANSFUSION BLOOD (24 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of packed red blood cells transfused (units or CCs) within first 24 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused packed red blood cells (units or CCs) within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used if no blood was given.
- If the patient meets the collection criteria and packed red blood cells are transfusing upon patient arrival, count as 1-unit. Or, if reporting CCs, report the amount of CCs transfused at your center.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- Must also complete the fields Transfusion Blood Measurement and Transfusion Blood Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11401 | 1 | Invalid value |
| 11402 | 2 | Field cannot be blank |
| 11404 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11405 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11406 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11407 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |
| 11408 | 2 | Field cannot be less than Transfusion Blood (4 Hours) |

PM_14

## TRANSFUSION BLOOD MEASUREMENT

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The measurement used to document the patient's blood transfusion (Units, CCs [MLs]).

### Field Values

1. Units
2. CCs (MLs)

### Additional Information

- Complete if fields Transfusion Blood (4 Hours) or Transfusion Blood (24 Hours) are valued.
- Must also complete field Transfusion Blood Conversion.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if no packed red blood cells were transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12801 | 1 | Value is not a valid menu option |
| 12802 | 2 | Field cannot be blank |

PM_15

## TRANSFUSION BLOOD CONVERSION

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The quantity of CCs [MLs] constituting a ‘unit’ for blood transfusions at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Complete if fields Transfusion Blood (4 Hours) or Transfusion Blood (24 Hours) are valued.
- Must also complete field Transfusion Blood Measurement.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if reporting transfusion blood measurements in CCs.
- The null value "Not Applicable" is used if no packed red blood cells were transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12901 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 12902 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 12903 | 2 | Field cannot be blank |

PM_16

## TRANSFUSION PLASMA (4 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of fresh frozen or thawed plasma (units or CCs) transfused within first 4 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused fresh frozen or thawed plasma (units or CCs) within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and plasma is transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Transfusion Plasma Measurement and Transfusion Plasma Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11101 | 1 | Invalid value |
| 11102 | 2 | Field cannot be blank |
| 11104 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11105 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11106 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11107 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_17

## TRANSFUSION PLASMA (24 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of fresh frozen or thawed plasma (units or CCs) transfused within first 24 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused fresh frozen or thawed plasma (units or CCs) within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and plasma is transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Transfusion Plasma Measurement and Transfusion Plasma Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11501 | 1 | Invalid value |
| 11502 | 2 | Field cannot be blank |
| 11504 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11506 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11507 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11508 | 2 | Field cannot be less than Transfusion Plasma (4 Hours) |
| 11509 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_18

## TRANSFUSION PLASMA MEASUREMENT

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The measurement used to document the patient's plasma transfusion (Units, CCs [MLs]).

### Field Values

1. Units
2. CCs (MLs)

### Additional Information

- Complete if fields Transfusion Plasma (4 Hours) or Transfusion Plasma (24 Hours) are valued.
- Must also complete field Transfusion Plasma Conversion.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if no plasma was transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13001 | 1 | Value is not a valid menu option |
| 13002 | 2 | Field cannot be blank |

PM_19

## TRANSFUSION PLASMA CONVERSION

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The quantity of CCs [MLs] constituting a ‘unit’ for plasma transfusions at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Complete if fields Transfusion Plasma (4 Hours) or Transfusion Plasma (24 Hours) are valued.
- Must also complete field Transfusion Plasma Measurement.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if reporting transfusion plasma measurements in CCs.
- The null value "Not Applicable" is used if no plasma was transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13101 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13102 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13103 | 2 | Field cannot be blank |

PM_20

## TRANSFUSION PLATELETS (4 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of platelets (units or CCs) transfused within first 4 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused platelets (units or CCs) within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and platelets are transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Transfusion Platelets Measurement and Transfusion Platelets Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11201 | 1 | Invalid value |
| 11202 | 2 | Field cannot be blank |
| 11204 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11205 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11206 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11207 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_21

## TRANSFUSION PLATELETS (24 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of platelets (units or CCs) transfused within first 24 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused platelets (units or CCs) within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and platelets are transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Transfusion Platelets Measurement and Transfusion Platelets Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11601 | 1 | Invalid value |
| 11602 | 2 | Field cannot be blank |
| 11604 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11605 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11606 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11607 | 2 | Field cannot be less than Transfusion Platelets (4 Hours) |
| 11608 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_22

## TRANSFUSION PLATELETS MEASUREMENT

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The measurement used to document the patient's platelets transfusion (Units, CCs [MLs]).

### Field Values

1. Units
2. CCs (MLs)

### Additional Information

- Complete if fields Transfusion Platelets (4 Hours) or Transfusion Platelets (24 Hours) are valued.
- Must also complete field Transfusion Platelets Conversion.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if no platelets were transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13201 | 1 | Value is not a valid menu option |
| 13202 | 2 | Field cannot be blank |

PM_23

## TRANSFUSION PLATELETS CONVERSION

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The quantity of CCs [MLs] constituting a ‘unit’ for platelets transfusions at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Complete if fields Transfusion Platelets (4 Hours) or Transfusion Platelets (24 Hours) are valued.
- Must also complete field Transfusion Platelets Measurement.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if reporting transfusion platelets measurements in CCs.
- The null value "Not Applicable" is used if no platelets were transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13301 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13302 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13303 | 2 | Field cannot be blank |

PM_24

## CRYOPRECIPITATE (4 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of solution enriched with clotting factors transfused (units or CCs) within first 4 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused cryoprecipitate (units or CCs) within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and cryoprecipitate is transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Cryoprecipitate Measurement and Cryoprecipitate Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11301 | 1 | Invalid value |
| 11302 | 2 | Field cannot be blank |
| 11304 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11305 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11306 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11307 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_25

## CRYOPRECIPITATE (24 HOURS)

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Volume of solution enriched with clotting factors transfused (units or CCs) within first 24 hours after ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to amount of transfused cryoprecipitate (units or CCs) within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value “Not Applicable” is used for patients that do not meet the collection criterion.
- If the patient meets the collection criteria and cryoprecipitate is transfusing upon patient arrival, count as 1-unit. If reporting CCs, report the amount of CCs transfused at your center.
- Must also complete the fields Cryoprecipitate Measurement and Cryoprecipitate Conversion when product is transfused.

### Data Source Hierarchy Guide

1. Trauma Flow Sheet
2. Anesthesia Report
3. Operative Report
4. Nursing Notes/Flow Sheet
5. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12701 | 1 | Invalid value |
| 12702 | 2 | Field cannot be blank |
| 12704 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 12705 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 12706 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 12707 | 2 | Field cannot be less than Transfusion Cryoprecipitate (4 Hours) |
| 12708 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_26

## CRYOPRECIPITATE MEASUREMENT

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The measurement used to document the patient's cryoprecipitate transfusion (Units, CCs [MLs]).

### Field Values

1. Units
2. CCs (MLs)

### Additional Information

- Complete if fields Cryoprecipitate (4 Hours) or Cryoprecipitate (24 Hours) are valued.
- Must also complete field Cryoprecipitate Conversion.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if no cryoprecipitate was transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13401 | 1 | Value is not a valid menu option |
| 13402 | 2 | Field cannot be blank |

PM_27

## CRYOPRECIPITATE CONVERSION

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

The quantity of CCs [MLs] constituting a ‘unit’ for cryoprecipitate transfusions at your hospital.

### Field Values

- Relevant value for data element

### Additional Information

- Complete if fields Cryoprecipitate (4 Hours) or Cryoprecipitate (24 Hours) are valued.
- Must also complete field Cryoprecipitate Measurement.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- The null value "Not Applicable" is used if reporting transfusion cryoprecipitate measurements in CCs.
- The null value "Not Applicable" is used if no cryoprecipitate was transfused.

### Data Source Hierarchy Guide

1. Blood Bank

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13501 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13502 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13503 | 2 | Field cannot be blank |

PM_28

## LOWEST ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Lowest sustained (>5 min) systolic blood pressure measured within the first hour of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Refers to lowest sustained (>5 min) SBP in the ED/hospital of the index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

### Data Source Hierarchy Guide

1. Triage/Trauma/ICU Flow Sheet
2. Operative Report
3. Nursing Notes/Flow Sheet

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 10901 | 1 | Invalid value |
| 10902 | 2 | Field cannot be blank |
| 10903 | 3 | Warning: SBP value exceeds the max of 300 |
| 10905 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 10906 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 10907 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_29

## ANGIOGRAPHY

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

First interventional angiogram with or without embolization within first 24 hours of ED/Hospital arrival.

### Field Values

1. None
2. Angiogram only
3. Angiogram with embolization

### Additional Information

- Limit collection of angiography data to first 24 hours following ED/hospital arrival.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Excludes CTA.

### Data Source Hierarchy Guide

1. Radiology Report
2. Operative Report
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11701 | 1 | Value is not a valid menu option |
| 11702 | 2 | Field cannot be blank |
| 11703 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11704 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11705 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_30

## EMBOLIZATION SITE

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Organ / site of embolization for hemorrhage control.

### Field Values

1. Liver
2. Spleen
3. Kidneys
4. Pelvic (iliac, gluteal, obturator)
5. Retroperitoneum (lumbar, sacral)
6. Peripheral vascular (neck, extremities)
7. Aorta (thoracic or abdominal)
8. Other

### Additional Information

- The null value "Not Applicable" is used if the data field Angiography is "1. None" or "2. Angiogram Only."
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Check all that apply.

### Data Source Hierarchy Guide

1. Radiology Report
2. Operative Report
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11801 | 1 | Value is not a valid menu option |
| 11802 | 2 | Field cannot be blank |
| 11803 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram with embolization' |
| 11804 | 2 | Field should be Not Applicable when Angiography is 'None' or 'Angiogram only' |

PM_31

## ANGIOGRAPHY DATE

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Date the first angiogram with or without embolization was performed.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- The null value "Not Applicable" is used if the data field Angiography is "1. None."
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

### Data Source Hierarchy Guide

1. Radiology Report
2. Operative Report
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 11901 | 1 | Date is not valid |
| 11902 | 1 | Date out of range |
| 11903 | 2 | Field cannot be blank |
| 11904 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram only' or 'Angiogram with embolization' |
| 11905 | 2 | Field should be Not Applicable when Angiography is 'None' |
| 11906 | 2 | Angiography Date is earlier than ED/Hospital Arrival Date |
| 11907 | 2 | Angiography Date is later than Hospital Discharge Date |
| 11908 | 3 | Angiography Date/Time minus ED/Hospital Arrival Date/Time is greater than 24 hours |

PM_32

## ANGIOGRAPHY TIME

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Time the first angiogram with or without embolization was performed.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- The null value "Not Applicable" is used if the data field Angiography is "1. None."
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

### Data Source Hierarchy Guide

1. Radiology Report
2. Operative Report
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12001 | 1 | Time is not valid |
| 12002 | 1 | Time out of range |
| 12003 | 2 | Field cannot be blank |
| 12004 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram only' or 'Angiogram with embolization' |
| 12005 | 2 | Field should be Not Applicable when Angiography is 'None' |
| 12006 | 2 | Angiography Time is earlier than ED/Hospital Arrival Time |
| 12007 | 2 | Angiography Time is later than Hospital Discharge Time |
| 12008 | 3 | Angiography Date/Time minus ED/Hospital Arrival Date/Time is greater than 24 hours |

PM_33

## SURGERY FOR HEMORRHAGE CONTROL TYPE

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

First type of surgery for hemorrhage control within the first 24 hours of ED/hospital arrival.

### Field Values

1. None
2. Laparotomy
3. Thoracotomy
4. Sternotomy
5. Extremity
6. Neck
7. Mangled extremity/traumatic amputation
8. Other skin/soft tissue

### Additional Information

- If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Field Value “1. None” is used if Surgery for Hemorrhage Control Type is not a listed Field Value option.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12101 | 1 | Value is not a valid menu option |
| 12102 | 2 | Field cannot be blank |
| 12103 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 12104 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 12105 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

PM_34

## SURGERY FOR HEMORRHAGE CONTROL DATE

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Date of first surgery for hemorrhage control within first 24 hours of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
- The null value "Not Applicable" is used if the data field Surgery for Hemorrhage Control Type is "1. None."
- The null value "Not Applicable" is used for patients that do not meet the collection criteria.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12201 | 1 | Date is not valid |
| 12202 | 1 | Date out of range |
| 12203 | 2 | Surgery For Hemorrhage Control Date is earlier than ED/Hospital Arrival Date |
| 12204 | 2 | Surgery For Hemorrhage Control Date is later than Hospital Discharge Date |
| 12205 | 2 | Field cannot be "Not Applicable" when Hemorrhage Control Surgery Type is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 12206 | 2 | Field should be Not Applicable when Hemorrhage Control Surgery Type is 'None' |
| 12207 | 2 | Field cannot be blank |

PM_35

## SURGERY FOR HEMORRHAGE CONTROL TIME

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

### Definition

Time of first surgery for hemorrhage control within first 24 hours of ED/hospital arrival.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
- The null value "Not Applicable" is used if the data field Surgery for Hemorrhage Control Type is "1. None."
- The null value "Not Applicable" is used for patients that do not meet the collection criteria.

### Data Source Hierarchy Guide

1. Operative Report
2. Procedure Notes
3. Progress Notes

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 12301 | 1 | Time is not valid |
| 12302 | 1 | Time out of range |
| 12303 | 2 | Surgery For Hemorrhage Control Time is earlier than ED/Hospital Arrival Time |
| 12304 | 2 | Surgery For Hemorrhage Control Time is later than Hospital Discharge Time |
| 12305 | 2 | Field cannot be "Not Applicable" when Hemorrhage Control Surgery Type is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 12306 | 2 | Field should be Not Applicable when Hemorrhage Control Surgery Type is 'None' |
| 12307 | 2 | Field cannot be blank |

PM_36

## WITHDRAWAL OF LIFE SUPPORTING TREATMENT

Collection Criterion: Collect on all patients

### Definition

Treatment was withdrawn based on a decision to either remove or withhold further life supporting intervention. This decision must be documented in the medical record and is often, but not always associated with a discussion with the legal next of kin.

### Field Values

1. Yes
2. No

### Additional Information

- DNR not a requirement.
- A note to limit escalation of treatment qualifies as a withdrawal of life supporting treatment. These interventions are limited to: ventilator support (with or without extubation), dialysis or other forms of renal support, institution of medications to support blood pressure or cardiac function, or a specific surgical, interventional or radiological procedure (e.g. decompressive craniectomy, operation for hemorrhage control, angiography). Note that this definition provides equal weight to the withdrawal of an intervention already in place (e.g. extubation) and a decision not to proceed with a life-supporting intervention (e.g. intubation).
- Excludes the discontinuation of CPR and typically involves prior planning.
- DNR order is not the same as withdrawal of life supporting treatment.
- The field value 'No' should be used for patients whose time of death, according to your Hospital's definition, was prior to the removal of any interventions or escalation of care.

### Data Source Hierarchy Guide

1. Physician Order
2. Progress Notes
3. Case Manager/Social Services Notes
4. Nursing Notes/Flow Sheet
5. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13801 | 1 | Value is not a valid menu option |
| 13802 | 2 | Field cannot be blank |
| 13803 | 2 | Field cannot be Not Applicable |

PM_37

## WITHDRAWAL OF LIFE SUPPORTING TREATMENT DATE

Collection Criterion: Collect on all patients

### Definition

The date treatment was withdrawn.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as YYYY-MM-DD.
- The null value "Not Applicable" is used for patients where Withdrawal of Life Supporting Treatment is "2. No."
- Record the date the first of any existing life-supporting intervention(s) is withdrawn (e.g. extubation). If no intervention(s) is in place, record the time the decision not to proceed with a life-supporting intervention(s) occurs (e.g. intubation).

### Data Source Hierarchy Guide

1. Physician Order
2. Progress Notes
3. Respiratory Therapy Notes/Flow Sheet
4. Case Manager/Social Services Notes
5. Nursing Notes/Flow Sheet
6. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 13901 | 1 | Date is not valid |
| 13902 | 1 | Date out of range |
| 13903 | 2 | Withdrawal of Life Supporting Treatment Date is earlier than ED/Hospital Arrival Date |
| 13904 | 2 | Withdrawal of Life Supporting Treatment Date is later than Hospital Discharge Date |
| 13905 | 2 | Field cannot be Not Applicable when Withdrawal of Life Supporting Treatment is 1 (Yes) |
| 13906 | 2 | Field should be Not Applicable when Withdrawal of Life Supporting Treatment is 2 (No) |
| 13907 | 2 | Field cannot be blank |

PM_38

## WITHDRAWAL OF LIFE SUPPORTING TREATMENT TIME

Collection Criterion: Collect on all patients

### Definition

The time treatment was withdrawn.

### Field Values

- Relevant value for data element

### Additional Information

- Collected as HH:MM military time.
- The null value "Not Applicable" is used for patients where Withdrawal of Life Supporting Treatment is "2. No."
- Record the time the first of any existing life-supporting intervention(s) is withdrawn (e.g. extubation). If no intervention(s) is in place, record the time the decision not to proceed with a life-supporting intervention(s) occurs (e.g. intubation).

### Data Source Hierarchy Guide

1. Physician Order
2. Progress Notes
3. Respiratory Therapy Notes/Flow Sheet
4. Case Manager/Social Services Notes
5. Nursing Notes/Flow Sheet
6. Discharge Summary

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 14001 | 1 | Time is not valid |
| 14002 | 1 | Time out of range |
| 14003 | 2 | Withdrawal of Life Supporting Treatment Time is earlier than ED/Hospital Arrival Time |
| 14004 | 2 | Withdrawal of Life Supporting Treatment Time is later than Hospital Discharge Time |
| 14005 | 2 | Field cannot be Not Applicable when Withdrawal of Life Supporting Treatment is 1 (Yes) |
| 14006 | 2 | Field should be Not Applicable when Withdrawal of Life Supporting Treatment is 2 (No) |
| 14007 | 2 | Field cannot be blank |

## SURGEON SPECIFIC REPORTING
## **The field(s) in this section are optional**

## NATIONAL PROVIDER IDENTIFIER (NPI)

SSR_01

### Definition

The National Provider Identifier (NPI) of the admitting surgeon.

### Field Values

- Relevant value for data element

### Additional Information

- This variable is considered optional and is not required as part of the NTDS dataset.
- Must be stored as a 10 digit numeric value.

### Data Source Hierarchy Guide

### Associated Edit Checks

| Rule ID | Level | Message |
|---|---|---|
| 9801 | 1 | Invalid value |
| 9802 | 2 | Field cannot be blank |

## Appendix 1: Account Center

### FACILITY CHARACTERISTICS

| VARIABLE | VALUES |
|---|---|
| Number of Hospital Beds Licensed - Adult | Numeric |
| Number of Hospital Beds Staffed - Adult | Numeric |
| Average Census – Adult | Numeric |
| Number of Hospital Beds Licensed – Pediatric | Numeric |
| Number of Hospital Beds Staffed – Pediatric | Numeric |
| Average Census - Pediatric | Numeric |
| ICU for Trauma | Numeric |
| Burn | Numeric |
| ICU for Burn | Numeric |
| Hospital Tax Status | For profit; Non-profit; Government |
| Hospital Teaching Status | University; Community; Non-teaching |
| Hospital Payer Mix | Numeric |

### PEDIATRICS

| VARIABLE | VALUES |
|---|---|
| Are you associated with a pediatric hospital? | Yes; No |
| Do you have a pediatric ward? | Yes; No |
| Do you have a pediatric ICU? | Yes; No |
| Do you transfer the most severely injured children to other specialty centers? | Yes; No |
| How do you provide care to injured children? | No children (Not Applicable); Provide all acute care services; Shared role with another center. |
| What is the oldest age for pediatric patients in your facility? | 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; or none |

### PERSONNEL

| VARIABLE | VALUES |
|---|---|
| Number of core trauma surgeons | Numeric |
| Number of orthopedic surgeons | Numeric |
| Number of neurosurgeons | Numeric |
| Number of data abstractors/trauma registrars | Numeric |
| Numbers of registrars that are certified | Numeric |

## Appendix 2: Edit Checks for the National Trauma Data Standard Data Elements

The flags described in this Appendix are those that are produced by the Validator when an NTDS XML file is checked. Each rule ID is assigned a flag level 1 – 4. Level 1 and 2 flags must be resolved or the entire file cannot be submitted to NTDB. Level 3 and 4 flags serve as recommendations to check data elements associated with the flags. However, level 3 and 4 flags do not necessarily indicate that data are incorrect.

The Flag Levels are defined as follows:

- **Level 1: Format / schema*** – any element that does not conform to the "rules" of the XSD. That is, these are errors that arise from XML data that cannot be parsed or would otherwise not be legal XML. Some errors in this Level do not have a Rule ID – for example: illegal tag, commingling of null values and actual data, out of range errors, etc.

- **Level 2: Inclusion criteria and/or critical to analyses*** – this level affects the fields needed to determine if the record meets the inclusion criteria for NTDB, or are required for critical analyses.

- **Level 3: Major logic** – data consistency checks related to variables commonly used for reporting. Examples include Arrival Date, E-code, etc.

- **Level 4: Minor logic** – data consistency checks (e.g. dates) and blank fields that are acceptable to create a "valid" XML record but may cause certain parts of the record to be excluded from analysis.

**Important Notes:**

- Any XML file submitted to NTDB that contains one or more Level 1 or 2 Flags will result in the entire file being rejected. These kinds of flags must be resolved before a submission will be accepted.

- *Facility ID, Patient ID* and *Last Modified Date/Time* are not described in the data dictionary and are only required in the XML file as control information for back-end NTDB processing. However, these fields are mandatory to provide in every XML record. Consult your Registry Vendor if one of these flags occurs.

## Demographic Information

### PATIENT'S HOME ZIP/POSTAL CODE

| Rule ID | Level | Message |
|---|---|---|
| 0001 | 1 | Invalid value |
| 0002 | 2 | Field cannot be blank |

### PATIENT'S HOME COUNTRY

| Rule ID | Level | Message |
|---|---|---|
| 0101 | 1 | Invalid value |
| 0102 | 2 | Field cannot be blank |
| 0104 | 2 | Field cannot be Not Applicable |
| 0105 | 2 | Field cannot be "Not Known/Not Recorded" when Home ZIP/Postal Code is not "Not Applicable" or "Not Known/Not Recorded" |

### PATIENT'S HOME STATE

| Rule ID | Level | Message |
|---|---|---|
| 0201 | 1 | Invalid value (US only) |
| 0202 | 2 | Field cannot be blank (US only) |
| 0204 | 2 | Field must be Not Applicable (Non-US) |

### PATIENT'S HOME COUNTY

| Rule ID | Level | Message |
|---|---|---|
| 0301 | 1 | Invalid value (US only) |
| 0302 | 2 | Field cannot be blank (US only) |
| 0304 | 2 | Field must be Not Applicable (Non-US) |

### PATIENT'S HOME CITY

| Rule ID | Level | Message |
|---|---|---|
| 0401 | 1 | Invalid value (US only) |
| 0402 | 2 | Field cannot be blank (US only) |
| 0404 | 2 | Field must be Not Applicable (Non-US) |

### ALTERNATE HOME RESIDENCE

| Rule ID | Level | Message |
|---|---|---|
| 0501 | 1 | Value is not a valid menu option |
| 0502 | 2 | Field cannot be blank |

### DATE OF BIRTH

| Rule ID | Level | Message |
|---|---|---|
| 0601 | 1 | Invalid value |
| 0602 | 1 | Date out of range |
| 0603 | 2 | Field cannot be blank |
| 0605 | 3 | Field should not be Not Known/Not Recorded |
| 0606 | 2 | Date of Birth is later than EMS Dispatch Date |
| 0607 | 2 | Date of Birth is later than EMS Unit Arrival on Scene Date |
| 0608 | 2 | Date of Birth is later than EMS Unit Scene Departure Date |
| 0609 | 2 | Date of Birth is later than Injury Date |
| 0610 | 2 | Date of Birth is later than ED Discharge Date |
| 0611 | 2 | Date of Birth is later than Hospital Discharge Date |
| 0612 | 2 | Date of Birth + 120 years must be less than Injury Date |
| 0613 | 2 | Field cannot be Not Applicable |

### AGE

| Rule ID | Level | Message |
|---|---|---|
| 0701 | 1 | Age is outside the valid range of 0 - 120 |
| 0703 | 2 | Field cannot be blank |
| 0704 | 3 | Injury Date minus Date of Birth should equal submitted Age as expressed in the Age Units specified. |
| 0705 | 4 | Age is greater than expected for the Age Units specified. Age should not exceed 60 minutes, 24 hours, 30 days, 24 months, or 120 years. Please verify this is correct. |
| 0707 | 2 | Field must be Not Applicable when Age Units is Not Applicable |
| 0708 | 2 | Field must be Not Known/Not Recorded when Age Units is Not Known/Not Recorded |

### AGE UNITS

| Rule ID | Level | Message |
|---|---|---|
| 0801 | 1 | Value is not a valid menu option |
| 0803 | 2 | Field cannot be blank |

| | | |
|---|---|---|
| 0805 | 2 | Field must be Not Applicable when Age is Not Applicable |
| 0806 | 2 | Field must be Not Known/Not Recorded when Age is Not Known/Not Recorded |

### RACE

| Rule ID | Level | Message |
|---|---|---|
| 0901 | 1 | Value is not a valid menu option |
| 0902 | 2 | Field cannot be blank |
| 0903 | 2 | Field cannot be Not Applicable (US only) |
| 0904 | 2 | Field must be Not Applicable (non-US) |

### ETHNICITY

| Rule ID | Level | Message |
|---|---|---|
| 1001 | 1 | Value is not a valid menu option |
| 1002 | 2 | Field cannot be blank |
| 1003 | 2 | Field cannot be Not Applicable (US only) |
| 1004 | 2 | Field must be Not Applicable (non-US) |

### SEX

| Rule ID | Level | Message |
|---|---|---|
| 1101 | 1 | Value is not a valid menu option |
| 1102 | 2 | Field cannot be blank |
| 1103 | 2 | Field cannot be Not Applicable |

## Injury Information

### INJURY INCIDENT DATE

| Rule ID | Level | Message |
|---|---|---|
| 1201 | 1 | Date is not valid |
| 1202 | 1 | Date out of range |
| 1203 | 2 | Field cannot be blank |
| 1204 | 4 | Injury Incident Date is earlier than Date of Birth |
| 1205 | 4 | Injury Incident Date is later than EMS Dispatch Date |
| 1206 | 4 | Injury Incident Date is later than EMS Unit Arrival on Scene Date |
| 1207 | 4 | Injury Incident Date is later than EMS Unit Scene Departure Date |
| 1208 | 4 | Injury Incident Date is later than ED/Hospital Arrival Date |
| 1209 | 4 | Injury Incident Date is later than ED Discharge Date |

| | | |
|---|---|---|
| 1210 | 4 | Injury Incident Date is later than Hospital Discharge Date |
| 1211 | 2 | Field cannot be Not Applicable |

### INJURY INCIDENT TIME

| Rule ID | Level | Message |
|---|---|---|
| 1301 | 1 | Time is not valid |
| 1302 | 1 | Time out of range |
| 1303 | 2 | Field cannot be blank |
| 1304 | 4 | Injury Incident Time is later than EMS Dispatch Time |
| 1305 | 4 | Injury Incident Time is later than EMS Unit Arrival on Scene Time |
| 1306 | 4 | Injury Incident Time is later than EMS Unit Scene Departure Time |
| 1307 | 4 | Injury Incident Time is later than ED/Hospital Arrival Time |
| 1308 | 4 | Injury Incident Time is later than ED Discharge Time |
| 1309 | 4 | Injury Incident Time is later than Hospital Discharge Time |
| 1310 | 2 | Field cannot be Not Applicable |

### WORK-RELATED

| Rule ID | Level | Message |
|---|---|---|
| 1401 | 1 | Value is not a valid menu option |
| 1402 | 2 | Field cannot be blank |
| 1405 | 4 | Work-Related should be 1 (Yes) when Patient's Occupation is not "Not Applicable" or "Not Known/Not Recorded" |
| 1406 | 4 | Work-Related should be 1 (Yes) when Patient's Occupational Industry is not "Not Applicable" or "Not Known/Not Recorded" |
| 1407 | 2 | Field cannot be Not Applicable |

### PATIENT'S OCCUPATIONAL INDUSTRY

| Rule ID | Level | Message |
|---|---|---|
| 1501 | 1 | Value is not a valid menu option |
| 1504 | 2 | Field cannot be blank |

### PATIENT'S OCCUPATION

| Rule ID | Level | Message |
|---|---|---|
| 1601 | 1 | Value is not a valid menu option |
| 1604 | 2 | Field cannot be blank |

### ICD-10 PRIMARY EXTERNAL CAUSE CODE

| Rule ID | Level | Message |
|---|---|---|
| 8901 | 1 | E-Code is not a valid ICD-10-CM code (ICD-10 CM only) |
| 8902 | 2 | Field cannot be blank |
| 8904 | 2 | Should not be Y92.X/Y92.XX/Y92.XXX (where X is A-Z or 0-9) (ICD-10 CM only) |
| 8905 | 3 | ICD-10 External Cause Code should not be Y93.X/Y93.XX (where X is A-Z or 0-9) (ICD-10 CM only) |
| 8906 | 1 | E-Code is not a valid ICD-10-CA code (ICD-10 CA only) |
| 8907 | 2 | Field cannot be Not Applicable |

### ICD-10 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE

| Rule ID | Level | Message |
|---|---|---|
| 9001 | 1 | Invalid value (ICD-10 CM only) |
| 9002 | 2 | Field cannot be blank |
| 9003 | 3 | Place of Injury code should be Y92.X/Y92.XX/Y92.XXX (where X is A-Z [excluding I,O] or 0-9) (ICD-10 CM only) |
| 9004 | 1 | Invalid value (ICD-10 CA only) |
| 9005 | 3 | Place of Injury code should be U98X (where X is 0-9) (ICD-10 CA only) |
| 9006 | 2 | Field cannot be Not Applicable |

### ICD-10 ADDITIONAL EXTERNAL CAUSE CODE

| Rule ID | Level | Message |
|---|---|---|
| 9101 | 1 | E-Code is not a valid ICD-10-CM code (ICD-10 CM only) |
| 9102 | 4 | Additional External Cause Code ICD-10 should not be equal to Primary External Cause Code ICD-10 |
| 9103 | 2 | Field cannot be blank |
| 9104 | 1 | E-Code is not a valid ICD-10-CA code (ICD-10 CA only) |

### INCIDENT LOCATION ZIP/POSTAL CODE

| Rule ID | Level | Message |
|---|---|---|
| 2001 | 1 | Invalid value |
| 2002 | 2 | Field cannot be blank |
| 2006 | 2 | Field cannot be Not Applicable |

### INCIDENT COUNTRY

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 2101 | 1 | Invalid value |
| 2102 | 2 | Field cannot be blank |
| 2104 | 2 | Field cannot be Not Applicable |
| 2105 | 2 | Field cannot be "Not Known/Not Recorded" when Incident Location ZIP/Postal Code is not "Not Known/Not Recorded" |

### INCIDENT STATE

| Rule ID | Level | Message |
|---|---|---|
| 2201 | 1 | Invalid value (US only) |
| 2203 | 2 | Field cannot be blank |
| 2204 | 2 | Field must be Not Applicable (Non-US) |

### INCIDENT COUNTY

| Rule ID | Level | Message |
|---|---|---|
| 2301 | 1 | Invalid value (US only) |
| 2303 | 2 | Field cannot be blank |
| 2304 | 2 | Field must be Not Applicable (Non-US) |

### INCIDENT CITY

| Rule ID | Level | Message |
|---|---|---|
| 2401 | 1 | Invalid value (US only) |
| 2403 | 2 | Field cannot be blank |
| 2404 | 2 | Field must be Not Applicable (Non-US) |

### PROTECTIVE DEVICES

| Rule ID | Level | Message |
|---|---|---|
| 2501 | 1 | Value is not a valid menu option |
| 2502 | 2 | Field cannot be blank |
| 2505 | 3 | Protective Device should be 6 (Child Restraint) when Child Specific Restraint is not "Not Applicable" or "Not Known/Not Recorded" |
| 2506 | 3 | Protective Device should be 8 (Airbag Present) when Airbag Deployment is not "Not Applicable" or "Not Known/Not Recorded" |
| 2507 | 2 | Field cannot be Not Applicable |

### CHILD SPECIFIC RESTRAINT

| Rule ID | Level | Message |
|---|---|---|
| 2601 | 1 | Value is not a valid menu option |
| 2603 | 2 | Field cannot be blank |
| 2604 | 2 | Field cannot be Not Applicable when Protective Device is 6 (Child Restraint) |

### AIRBAG DEPLOYMENT

| Rule ID | Level | Message |
|---|---|---|
| 2701 | 1 | Value is not a valid menu option |
| 2703 | 2 | Field cannot be blank |
| 2704 | 2 | Field cannot be Not Applicable when Protective Device is 8 (Airbag Present) |

### REPORT OF PHYSICAL ABUSE

| Rule ID | Level | Message |
|---|---|---|
| 9201 | 1 | Value is not a valid menu option |
| 9202 | 2 | Field cannot be Not Applicable |
| 9203 | 2 | Field cannot be blank |

### INVESTIGATION OF PHYSICAL ABUSE

| Rule ID | Level | Message |
|---|---|---|
| 9301 | 1 | Value is not a valid menu option |
| 9302 | 2 | Field cannot be blank |
| 9303 | 3 | Field should not be Not Applicable when Report of Physical Abuse = 1 (Yes) |

### CAREGIVER AT DISCHARGE

| Rule ID | Level | Message |
|---|---|---|
| 9401 | 1 | Value is not a valid menu option |
| 9402 | 2 | Field cannot be blank |

## Pre-hospital Information

### EMS DISPATCH DATE

| Rule ID | Level | Message |
|---|---|---|
| 2801 | 1 | Date is not valid |
| 2802 | 1 | Date out of range |
| 2803 | 3 | EMS Dispatch Date is earlier than Date of Birth |

| | | |
|---|---|---|
| 2804 | 4 | EMS Dispatch Date is later than EMS Unit Arrival on Scene Date |
| 2805 | 4 | EMS Dispatch Date is later than EMS Unit Scene Departure Date |
| 2806 | 3 | EMS Dispatch Date is later than ED/Hospital Arrival Date |
| 2807 | 4 | EMS Dispatch Date is later than ED Discharge Date |
| 2808 | 3 | EMS Dispatch Date is later than Hospital Discharge Date |
| 2809 | 2 | Field cannot be blank |

### EMS DISPATCH TIME

| Rule ID | Level | Message |
|---|---|---|
| 2901 | 1 | Time is not valid |
| 2902 | 1 | Time out of range |
| 2903 | 4 | EMS Dispatch Time is later than EMS Unit Arrival on Scene Time |
| 2904 | 4 | EMS Dispatch Time is later than EMS Unit Scene Departure Time |
| 2905 | 4 | EMS Dispatch Time is later than ED/Hospital Arrival Time |
| 2906 | 4 | EMS Dispatch Time is later than ED Discharge Time |
| 2907 | 4 | EMS Dispatch Time is later than Hospital Discharge Time |
| 2908 | 2 | Field cannot be blank |

### EMS UNIT ARRIVAL DATE AT SCENE OR TRANSFERRING FACILITY

| Rule ID | Level | Message |
|---|---|---|
| 3001 | 1 | Date is not valid |
| 3002 | 1 | Date out of range |
| 3003 | 3 | EMS Unit Arrival on Scene Date is earlier than Date of Birth |
| 3004 | 4 | EMS Unit Arrival on Scene Date is earlier than EMS Dispatch Date |
| 3005 | 4 | EMS Unit Arrival on Scene Date is later than EMS Unit Scene Departure Date |
| 3006 | 3 | EMS Unit Arrival on Scene Date is later than ED/Hospital Arrival Date |
| 3007 | 4 | EMS Unit Arrival on Scene Date is later than ED Discharge Date |
| 3008 | 3 | EMS Unit Arrival on Scene Date is later than Hospital Discharge Date |
| 3009 | 3 | EMS Unit Arrival on Scene Date minus EMS Dispatch Date is greater than 7 days |
| 3010 | 2 | Field cannot be blank |

### EMS UNIT ARRIVAL TIME AT SCENE OR TRANSFERRING FACILITY

| Rule ID | Level | Message |
|---|---|---|
| 3101 | 1 | Time is not valid |
| 3102 | 1 | Time out of range |
| 3103 | 4 | EMS Unit Arrival on Scene Time is earlier than EMS Dispatch Time |

| | | |
|---|---|---|
| 3104 | 4 | EMS Unit Arrival on Scene Time is later than EMS Unit Scene Departure Time |
| 3105 | 4 | EMS Unit Arrival on Scene Time is later than ED/Hospital Arrival Time |
| 3106 | 4 | EMS Unit Arrival on Scene Time is later than ED Discharge Time |
| 3107 | 4 | EMS Unit Arrival on Scene Time is later than Hospital Discharge Time |
| 3108 | 2 | Field cannot be blank |

### EMS UNIT DEPARTURE DATE FROM SCENE OR TRANSFERRING FACILITY

| Rule ID | Level | Message |
|---|---|---|
| 3201 | 1 | Date is not valid |
| 3202 | 1 | Date out of range |
| 3203 | 3 | EMS Unit Scene Departure Date is earlier than Date of Birth |
| 3204 | 4 | EMS Unit Scene Departure Date is earlier than EMS Dispatch Date |
| 3205 | 4 | EMS Unit Scene Departure Date is earlier than EMS Unit Arrival on Scene Date |
| 3206 | 3 | EMS Unit Scene Departure Date is later than ED/Hospital Arrival Date |
| 3207 | 4 | EMS Unit Scene Departure Date is later than ED Discharge Date |
| 3208 | 3 | EMS Unit Scene Departure Date is later than Hospital Discharge Date |
| 3209 | 3 | EMS Unit Scene Departure Date minus EMS Unit Arrival on Scene Date is greater than 7 days |
| 3210 | 2 | Field cannot be blank |

### EMS UNIT DEPARTURE TIME FROM SCENE OR TRANSFERRING FACILITY

| Rule ID | Level | Message |
|---|---|---|
| 3301 | 1 | Time is not valid |
| 3302 | 1 | Time out of range |
| 3303 | 4 | EMS Unit Scene Departure Time is earlier than EMS Dispatch Time |
| 3304 | 4 | EMS Unit Scene Departure Time is earlier than EMS Unit Arrival on Scene Time |
| 3305 | 4 | EMS Unit Scene Departure Time is later than ED/Hospital Arrival Time |
| 3306 | 4 | EMS Unit Scene Departure Time is later than the ED Discharge Time |
| 3307 | 4 | EMS Unit Scene Departure Time is later than Hospital Discharge Time |
| 3308 | 2 | Field cannot be blank |

### TRANSPORT MODE

| Rule ID | Level | Message |
|---|---|---|
| 3401 | 1 | Value is not a valid menu option |
| 3402 | 2 | Field cannot be blank |
| 3403 | 4 | Transport Mode should not be 4 (Private/Public Vehicle/Walk-in) when EMS |

| | | |
|---|---|---|
| | | response times are not "Not Applicable" or "Not Known/Not Recorded" |
| 3404 | 2 | Field cannot be Not Applicable |

### OTHER TRANSPORT MODE

| Rule ID | Level | Message |
|---|---|---|
| 3501 | 1 | Value is not a valid menu option |
| 3502 | 2 | Field cannot be blank |

### INITIAL FIELD SYSTOLIC BLOOD PRESSURE

| Rule ID | Level | Message |
|---|---|---|
| 3601 | 1 | Invalid value |
| 3602 | 2 | Field cannot be blank |
| 3603 | 3 | SBP exceeds the max of 300 |

### INITIAL FIELD PULSE RATE

| Rule ID | Level | Message |
|---|---|---|
| 3701 | 1 | Invalid value |
| 3702 | 2 | Field cannot be blank |
| 3703 | 3 | Pulse rate exceeds the max of 299 |

### INITIAL FIELD RESPIRATORY RATE

| Rule ID | Level | Message |
|---|---|---|
| 3801 | 1 | Invalid value. RR cannot be > 99 for age in years >= 6 OR RR cannot be > 120 for age in years < 6. If age and age units are not valued, RR cannot be > 120. |
| 3802 | 2 | Field cannot be blank |
| 3803 | 3 | Invalid, out of range. RR cannot be > 99 and <=120 for age in years < 6. If age and age units are not valued, RR cannot be > 99. |

### INITIAL FIELD OXYGEN SATURATION

| Rule ID | Level | Message |
|---|---|---|
| 3901 | 1 | Pulse oximetry is outside the valid range of 0 - 100 |
| 3902 | 2 | Field cannot be blank |

### INITIAL FIELD GCS - EYE

| Rule ID | Level | Message |
|---|---|---|
| 4001 | 1 | Value is not a valid menu option |

| | | |
|---|---|---|
| 4003 | 2 | Field cannot be blank |

### INITIAL FIELD GCS - VERBAL

| Rule ID | Level | Message |
|---|---|---|
| 4101 | 1 | Value is not a valid menu option |
| 4103 | 2 | Field cannot be blank |

### INITIAL FIELD GCS - MOTOR

| Rule ID | Level | Message |
|---|---|---|
| 4201 | 1 | Value is not a valid menu option |
| 4203 | 2 | Field cannot be blank |

### INITIAL FIELD GCS - TOTAL

| Rule ID | Level | Message |
|---|---|---|
| 4301 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 4303 | 4 | Initial Field GCS - Total does not equal the sum of Initial Field GCS - Eye, Initial Field GCS - Verbal, and Initial Field GCS - Motor |
| 4304 | 2 | Field cannot be blank |

### INTER-FACILITY TRANSFER

| Rule ID | Level | Message |
|---|---|---|
| 4401 | 2 | Field cannot be blank |
| 4402 | 1 | Value is not a valid menu option |
| 4404 | 3 | Field should not be Not Known/Not Recorded |
| 4405 | 2 | Field cannot be Not Applicable |

### TRAUMA CENTER CRITERIA

| Rule ID | Level | Message |
|---|---|---|
| 9501 | 1 | Value is not a valid menu option |
| 9502 | 2 | Field cannot be blank |

### VEHICULAR, PEDESTRIAN, OTHER RISK INJURY

| Rule ID | Level | Message |
|---|---|---|
| 9601 | 1 | Value is not a valid menu option |

| | | |
|---|---|---|
| 9602 | 2 | Field cannot be blank |

### PRE-HOSPITAL CARDIAC ARREST

| Rule ID | Level | Message |
|---|---|---|
| 9701 | 1 | Value is not a valid menu option |
| 9702 | 2 | Field cannot be blank |
| 9703 | 2 | Field cannot be Not Applicable |

## Emergency Department Information

### ED/HOSPITAL ARRIVAL DATE

| Rule ID | Level | Message |
|---|---|---|
| 4501 | 1 | Date is not valid |
| 4502 | 1 | Date out of range |
| 4503 | 2 | Field cannot be blank |
| 4505 | 2 | Field cannot be Not Known/Not Recorded |
| 4506 | 3 | ED/Hospital Arrival Date is earlier than EMS Dispatch Date |
| 4507 | 3 | ED/Hospital Arrival Date is earlier than EMS Unit Arrival on Scene Date |
| 4508 | 3 | ED/Hospital Arrival Date is earlier than EMS Unit Scene Departure Date |
| 4509 | 2 | ED/Hospital Arrival Date is later than ED Discharge Date |
| 4510 | 2 | ED/Hospital Arrival Date is later than Hospital Discharge Date |
| 4511 | 3 | ED/Hospital Arrival Date is earlier than Date of Birth |
| 4512 | 3 | ED/Hospital Arrival Date should be after 1993 |
| 4513 | 3 | ED/Hospital Arrival Date minus Injury Incident Date should be less than 30 days |
| 4514 | 3 | ED/Hospital Arrival Date minus EMS Dispatch Date is greater than 7 days |
| 4515 | 2 | Field cannot be Not Applicable |

### ED/HOSPITAL ARRIVAL TIME

| Rule ID | Level | Message |
|---|---|---|
| 4601 | 1 | Time is not valid |
| 4602 | 1 | Time out of range |
| 4603 | 2 | Field cannot be blank |
| 4604 | 4 | ED/Hospital Arrival Time is earlier than EMS Dispatch Time |
| 4605 | 4 | ED/Hospital Arrival Time is earlier than EMS Unit Arrival on Scene Time |
| 4606 | 4 | ED/Hospital Arrival Time is earlier than EMS Unit Scene Departure Time |
| 4607 | 4 | ED/Hospital Arrival Time is later than ED Discharge Time |

| | | |
|---|---|---|
| 4608 | 4 | ED/Hospital Arrival Time is later than Hospital Discharge Time |
| 4609 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

| Rule ID | Level | Message |
|---|---|---|
| 4701 | 1 | Invalid value |
| 4702 | 2 | Field cannot be blank |
| 4704 | 3 | SBP value exceeds the max of 300 |
| 4705 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL PULSE RATE

| Rule ID | Level | Message |
|---|---|---|
| 4801 | 1 | Invalid value |
| 4802 | 2 | Field cannot be blank |
| 4804 | 3 | Pulse rate exceeds the max of 299 |
| 4805 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL TEMPERATURE

| Rule ID | Level | Message |
|---|---|---|
| 4901 | 1 | Invalid value |
| 4902 | 2 | Field cannot be blank |
| 4903 | 3 | Temperature exceeds the max of 45.0 Celsius |
| 4904 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL RESPIRATORY RATE

| Rule ID | Level | Message |
|---|---|---|
| 5001 | 1 | Invalid value. RR cannot be > 99 for age in years >= 6 OR RR cannot be > 120 for age in years < 6. If age and age units are not valued, RR cannot be > 120. |
| 5002 | 2 | Field cannot be blank |
| 5005 | 3 | Invalid, out of range. RR cannot be > 99 and <=120 for age in years < 6. If age and age units are not valued, RR cannot be > 99. |
| 5006 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL RESPIRATORY ASSISTANCE

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 5101 | 1 | Value is not a valid menu option |
| 5102 | 2 | Field cannot be blank |

### INITIAL ED/HOSPITAL OXYGEN SATURATION

| Rule ID | Level | Message |
|---|---|---|
| 5201 | 1 | Pulse oximetry is outside the valid range of 0 - 100 |
| 5202 | 2 | Field cannot be blank |
| 5205 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL SUPPLEMENTAL OXYGEN

| Rule ID | Level | Message |
|---|---|---|
| 5301 | 1 | Value is not a valid menu option |
| 5303 | 2 | Field cannot be blank |

### INITIAL ED/HOSPITAL GCS - EYE

| Rule ID | Level | Message |
|---|---|---|
| 5401 | 1 | Value is not a valid menu option |
| 5403 | 2 | Field cannot be blank |
| 5404 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL GCS - VERBAL

| Rule ID | Level | Message |
|---|---|---|
| 5501 | 1 | Value is not a valid menu option |
| 5503 | 2 | Field cannot be blank |
| 5504 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL GCS - MOTOR

| Rule ID | Level | Message |
|---|---|---|
| 5601 | 1 | Value is not a valid menu option |
| 5603 | 2 | Field cannot be blank |
| 5604 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL GCS - TOTAL

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 5701 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 5703 | 4 | Initial ED/Hospital GCS - Total does not equal the sum of Initial ED/Hospital GCS - Eye, Initial ED/Hospital GCS - Verbal, and Initial ED/Hospital GCS - Motor |
| 5705 | 2 | Field cannot be blank |
| 5706 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL GCS ASSESSMENT QUALIFIERS

| Rule ID | Level | Message |
|---|---|---|
| 5801 | 1 | Value is not a valid menu option |
| 5802 | 2 | Field cannot be blank |
| 5803 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL HEIGHT

| Rule ID | Level | Message |
|---|---|---|
| 8501 | 1 | Invalid value |
| 8502 | 2 | Field cannot be blank |
| 8503 | 3 | Height exceeds the max of 244 (cm) |
| 8504 | 2 | Field cannot be Not Applicable |

### INITIAL ED/HOSPITAL WEIGHT

| Rule ID | Level | Message |
|---|---|---|
| 8601 | 1 | Invalid value |
| 8602 | 2 | Field cannot be blank |
| 8603 | 3 | Weight exceeds the max of 907 (kg) |
| 8604 | 2 | Field cannot be Not Applicable |

### DRUG SCREEN

| Rule ID | Level | Message |
|---|---|---|
| 6011 | 1 | Value is not a valid menu option |
| 6012 | 2 | Field cannot be blank |
| 6013 | 2 | Field cannot be Not Applicable |

### ALCOHOL SCREEN

| Rule ID | Level | Message |
|---|---|---|
| 5911 | 1 | Value is not a valid menu option |

| | | |
|---|---|---|
| 5912 | 2 | Field cannot be blank |
| 5913 | 2 | Field cannot be Not Applicable |

### ALCOHOL SCREEN RESULTS

| Rule ID | Level | Message |
|---|---|---|
| 5931 | 1 | Invalid value |
| 5932 | 2 | Field cannot be blank |
| 5933 | 2 | Field cannot be Not Applicable when Alcohol Screen is 1 (Yes) |

### ED DISCHARGE DISPOSITION

| Rule ID | Level | Message |
|---|---|---|
| 6101 | 1 | Value is not a valid menu option |
| 6102 | 2 | Field cannot be blank |
| 6104 | 2 | Field cannot be Not Known/Not Recorded |
| 6106 | 2 | Field cannot not be Not Applicable when Hospital Discharge Date is Not Applicable |
| 6107 | 2 | Field cannot not be Not Applicable when Hospital Discharge Date is Not Known/Not Recorded |
| 6108 | 2 | Field cannot not be Not Applicable when Hospital Discharge Disposition is Not Applicable |
| 6109 | 2 | Field cannot not be Not Applicable when Hospital Discharge Disposition is Not Known/Not Recorded |

### SIGNS OF LIFE

| Rule ID | Level | Message |
|---|---|---|
| 6201 | 1 | Value is not a valid menu option |
| 6202 | 2 | Field cannot be blank |
| 6206 | 3 | Field should not be Not Known/Not Recorded |
| 6207 | 2 | Field cannot be Not Applicable |
| 6208 | 3 | Field is 1 (Arrived with NO signs of life) when Initial ED/Hospital SBP > 0, Pulse > 0, OR GCS Motor > 1. Please verify. |
| 6209 | 3 | Field is 2 (Arrived with signs of life) when Initial ED/Hospital SBP = 0, Pulse = 0, AND GCS Motor = 1. Please verify. |

### ED DISCHARGE DATE

| Rule ID | Level | Message |
|---|---|---|
| 6301 | 1 | Date is not valid |

| | | |
|---|---|---|
| 6302 | 1 | Date out of range |
| 6303 | 2 | Field cannot be blank |
| 6304 | 4 | ED Discharge Date is earlier than EMS Dispatch Date |
| 6305 | 4 | ED Discharge Date is earlier than EMS Unit Arrival on Scene Date |
| 6306 | 4 | ED Discharge Date is earlier than EMS Unit Scene Departure Date |
| 6307 | 2 | ED Discharge Date is earlier than ED/Hospital Arrival Date |
| 6308 | 2 | ED Discharge Date is later than Hospital Discharge Date |
| 6309 | 3 | ED Discharge Date is earlier than Date of Birth |
| 6310 | 3 | ED Discharge Date minus ED/Hospital Arrival Date is greater than 365 days |

### ED DISCHARGE TIME

| Rule ID | Level | Message |
|---|---|---|
| 6401 | 1 | Time is not valid |
| 6402 | 1 | Time out of range |
| 6403 | 2 | Field cannot be blank |
| 6404 | 4 | ED Discharge Time is earlier than EMS Dispatch Time |
| 6405 | 4 | ED Discharge Time is earlier than EMS Unit Arrival on Scene Time |
| 6406 | 4 | ED Discharge Time is earlier than EMS Unit Scene Departure Time |
| 6407 | 4 | ED Discharge Time is earlier than ED/Hospital Arrival Time |
| 6408 | 4 | ED Discharge Time is later than Hospital Discharge Time |

## Hospital Procedure Information

### ICD-10 HOSPITAL PROCEDURES

| Rule ID | Level | Message |
|---|---|---|
| 8801 | 1 | Invalid value (ICD-10 CM only) |
| 8802 | 1 | Procedures with the same code cannot have the same Hospital Procedure Start Date and Time |
| 8803 | 2 | Field cannot be blank |
| 8804 | 4 | Field should not be Not Applicable unless patient had no procedures performed |
| 8805 | 1 | Invalid value (ICD-10 CA only) |

### HOSPITAL PROCEDURE START DATE

| Rule ID | Level | Message |
|---|---|---|
| 6601 | 1 | Date is not valid |
| 6602 | 1 | Date out of range |
| 6603 | 4 | Hospital Procedure Start Date is earlier than EMS Dispatch Date |

| | | |
|---|---|---|
| 6604 | 4 | Hospital Procedure Start Date is earlier than EMS Unit Arrival on Scene Date |
| 6605 | 4 | Hospital Procedure Start Date is earlier than EMS Unit Scene Departure Date |
| 6606 | 4 | Hospital Procedure Start Date is earlier than ED/Hospital Arrival Date |
| 6607 | 4 | Hospital Procedure Start Date is later than Hospital Discharge Date |
| 6608 | 4 | Hospital Procedure Start Date is earlier than Date of Birth |
| 6609 | 2 | Field cannot be blank |

### HOSPITAL PROCEDURE START TIME

| Rule ID | Level | Message |
|---|---|---|
| 6701 | 1 | Time is not valid |
| 6702 | 1 | Time out of range |
| 6703 | 4 | Hospital Procedure Start Time is earlier than EMS Dispatch Time |
| 6704 | 4 | Hospital Procedure Start Time is earlier than EMS Unit Arrival on Scene Time |
| 6705 | 4 | Hospital Procedure Start Time is earlier than EMS Unit Scene Departure Time |
| 6706 | 4 | Hospital Procedure Start Time is earlier than ED/Hospital Arrival Time |
| 6707 | 4 | Hospital Procedure Start Time is later than Hospital Discharge Time |
| 6708 | 2 | Field cannot be blank |

## Diagnosis Information

### CO-MORBID CONDITIONS

| Rule ID | Level | Message |
|---|---|---|
| 6801 | 1 | Value is not a valid menu option |
| 6802 | 2 | Field cannot be blank |

### ICD-10 INJURY DIAGNOSES

| Rule ID | Level | Message |
|---|---|---|
| 8701 | 1 | Invalid value (ICD-10 CM only) |
| 8702 | 2 | Field cannot be blank |
| 8703 | 2 | At least one diagnosis must be provided and meet inclusion criteria. (ICD-10 CM only) |
| 8704 | 4 | Field should not be Not Known/Not Recorded |
| 8705 | 1 | Invalid value (ICD-10 CA only) |
| 8706 | 2 | At least one diagnosis must be provided and meet inclusion criteria. (ICD-10 CA only) |

## Injury Severity Information

### AIS PREDOT CODE

| Rule ID | Level | Message |
|---|---|---|
| 7001 | 1 | Invalid value |
| 7004 | 3 | AIS codes submitted are not valid AIS 05, Update 08 codes |
| 7007 | 2 | Field cannot be blank |
| 7008 | 2 | Field cannot be Not Applicable |

### AIS SEVERITY

| Rule ID | Level | Message |
|---|---|---|
| 7101 | 1 | Value is not a valid menu option |
| 7103 | 2 | Field cannot be blank |
| 7104 | 2 | Field cannot be Not Applicable |

### AIS VERSION

| Rule ID | Level | Message |
|---|---|---|
| 7301 | 1 | Value is not a valid menu option |
| 7302 | 2 | Field cannot be blank |
| 7303 | 2 | Field cannot be Not Applicable |

## Outcome Information

### TOTAL ICU LENGTH OF STAY

| Rule ID | Level | Message |
|---|---|---|
| 7501 | 1 | Total ICU Length of Stay is outside the valid range of 1 - 575 |
| 7502 | 2 | Field cannot be blank |
| 7503 | 3 | Total ICU Length of Stay is greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date |
| 7504 | 3 | Value is greater than 365, please verify this is correct |

### TOTAL VENTILATOR DAYS

| Rule ID | Level | Message |
|---|---|---|
| 7601 | 1 | Total Ventilator Days is outside the valid range of 1 - 575 |
| 7602 | 2 | Field cannot be blank |

| | | |
|---|---|---|
| 7603 | 4 | Total Ventilator Days should not be greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date |
| 7604 | 4 | Value is greater than 365, please verify this is correct |

### HOSPITAL DISCHARGE DATE

| Rule ID | Level | Message |
|---|---|---|
| 7701 | 1 | Date is not valid |
| 7702 | 1 | Date out of range |
| 7703 | 2 | Field cannot be blank |
| 7704 | 3 | Hospital Discharge Date is earlier than EMS Dispatch Date |
| 7705 | 3 | Hospital Discharge Date is earlier than EMS Unit Arrival on Scene Date |
| 7706 | 3 | Hospital Discharge Date is earlier than EMS Unit Scene Departure Date |
| 7707 | 2 | Hospital Discharge Date is earlier than ED/Hospital Arrival Date |
| 7708 | 2 | Hospital Discharge Date is earlier than ED Discharge Date |
| 7709 | 3 | Hospital Discharge Date is earlier than Date of Birth |
| 7710 | 3 | Hospital Discharge Date minus Injury Incident Date is greater than 365 days, please verify this is correct |
| 7711 | 3 | Hospital Discharge Date minus ED/Hospital Arrival Date is greater than 365 days, please verify this is correct |
| 7712 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |
| 7713 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |

### HOSPITAL DISCHARGE TIME

| Rule ID | Level | Message |
|---|---|---|
| 7801 | 1 | Time is not valid |
| 7802 | 1 | Time out of range |
| 7803 | 2 | Field cannot be blank |
| 7804 | 4 | Hospital Discharge Time is earlier than EMS Dispatch Time |
| 7805 | 4 | Hospital Discharge Time is earlier than EMS Unit Arrival on Scene Time |
| 7806 | 4 | Hospital Discharge Time is earlier than EMS Unit Scene Departure Time |
| 7807 | 4 | Hospital Discharge Time is earlier than ED/Hospital Arrival Time |
| 7808 | 4 | Hospital Discharge Time is earlier than ED Discharge Time |
| 7809 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |
| 7810 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |

### HOSPITAL DISCHARGE DISPOSITION

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 7901 | 1 | Value is not a valid menu option |
| 7902 | 2 | Field cannot be blank |
| 7903 | 2 | Field must be Not Applicable when ED Discharge Disposition = 5 (Died) |
| 7907 | 2 | Field must be Not Applicable when ED Discharge Disposition = 4,6,9,10, or 11 |
| 7908 | 2 | Field cannot be Not Applicable |
| 7909 | 2 | Field cannot be "Not Known/Not Recorded" when Hospital Arrival Date and Hospital Discharge Date are not "Not Applicable" or "Not Known/Not Recorded" |

## Financial Information

### PRIMARY METHOD OF PAYMENT

| Rule ID | Level | Message |
|---|---|---|
| 8001 | 1 | Value is not a valid menu option |
| 8002 | 2 | Field cannot be blank |
| 8003 | 2 | Field cannot be Not Applicable |

## Hospital Complications Information

### HOSPITAL COMPLICATIONS

| Rule ID | Level | Message |
|---|---|---|
| 8101 | 1 | Value is not a valid menu option |
| 8102 | 2 | Field cannot be blank |
| 8103 | 3 | Hospital Complications include Ventilator Associated Pneumonia although Total Ventilator Days is Not Applicable. Please verify. |

## TQIP Measures for Processes of Care

### HIGHEST GCS TOTAL

| Rule ID | Level | Message |
|---|---|---|
| 10001 | 1 | GCS Total is outside the valid range of 3 - 15 |
| 10002 | 2 | Field cannot be blank |
| 10003 | 2 | Highest GCS Total is less than GCS Motor Component of Highest GCS Total |
| 10004 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10005 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### HIGHEST GCS MOTOR

| Rule ID | Level | Message |
|---|---|---|
| 10101 | 1 | Value is not a valid menu option |
| 10102 | 2 | Field cannot be blank |
| 10104 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10105 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### GCS ASSESSMENT QUALIFIER COMPONENT OF HIGHEST GCS TOTAL

| Rule ID | Level | Message |
|---|---|---|
| 10201 | 1 | Value is not a valid menu option |
| 10202 | 2 | Field cannot be blank |
| 10203 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10204 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### INITIAL ED/HOSPITAL PUPILLARY RESPONSE

| Rule ID | Level | Message |
|---|---|---|
| 13601 | 1 | Value is not a valid menu option |
| 13602 | 2 | Field cannot be blank |
| 13603 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 13604 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### MIDLINE SHIFT

| Rule ID | Level | Message |
|---|---|---|
| 13701 | 1 | Value is not a valid menu option |
| 13702 | 2 | Field cannot be blank |
| 13703 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 13704 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### CEREBRAL MONITOR

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 10301 | 1 | Value is not a valid menu option |
| 10302 | 2 | Field cannot be blank |
| 10304 | 2 | Field should be Not Applicable as the AIS codes provided do not meet collection criteria |
| 10305 | 2 | Field should not be Not Applicable as the AIS codes provided meet the collection criteria |

### CEREBRAL MONITOR DATE

| Rule ID | Level | Message |
|---|---|---|
| 10401 | 1 | Date is not valid |
| 10402 | 2 | Field cannot be blank |
| 10403 | 1 | Date out of range |
| 10404 | 2 | Field cannot be "Not Applicable" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10405 | 3 | Field should not be "Not Known/Not Recorded" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" |
| 10407 | 4 | Cerebral Monitor Date should not be earlier than ED/Hospital Arrival Date unless placed at referring facility and used for monitoring |
| 10408 | 4 | Cerebral Monitor Date should not be later than Hospital Discharge Date |
| 10409 | 2 | Field should be Not Applicable when Cerebral Monitor is Not Applicable or None |

### CEREBRAL MONITOR TIME

| Rule ID | Level | Message |
|---|---|---|
| 10501 | 1 | Time is not valid |
| 10502 | 1 | Time out of range |
| 10503 | 2 | Field cannot be blank |
| 10504 | 2 | Field cannot be "Not Applicable" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10505 | 3 | Field should not be "Not Known/Not Recorded" when Cerebral Monitor is not "Not Applicable" or "Not Known/Not Recorded" |
| 10506 | 4 | Cerebral Monitor Time should not be earlier than ED/Hospital Arrival Time unless placed at referring facility and used for monitoring |
| 10507 | 4 | Cerebral Monitor Time should not be later than Hospital Discharge Time |
| 10508 | 2 | Field should be Not Applicable when Cerebral Monitor is Not Applicable or None |

### VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE

| Rule ID | Level | Message |
|---|---|---|
| 10601 | 1 | Value is not a valid menu option |

| | | |
|---|---|---|
| 10602 | 2 | Field cannot be blank |
| 10603 | 2 | Field cannot be Not Applicable |

### VENOUS THROMBOEMBOLISM PROPHYLAXIS DATE

| Rule ID | Level | Message |
|---|---|---|
| 10701 | 1 | Date is not valid |
| 10702 | 1 | Date out of range |
| 10703 | 2 | Field cannot be blank |
| 10705 | 2 | Field cannot be "Not Applicable" when VTE Prophylaxis is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10706 | 2 | VTE Prophylaxis Date is earlier than ED/Hospital Arrival Date |
| 10707 | 2 | VTE Prophylaxis Date is later than Hospital Discharge Date |
| 10708 | 2 | Field should be Not Applicable when VTE Prophylaxis is 'None' |

### VENOUS THROMBOEMBOLISM PROPHYLAXIS TIME

| Rule ID | Level | Message |
|---|---|---|
| 10801 | 1 | Time is not valid |
| 10802 | 1 | Time out of range |
| 10803 | 2 | Field cannot be blank |
| 10805 | 2 | Field cannot be "Not Applicable" when VTE Prophylaxis is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 10806 | 2 | VTE Prophylaxis Time is earlier than ED/Hospital Arrival Time |
| 10807 | 2 | VTE Prophylaxis Time is later than Hospital Discharge Time |
| 10808 | 2 | Field should be Not Applicable when VTE Prophylaxis is 'None' |

### TRANSFUSION BLOOD (4 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11001 | 1 | Invalid value |
| 11002 | 2 | Field cannot be blank |
| 11003 | 2 | Field cannot be Not Applicable |
| 11004 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |

### TRANSFUSION BLOOD (24 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11401 | 1 | Invalid value |
| 11402 | 2 | Field cannot be blank |

| | | |
|---|---|---|
| 11404 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11405 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11406 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11407 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |
| 11408 | 2 | Field cannot be less than Transfusion Blood (4 Hours) |

### TRANSFUSION BLOOD MEASUREMENT

| Rule ID | Level | Message |
|---|---|---|
| 12801 | 1 | Value is not a valid menu option |
| 12802 | 2 | Field cannot be blank |

### TRANSFUSION BLOOD CONVERSION

| Rule ID | Level | Message |
|---|---|---|
| 12901 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 12902 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 12903 | 2 | Field cannot be blank |

### TRANSFUSION PLASMA (4 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11101 | 1 | Invalid value |
| 11102 | 2 | Field cannot be blank |
| 11104 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11105 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11106 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11107 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### TRANSFUSION PLASMA (24 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11501 | 1 | Invalid value |
| 11502 | 2 | Field cannot be blank |
| 11504 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11506 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |

| | | |
|---|---|---|
| 11507 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11508 | 2 | Field cannot be less than Transfusion Plasma (4 Hours) |
| 11509 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### TRANSFUSION PLASMA MEASUREMENT

| Rule ID | Level | Message |
|---|---|---|
| 13001 | 1 | Value is not a valid menu option |
| 13002 | 2 | Field cannot be blank |

### TRANSFUSION PLASMA CONVERSION

| Rule ID | Level | Message |
|---|---|---|
| 13101 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13102 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13103 | 2 | Field cannot be blank |

### TRANSFUSION PLATELETS (4 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11201 | 1 | Invalid value |
| 11202 | 2 | Field cannot be blank |
| 11204 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11205 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11206 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11207 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### TRANSFUSION PLATELETS (24 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11601 | 1 | Invalid value |
| 11602 | 2 | Field cannot be blank |
| 11604 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 11605 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11606 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11607 | 2 | Field cannot be less than Transfusion Platelets (4 Hours) |
| 11608 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not |

Known/Not Recorded

### TRANSFUSION PLATELETS MEASUREMENT

| Rule ID | Level | Message |
|---|---|---|
| 13201 | 1 | Value is not a valid menu option |
| 13202 | 2 | Field cannot be blank |

### TRANSFUSION PLATELETS CONVERSION

| Rule ID | Level | Message |
|---|---|---|
| 13301 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13302 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13303 | 2 | Field cannot be blank |

### CRYOPRECIPITATE (4 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 11301 | 1 | Invalid value |
| 11302 | 2 | Field cannot be blank |
| 11304 | 3 | Warning: Value exceeds 80 for Units or 40,000 for CCs, please verify this is correct. |
| 11305 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11306 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11307 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### CRYOPRECIPITATE (24 HOURS)

| Rule ID | Level | Message |
|---|---|---|
| 12701 | 1 | Invalid value |
| 12702 | 2 | Field cannot be blank |
| 12704 | 3 | Warning: Value exceeds 120 for Units or 60,000 for CCs, please verify this is correct. |
| 12705 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 12706 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 12707 | 2 | Field cannot be less than Transfusion Cryoprecipitate (4 Hours) |
| 12708 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### CRYOPRECIPITATE MEASUREMENT

| Rule ID | Level | Message |
|---|---|---|
| 13401 | 1 | Value is not a valid menu option |
| 13402 | 2 | Field cannot be blank |

### CRYOPRECIPITATE CONVERSION

| Rule ID | Level | Message |
|---|---|---|
| 13501 | 1 | Value exceeds the max of 1000 (or is not a valid number) |
| 13502 | 3 | Warning: Value exceeds 500, please verify this is correct. |
| 13503 | 2 | Field cannot be blank |

### LOWEST ED/HOSPITAL SYSTOLIC BLOOD PRESSURE

| Rule ID | Level | Message |
|---|---|---|
| 10901 | 1 | Invalid value |
| 10902 | 2 | Field cannot be blank |
| 10903 | 3 | Warning: SBP value exceeds the max of 300 |
| 10905 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 10906 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 10907 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### ANGIOGRAPHY

| Rule ID | Level | Message |
|---|---|---|
| 11701 | 1 | Value is not a valid menu option |
| 11702 | 2 | Field cannot be blank |
| 11703 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 11704 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 11705 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### EMBOLIZATION SITE

| Rule ID | Level | Message |
|---|---|---|
| 11801 | 1 | Value is not a valid menu option |
| 11802 | 2 | Field cannot be blank |
| 11803 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram with embolization' |
| 11804 | 2 | Field should be Not Applicable when Angiography is 'None' or 'Angiogram only' |

### ANGIOGRAPHY DATE

| Rule ID | Level | Message |
|---|---|---|
| 11901 | 1 | Date is not valid |
| 11902 | 1 | Date out of range |
| 11903 | 2 | Field cannot be blank |
| 11904 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram only' or 'Angiogram with embolization' |
| 11905 | 2 | Field should be Not Applicable when Angiography is 'None' |
| 11906 | 2 | Angiography Date is earlier than ED/Hospital Arrival Date |
| 11907 | 2 | Angiography Date is later than Hospital Discharge Date |
| 11908 | 3 | Angiography Date/Time minus ED/Hospital Arrival Date/Time is greater than 24 hours |

### ANGIOGRAPHY TIME

| Rule ID | Level | Message |
|---|---|---|
| 12001 | 1 | Time is not valid |
| 12002 | 1 | Time out of range |
| 12003 | 2 | Field cannot be blank |
| 12004 | 2 | Field cannot be Not Applicable when Angiography is 'Angiogram only' or 'Angiogram with embolization' |
| 12005 | 2 | Field should be Not Applicable when Angiography is 'None' |
| 12006 | 2 | Angiography Time is earlier than ED/Hospital Arrival Time |
| 12007 | 2 | Angiography Time is later than Hospital Discharge Time |
| 12008 | 3 | Angiography Date/Time minus ED/Hospital Arrival Date/Time is greater than 24 hours |

### SURGERY FOR HEMORRHAGE CONTROL TYPE

| Rule ID | Level | Message |
|---|---|---|
| 12101 | 1 | Value is not a valid menu option |
| 12102 | 2 | Field cannot be blank |
| 12103 | 2 | Field cannot be Not Applicable when Transfusion Blood (4 Hours) is greater than 0 |
| 12104 | 2 | Field must be Not Applicable when Transfusion Blood (4 Hours) is 0 |
| 12105 | 2 | Field must be Not Known/Not Recorded when Transfusion Blood (4 Hours) is Not Known/Not Recorded |

### SURGERY FOR HEMORRHAGE CONTROL DATE

| Rule ID | Level | Message |
|---|---|---|

| | | |
|---|---|---|
| 12201 | 1 | Date is not valid |
| 12202 | 1 | Date out of range |
| 12203 | 2 | Surgery For Hemorrhage Control Date is earlier than ED/Hospital Arrival Date |
| 12204 | 2 | Surgery For Hemorrhage Control Date is later than Hospital Discharge Date |
| 12205 | 2 | Field cannot be "Not Applicable" when Hemorrhage Control Surgery Type is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 12206 | 2 | Field should be Not Applicable when Hemorrhage Control Surgery Type is 'None' |
| 12207 | 2 | Field cannot be blank |

### SURGERY FOR HEMORRHAGE CONTROL TIME

| Rule ID | Level | Message |
|---|---|---|
| 12301 | 1 | Time is not valid |
| 12302 | 1 | Time out of range |
| 12303 | 2 | Surgery For Hemorrhage Control Time is earlier than ED/Hospital Arrival Time |
| 12304 | 2 | Surgery For Hemorrhage Control Time is later than Hospital Discharge Time |
| 12305 | 2 | Field cannot be "Not Applicable" when Hemorrhage Control Surgery Type is not "Not Applicable" or "Not Known/Not Recorded" or "None" |
| 12306 | 2 | Field should be Not Applicable when Hemorrhage Control Surgery Type is 'None' |
| 12307 | 2 | Field cannot be blank |

### WITHDRAWAL OF LIFE SUPPORTING TREATMENT

| Rule ID | Level | Message |
|---|---|---|
| 13801 | 1 | Value is not a valid menu option |
| 13802 | 2 | Field cannot be blank |
| 13803 | 2 | Field cannot be Not Applicable |

### WITHDRAWAL OF LIFE SUPPORTING TREATMENT DATE

| Rule ID | Level | Message |
|---|---|---|
| 13901 | 1 | Date is not valid |
| 13902 | 1 | Date out of range |
| 13903 | 2 | Withdrawal of Life Supporting Treatment Date is earlier than ED/Hospital Arrival Date |
| 13904 | 2 | Withdrawal of Life Supporting Treatment Date is later than Hospital Discharge Date |
| 13905 | 2 | Field cannot be Not Applicable when Withdrawal of Life Supporting Treatment is 1 (Yes) |
| 13906 | 2 | Field should be Not Applicable when Withdrawal of Life Supporting Treatment is 2 (No) |

| | | |
|---|---|---|
| 13907 | 2 | Field cannot be blank |

### WITHDRAWAL OF LIFE SUPPORTING TREATMENT TIME

| Rule ID | Level | Message |
|---|---|---|
| 14001 | 1 | Time is not valid |
| 14002 | 1 | Time out of range |
| 14003 | 2 | Withdrawal of Life Supporting Treatment Time is earlier than ED/Hospital Arrival Time |
| 14004 | 2 | Withdrawal of Life Supporting Treatment Time is later than Hospital Discharge Time |
| 14005 | 2 | Field cannot be Not Applicable when Withdrawal of Life Supporting Treatment is 1 (Yes) |
| 14006 | 2 | Field should be Not Applicable when Withdrawal of Life Supporting Treatment is 2 (No) |
| 14007 | 2 | Field cannot be blank |

## Surgeon Specific Reporting Information

### NATIONAL PROVIDER IDENTIFIER (NPI)

| Rule ID | Level | Message |
|---|---|---|
| 9801 | 1 | Invalid value |
| 9802 | 2 | Field cannot be blank |

## Control Information

### LastModifiedDateTime

| Rule ID | Level | Message |
|---|---|---|
| 8201 | 1 | Time is not valid |
| 8202 | 2 | Field cannot be blank |

### PatientId

| Rule ID | Level | Message |
|---|---|---|
| 8301 | 1 | Invalid value |
| 8302 | 2 | Field cannot be blank |

### FacilityId

| Rule ID | Level | Message |
|---|---|---|
| 8401 | 1 | Invalid value |
| 8402 | 2 | Field cannot be blank |

| Aggregate Information | | |
|---|---|---|
| **Rule ID** | **Level** | **Message** |
| 9901 | 1 | The Facility ID must be consistent throughout the file -- that is, only one Facility ID per file |
| 9902 | 1 | The ED/Hospital Arrival year must be consistent throughout the file -- that is, only one admission year per file |
| 9903 | 1 | There can only be one unique Facility ID / Patient ID / Last Modified Date combination per file |
| 9904 | 4 | More than one AIS Version has been used in the submission file |
| 9905 | 3 | More than one version of AIS coding has been detected in the submission file |
| 9906 | 3 | The version of AIS codes entered in the submission file have been identified as 05. However, the AisVersion(s) submitted throughout the file do NOT contain 05 Full Code. |
| 9907 | 3 | The version of AIS codes entered in the submission file have been identified as 90/95/98. However, the only AisVersion submitted throughout the file is 05 Full Code. |
| 9908 | 3 | Greater than 10% of your patients have been submitted with unknown complication information. |

## Appendix 3: Glossary of Terms

**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 prior 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 the discomfort in the neck, jaw, shoulder, back or arm. Symptoms may be different in women than men. 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. Exclude patients who are on chronic Aspirin therapy. Some examples are:

| ANTICOAGULANTS | ANTIPLATELET AGENTS | THROMBIN INHIBITORS | THROMBOLYTIC AGENTS |
|---|---|---|---|
| Fondaparinux | Tirofiban | Bevalirudin | Alteplase |
| Warfarin | Dipyridamole | Argatroban | Reteplase |
| Dalteparin | Anagrelide | Lepirudin, Hirudin | Tenacteplase |
| Lovenox | Eptifibatide | Drotrecogin alpha | kabikinase |
| Pentasaccaride | 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 the 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 Willenbrand Disease, Factor V Leiden.)

**Cerebral Vascular 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 terms "chronic bronchitis" and "emphysema" are no longer used, but are now included within the COPD 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% or predicted on pulmonary function testing.

A diagnosis of COPD must be documented in 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 in the patient's medical record.

**Congenital Anomalies:** Documentation of a cardiac, pulmonary, body wall, CNS/spinal, GI, renal, orthopedic, or metabolic 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 or lying supine)
- Paroxysmal nocturnal dyspnea (awakening from sleep with dyspnea)
- Increased jugular venous pressure
- Pulmonary rales on physical examination
- Cardiomegaly
- Pulmonary vascular engorgement

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

**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.

**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, present 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 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/or 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 persistent elevated blood pressure requiring medical therapy, present prior to injury. A diagnosis of Hypertension must be documented in the 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:** History of a 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 PAD 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 require 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, and 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.

## HOSPITAL 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 initial stay at your hospital.

***KDIGO (Stage 3) Table:***

(SCr) 3 times baseline

**OR**

Increase in SCr to ≥ 4.0 mg/dl (≥ 353.6 µmol/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 to be 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.)*

| | |
|---|---|
| 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 collage, or nodules |
| Origin of edema: | Respiratory failure not fully explained by cardiac failure of fluid overload. Need objective assessment (e.g., echocardiography) to exclude hydrostatic edema if no risk factor present |
| Oxygenation: | 200<Pa02/Fi02<=300 |
| (at a minimum) | With PEEP or CPAP>=5 cmH20c |

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.*) 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 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 event for the UTI must be the 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 urinary catheter in place for the entire day on the date of event and such catheter had been in place for >2 calendar days, on 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 (>38$^0$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$^0$C)
    - hypothermia (<36.0$^0$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 ≥$10^5$ 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.

**Central Line-Associated Bloodstream Infection (CLABSI):** (*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 only central line, day of first access in an inpatient location is considered Day 1. "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$^0$C), chills, or 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. diphtheriae], 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 ≤ 1 year of age has at least one of the following signs or symptoms: fever (>38$^0$ C), hypothermia (<36$^0$C), apnea, or bradycardia

**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. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp., coagulase-negative staphylococci [including S. epidermidis], viridans group streptococci, Aerococcus spp., Micrococcus spp.) is identified from two or more blood specimens drawn on separate occasions, by a culture or non-culture base 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 the NHSN operative procedure
(where day 1 = the procedure date) According to list in Table 2

**AND**

involves deep soft tissues of the incision (e.g., fascial and muscle layers)

**AND**

patient has at least ***one*** of the following:
a. purulent drainage from the deep incision.
b. 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 purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST) or culture or non-culture based microbiologic testing method is not performed

**AND**

patient has at least ***one*** of the following signs or symptoms: fever
(>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.
c. 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:

1. 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)
2. 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 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 |
| BILI | 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 chest 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 must 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):

1. ST elevation >1 mm in two or more contiguous leads
2. New left bundle branch block
3. 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 occurs within 30 or 90 days after the NHSN operative procedure (where day 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 |
| BILI | 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 chest 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 the 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 from bone 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).
2. Patient has evidence of osteomyelitis on gross anatomic or histopathologic exam.
3. Patient has at least ***two*** of the following localized signs or symptoms: fever (>38.0°C), swelling*, pain or tenderness*, heat*, or 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 if 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 underlying tissue usually over a bony 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 Stages 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 ≥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 and subcutaneous tissue of the incision

**AND**

patient has at least ***one*** of the following:
a. purulent drainage from the superficial incision.
b. 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).
c. superficial incision that is deliberately opened by a 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; or heat. A culture or non-culture based test that has a negative finding does not meet this criterion.
d. diagnosis of a 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 patient's 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):***

| IMAGING TEST EVIDENCE | SIGNS/SYMPTOMS | LABORATORY |
|---|---|---|
| Two or more serial chest imaging test results with at least **one** of the following: | At least **one** of the following: | At least **one** of the following: |
| • New or progressive **and** persistent infiltrate | • Fever (>38ºC or >100.4ºF) | • Organism identified from blood<br>• Organism identified from pleural fluid<br>• Positive quantitative culture from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing.) |
| • Consolidation | • Leukopenia (≤4000 WBC/mm³) or leukocytosis (≥12,000 WBC/mm³) | • ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram's stain) |
| • Cavitation | • For adults ≥70 years old, altered mental status with no other recognized cause | • Positive quantitative culture of lung tissue<br>• Histopathologic exam shows at least **one** of the following evidences of |

| | | |
|---|---|---|
| | | pneumonia: |
| • Pneumatoceles, in infants ≤1 year old<br><br>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 imaging test reslut is acceptable. | AND at least two of the following:<br><br>• New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements<br>• New onset or worsening cough, or dyspnea, or tachypnea<br>• Rales or bronchial breath sounds<br>• Worsening gas exchange (e.g., $0_2$ desaturations (e.g., $PaO_2/FiO_2 \leq 240$), increased oxygen requirements, or increased ventilator demand) | o Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli<br><br>o Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae |

***VAP Algorithm (PNU2 Viral, Legionnella, and other Bacterial Pneumonias):***

| IMAGING TEST EVIDENCE | SIGNS/SYMPTOMS | LABORATORY |
|---|---|---|
| Two or more serial chest imaging test results with at least **one** of the following:<br>• New or progressive **and** persistent infiltrate<br>• Consolidation<br>• Cavitation<br>• Pneumatoceles, in infants ≤1 year old<br><br>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 imaging test result is acceptable. | At least **one** of the following:<br>• Fever (>38ºC or >100.4ºF)<br>• Leukopenia (≤4000 WBC/mm³) or leukocytosis (≥12,000 WBC/mm³)<br>• For adults ≥70 years old, altered mental status with no other recognized cause<br><br>AND at least **one** of the following:<br>• New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements<br>• New onset or worsening cough, or dyspnea, or tachypnea<br>• Rales or bronchial breath sounds<br>• Worsening gas exchange (e.g., $0_2$ desaturations (e.g., $PaO_2/FiO_2 \leq 240$), increased oxygen requirements, or increased ventilator demand) | At least **one** of the following:<br>• Virus, *Bordetella,Legionella, Chlamydia or Mycoplasma* identified from respiratory secretions or 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).<br>• Fourfold rise in paired sera (IgG) for pathogen (e.g., influenza viruses, *Chlamydia*)<br>• Fourfold rise in *Legionella pneumophila* serogroup 1 antibody titer to ≥1:128 in paired acute and convalescent sera by indirect IFA.<br>• Detection of L. pneumophila serogroup 1 antigens in urine by RIA or EIA |

### *VAP Algorithm (PNU3 Immunocompromised Patients):*

| IMAGING TEST EVIDENCE | SIGNS/SYMPTOMS | LABORATORY |
|---|---|---|
| Two or more serial chest imaging test results with at least **one** of the following:<br>• New or progressive **and** persistent infiltrate<br>• Consolidation<br>• Cavitation<br>• Pneumatoceles, in infants ≤1 year old<br><br>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 imaging test result is acceptable. | Patient who is immunocompromised has at least ***one*** of the following:<br>• Fever (>38ºC or >100.4ºF)<br>• For adults ≥70 years old, altered mental status with no other recognized cause<br>• New onset of purulent sputum3, or change in character ofsputum4, or increased respiratory secretions, or increased suctioning requirements<br>• New onset or worsening cough, or dyspnea, or tachypnea5<br>• Rales6 or bronchial breath sounds<br>• Worsening gas exchange (e.g., O2 desaturations [e.g., PaO2/FiO2 <240]7, increased oxygen requirements, or increased ventilator demand)<br>• Hemoptysis<br>• Pleuritic chest pain | At least **one** of the following:<br>• Identification of matching *Candida* spp. from blood and sputum, endotracheal aspirate, BAL or protected specimen brushing.11,12,13<br>• Evidence of fungi from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing) from one of the following:<br>− Direct microscopic exam<br>− Positive culture of fungi<br>− Non-culture diagnostic laboratory test<br><br>Any of the following from:<br>**LABORATORY CRITERIA DEFINED UNDER PNU2** |

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

| IMAGING TEST EVIDENCE | SIGNS/SYMPTOMS/LABORATORY |
|---|---|
| Two or more serial chest imaging test results with at least **one** of the following:<br>• New or progressive **and** persistent infiltrate<br>• Consolidation<br>• Cavitation | Worsening gas exchange (e.g., $O_2$ desaturation [e.g. pulse oximetry <94%], increased oxygen requirements, or increased ventilator demand)<br><br>**AND** at least **three** of the following:<br>• Temperature instability<br>• Leukopenia (≤4000 WBC/mm³) **or** leukocytosis (≥15,000 WBC/mm³) and left shift (≥10% band forms) |

| | |
|---|---|
| • Pneumatoceles, in infants ≤1 year old<br><br>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** imaging test result is acceptable. | • New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements<br>• Apnea, tachypnea, nasal flaring with retraction of chest wall, or nasal flaring with grunting<br>• Wheezing, rales, or rhonchi<br>• Cough<br>• Bradycardia (<100 beats/min) or tachycardia (>170 beats/min) |

***VAP Algorithm ALTERNATE CRITERIA (PNU1), for children >1 year old or ≤12 years old:***

| IMAGING TEST EVIDENCE | SIGNS/SYMPTOMS/LABORATORY |
|---|---|
| Two or more serial chest imaging test results with at least **one** of the following:<br>• New or progressive **and** persistent infiltrate<br>• Consolidation<br>• Cavitation<br>• Pneumatoceles, in infants ≤1 year old<br>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** imaging test result is acceptable. | At least **three** of the following:<br>• Fever (>38.0ºC or >100.4ºF) or hypothermia (<36.0ºC or <96.8ºF)<br>• Leukopenia (≤4000 WBC/mm³) **or** leukocytosis (≥15,000 WBC/mm³)<br>• New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements<br>• New onset or worsening cough, or dyspnea, apnea, or tachypnea<br>• Rales or bronchial breath sounds<br>• Worsening gas exchange (e.g., $O_2$ desaturations [e.g., pulse oximetry <94%], increased oxygen requirements, or increased ventilator demand) |

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

## Appendix 4: Acknowledgements

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