



ACS NTDB NATIONAL TRAUMA DATA STANDARD: Data Dictionary

2014 ADMISSIONS



AMERICAN COLLEGE OF SURGEONS

*Inspiring Quality:
Highest Standards, Better Outcomes*



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Demographic Information

PATIENT'S HOME ZIP CODE

Definition

The patient's home ZIP code of primary residence.

XSD Element Name: HomeZip	XSD Schema Datatype: xs:string
XSD ComplexType: Zip	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

- Relevant value for data element

Additional Information

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

Data Source Hierarchy

1. Billing Sheet / Medical Records Coding Summary Sheet
2. ED Admission Form
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0001	1	Invalid value
0002	4	Blank, required field
0003	5	Not Applicable, complete variable: Alternate Home Residence
0005	5	Not Known/Not Recorded, complete variables: Patient's Home Country, Patient's Home State, Patient's Home County and Patient's Home City

PATIENT'S HOME COUNTRY

Definition

The country where the patient resides.

XSD Element Name: HomeCountry	XSD Schema Datatype: xs:string
XSD ComplexType: Country	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

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

Data Source Hierarchy

1. Billing Sheet / Medical Records Coding Summary Sheet
2. ED Admission Form
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0101	1	Invalid value
0102	4	Blank, required to complete when Patient's Home Zip Code is Not Known/Not Recorded
0103	5	Blank, required to complete variables: Patients Home Zip Code or Alternate Home Residence

PATIENT'S HOME STATE

Definition

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

XSD Element Name: HomeState	XSD Schema Datatype: xs:string
XSD ComplexType: State	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."
- Used to calculate FIPS code.

Data Source Hierarchy

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0201	1	Invalid value
0202	4	Blank, required to complete when Patient's Home Zip Code is Not Known/Not Recorded
0203	5	Blank, required to complete variables: Patients Home Zip Code or Alternate Home Residence

PATIENT'S HOME COUNTY

Definition

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

XSD Element Name: HomeCounty	XSD Schema Datatype: xs:string
XSD ComplexType: County	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."
- Used to calculate FIPS code.

Data Source Hierarchy

1. Billing Sheet / Medical Records Coding Summary Sheet
2. ED Admission Form
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0301	1	Invalid value
0302	4	Blank, required to complete when Patient's Home Zip Code is Not Known/Not Recorded
0303	5	Blank, required to complete variables: Patients Home Zip Code or Alternate Home Residence

PATIENT'S HOME CITY

Definition

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

XSD Element Name: HomeCity	XSD Schema Datatype: xs:string
XSD ComplexType: City	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

- Only completed when ZIP code is "Not Recorded/Not Known."
- Used to calculate FIPS code.

Data Source Hierarchy

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0401	1	Invalid value
0402	4	Blank, required to complete when Patient's Home Zip Code is Not Known/Not Recorded
0403	5	Blank, required to complete variables: Patients Home Zip Code or Alternate Home Residence

ALTERNATE HOME RESIDENCE

Definition

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

XSD Element Name: HomeResidence	XSD Schema Datatype: xs:integer
XSD ComplexType: HomeResidence	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|-------------------------|--------------------|
| 1. Homeless | 3. Migrant Worker |
| 2. Undocumented Citizen | 4. Foreign Visitor |

Additional Information

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

Data Source Hierarchy

1. Billing Sheet / Medical Records Coding Summary Sheet
2. ED Admission Form
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0501	1	Invalid value
0502	4	Blank, required to complete when Patients Home Zip Code is Not Applicable
0503	5	Blank, required to complete variables: Patients Home Zip Code or (Patients Home Country, Patients Home State, Patients Home County and Patients Home City)

DATE OF BIRTH

Definition

The patient's date of birth.

XSD Element Name: DateOfBirth	XSD Schema Datatype: xs:date
XSD ComplexType: DateOfBirth	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1890-01-01 Maximum Value: 2030-01-01	

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 ED/Hospital Arrival Date, then the Age and Age Units variables must be completed.
- Used to calculate patient age in days, months, or years.

Data Source Hierarchy

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0601	1	Invalid value
0602	1	Date out of range
0603	2	Blank, required field
0605	3	Not Known/Not Recorded, complete variables: Age and Age Units
0606	2	Date of Birth cannot be later than EMS Dispatch Date
0607	2	Date of Birth cannot be later than EMS Unit Arrival on Scene Date
0608	2	Date of Birth cannot be later than EMS Unit Scene Departure Date
0609	2	Date of Birth cannot be later than ED/Hospital Arrival Date
0610	2	Date of Birth cannot be later than ED Discharge Date
0611	2	Date of Birth cannot be later than Hospital Discharge Date

- 0612 2 Date of Birth + 120 years must be less than ED/Hospital Arrival Date
- 0613 2 Field cannot be Not Applicable

AGE

Definition

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

XSD Element Name: Age	XSD Schema Datatype: xs:integer
XSD ComplexType: Age	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 120	

Field Values

- Relevant value for data element

Additional Information

- Used to calculate patient age in 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

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0701	1	Invalid value
0702	5	Blank, required to complete variable: Date of Birth
0703	2	Blank, required to complete when (1) Date of Birth equals ED/Hospital Arrival date or (2) Date of Birth is Not Known/Not Recorded
0704	3	Ed/Hospital Arrival Date minus Date of Birth must equal submitted Age.
0705	4	Age is > 110. Please verify this is correct.
0706	2	Field cannot be blank when Age Units is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded
0707	2	Field cannot be Not Applicable when Age Units is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded
0708	2	Field cannot be Not Known/Not Recorded when Age Units is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded

AGE UNITS

Definition

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

XSD Element Name: AgeUnits	XSD Schema Datatype: xs:integer
XSD ComplexType: AgeUnits	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

- Used to calculate patient age in 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

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Triage Form / Trauma Flow Sheet
4. EMS Run Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0801	1	Invalid value
0802	5	Blank, required to complete variable: Date of Birth
0803	2	Blank, required to complete when (1) Date of Birth equals ED/Hospital Arrival date or (2) Date of Birth is Not Known/Not Recorded
0804	2	Field cannot be blank when Age is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded
0805	2	Field cannot be Not Applicable when Age is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded
0806	2	Field cannot be Not Known/Not Recorded when Age is not: (1) blank, (2) Not Applicable, or (3) Not Known/Not Recorded

RACE**Definition**

The patient's race.

XSD Element Name: Race	XSD Schema Datatype: xs:integer
XSD ComplexType: Race	Multiple Entry Configuration: Yes, max 2
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

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

Data Source Hierarchy

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Triage Form / Trauma Flow Sheet
4. EMS Run Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
0901	1	Invalid value
0902	4	Blank, required field

ETHNICITY

Definition

The patient's ethnicity.

XSD Element Name: Ethnicity	XSD Schema Datatype: xs:integer
XSD ComplexType: Ethnicity	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Hispanic or Latino
2. Not Hispanic or Latino

Additional Information

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

Data Source Hierarchy

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Triage Form / Trauma Flow Sheet
4. EMS Run Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1001	1	Invalid value
1002	4	Blank, required field

SEX

D_12

Definition

The patient's sex.

XSD Element Name: Sex	XSD Schema Datatype: xs:integer
XSD ComplexType: Sex	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1101	1	Invalid value
1102	2	Blank, required field
1103	2	Not Applicable, required Inclusion Criterion

Injury Information

INJURY INCIDENT DATE

Definition

The date the injury occurred.

XSD Element Name: IncidentDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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 health care provider. Other proxy measures (e.g., 911 call time) should not be used.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1201	1	Invalid Value
1202	1	Date out of range
1203	4	Blank, required field
1204	4	Injury Incident Date cannot be earlier than Date of Birth
1205	4	Injury Incident Date cannot be later than EMS Dispatch Date
1206	4	Injury Incident Date cannot be later than EMS Unit Arrival on Scene Date
1207	4	Injury Incident Date cannot be later than EMS Unit Scene Departure Date
1208	4	Injury Incident Date cannot be later than ED/Hospital Arrival Date
1209	4	Injury Incident Date cannot be later than ED Discharge Date
1210	4	Injury Incident Date cannot be later than Hospital Discharge Date

INJURY INCIDENT TIME

Definition

The time the injury occurred.

XSD Element Name: IncidentTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 time) should not be used.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1301	1	Invalid value
1302	1	Time out of range
1303	4	Blank, required field
1304	4	If Injury Incident Date and EMS Dispatch Date are the same, the Injury Incident Time cannot be later than the EMS Dispatch Time
1305	4	If Injury Incident Date and EMS Unit Arrival on Scene Date are the same, the Injury Incident Time cannot be later than the EMS Unit Arrival on Scene Time
1306	4	If Injury Incident Date and EMS Unit Scene Departure Date are the same, the Injury Incident Time cannot be later than the EMS Unit Scene Departure Time
1307	4	If Injury Incident Date and ED/Hospital Arrival Date are the same, the Injury Incident Time cannot be later than the ED/Hospital Arrival Time
1308	4	If Injury Incident Date and ED Discharge Date are the same, the Injury Incident Time cannot be later than the ED Discharge Time
1309	4	If Injury Incident Date and Hospital Discharge Date are the same, the Injury Incident Time cannot be later than the Hospital Discharge Time

WORK-RELATED

I_03

Definition

Indication of whether the injury occurred during paid employment.

XSD Element Name: WorkRelated	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1401	1	Invalid value
1402	4	Blank, required field
1403	5	If completed, then Patients Occupational Industry must be completed
1404	5	If completed, then Patient Occupation must be completed

PATIENT'S OCCUPATIONAL INDUSTRY

Definition

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

XSD Element Name: PatientsOccupationalIndustry	XSD Schema Datatype: xs:integer
XSD ComplexType: PatientsOccupationalIndustry	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

- If work related, also complete Patient's Occupation.
- Based upon US Bureau of Labor Statistics Industry Classification.

Data Source Hierarchy

1. Triage Form / Trauma Flow Sheet
2. EMS Run Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1501	1	Invalid value
1502	4	If completed, then Work-Related must be 1 Yes
1503	5	If completed, then Patient Occupation must be completed
1504	4	Blank, required to complete when Work-Related is 1 (Yes)

PATIENT'S OCCUPATION

Definition

The occupation of the patient.

XSD Element Name: PatientsOccupation	XSD Schema Datatype: xs:integer
XSD ComplexType: PatientsOccupation	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

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

Data Source Hierarchy

1. Triage Form / Trauma Flow Sheet
2. EMS Run Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1601	1	Invalid value
1602	4	If completed, then Work-Related must be 1 Yes
1603	5	If completed, then Patients Occupational Industry must be completed

1604 4 Blank, required to complete when Work-Related is 1 (Yes)

ICD-9 PRIMARY EXTERNAL CAUSE CODE

Definition

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

XSD Element Name: PrimaryECode	XSD Schema Datatype: xs:string
XSD ComplexType: ECode	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 5	RegEx Pattern: ((\d{3}(\.\d{1})?))

Field Values

- Relevant ICD-9-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-9-CM codes will be accepted for this data element. Activity codes should not be reported in this field.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1701	1	Invalid, out of range
1702	2	Blank, required field (at least one ICD-9-CM or ICD-10 trauma code must be entered)
1703	4	External Cause Code should not be = (810.0, 811.0, 812.0, 813.0, 814.0, 815.0, 816.0, 817.0, 818.0, 819.0) and Age < 15
1704	2	Should not be 849.x
1705	3	External Cause Code should not be an activity code. Primary External Cause Code must be within the range of E800-999.9

ICD-10 PRIMARY EXTERNAL CAUSE CODE

Definition

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

XSD Element Name: PrimaryECodeIcd10	XSD Schema Datatype: xs:string
XSD ComplexType: ECodeIcd10	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 8	RegEx Pattern: (([V-X]\d{2} [Y][0-8]\d{1} Y9[01456789])(\[xA-HJ-NP-Z0-9]{1,4})?)

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

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
8901	1	Invalid, out of range
8902	2	Blank, required field (at least one ICD-9 or ICD-10 trauma code must be entered)
8904	2	Should not be Y92.X/Y92.XX/Y92.XXX (where X is A-Z or 0-9)
8905	3	ICD-10 External Cause Code must not be Y93.X/Y93.XX (where X is A-Z or 0-9)

ICD-9 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE

Definition

Place of occurrence external cause code used to describe the place/site/location of the injury event (E 849.X).

XSD Element Name: LocationECode	XSD Schema Datatype: xs:integer
XSD ComplexType: LocationECode	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 9	

Field Values

0. Home	5. Street
1. Farm	6. Public Building
2. Mine	7. Residential Institution
3. Industry	8. Other
4. Recreation	9. Unspecified

Additional Information

- Only ICD-9-CM codes will be accepted for ICD-9 Place of Occurrence External Cause Code.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1801	1	Invalid value
1802	4	Blank, required field (at least one ICD-9-CM or ICD-10 trauma code must be entered)

ICD-10 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE

Definition

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

XSD Element Name: PlaceOfInjuryCode	XSD Schema Datatype: xs:string
XSD ComplexType: PlaceOfInjuryCode	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 5 Maximum Length: 7	RegEx Pattern: [Y]92(\.[A-HJ-NP-Z0-9]{1,3})

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.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
9001	1	Invalid value
9002	4	Blank, required field (at least one ICD-9-CM or ICD-10 trauma code must be entered)
9003	3	Place of Injury code must be Y92.X/Y92.XX/Y92.XXX (where X is A-Z [excluding I,O] or 0-9)

ICD-9 ADDITIONAL EXTERNAL CAUSE CODE

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.

XSD Element Name: AdditionalECode	XSD Schema Datatype: xs:string
XSD ComplexType: ECode	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 5	RegEx Pattern: ((\d{3}(\.\d{1})?))

Field Values

- Relevant ICD-9-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-9-CM codes will be accepted for ICD-9 Additional External Cause Code.
- Activity codes should not be reported in this field.
- Refer to Appendix 3: Glossary of Terms for multiple cause coding hierarchy.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
1901	1	Invalid, out of range
1902	4	If completed, Additional External Cause Code cannot be equal to Primary External Cause Code.

ICD-10 ADDITIONAL EXTERNAL CAUSE CODE

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.

XSD Element Name: AdditionalECodeIcd10	XSD Schema Datatype: xs:string
XSD ComplexType: ECodeIcd10	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 8	RegEx Pattern: (([V-X]\d{2} [Y][0-8]\d{1} Y9[01456789])(\.[xA-HJ-NP-Z0-9]{1,4})?)

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.
- Refer to Appendix 3: Glossary of Terms for multiple cause coding hierarchy.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
9101	1	Invalid, out of range
9102	4	If completed, Additional External Cause Code ICD-10 cannot be equal to Primary External Cause Code ICD-10

INCIDENT LOCATION ZIP CODE

Definition

The ZIP code of the incident location.

XSD Element Name: InjuryZip	XSD Schema Datatype: xs:string
XSD ComplexType: Zip	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

- Relevant value for data element

Additional Information

- Can be stored as a 5 or 9 digit code (XXXXX-XXXX).
- If "Not Applicable" or "Not Recorded/Not Known," complete variables: Incident State, Incident County, Incident City and Incident Country.
- May require adherence to HIPAA regulations.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2001	1	Invalid value
2002	4	Blank, required field
2004	5	Not Known/Not Recorded, complete variables: Incident State, Incident County and Incident City
2005	5	Not Applicable, complete variables: Incident State, Incident County and Incident City

INCIDENT COUNTRY

Definition

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

XSD Element Name: IncidentCountry	XSD Schema Datatype: xs:string
XSD ComplexType: Country	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

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

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2101	1	Invalid value
2102	4	Blank, required to complete when Incident Location Zip Code is Not Applicable or Not Known/Not Recorded
2103	5	Blank, required to complete variable: Incident Location Zip Code

INCIDENT STATE

Definition

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

XSD Element Name: IncidentState	XSD Schema Datatype: xs:string
XSD ComplexType: State	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

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

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2201	1	Invalid value
2202	5	Blank, required to complete variable: Incident Location Zip Code
2203	4	Blank, required to complete when Incident Location Zip Code is Not Applicable or Not Known/Not Recorded

INCIDENT COUNTY

Definition

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

XSD Element Name: IncidentCounty	XSD Schema Datatype: xs:string
XSD ComplexType: County	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

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

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2301	1	Invalid value
2302	5	Blank, required to complete variable: Incident Location Zip Code
2303	4	Blank, required to complete when Incident Location Zip Code is Not Applicable or Not Known/Not Recorded

INCIDENT CITY

Definition

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

XSD Element Name: IncidentCity	XSD Schema Datatype: xs:string
XSD ComplexType: City	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

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

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2401	1	Invalid value
2402	5	Blank, required to complete variable: Incident Location Zip Code
2403	4	Blank, required to complete when Incident Location Zip Code is Not Applicable or Not Known/Not Recorded

PROTECTIVE DEVICES

Definition

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

XSD Element Name: ProtectiveDevice	XSD Schema Datatype: xs:integer
XSD ComplexType: ProtectiveDevice	Multiple Entry Configuration: Yes, max 10
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

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 and 10.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2501	1	Invalid value
2502	4	Blank, required field
2503	5	If Protective Device = 6 (Child Restraint) then Child Specific Restraint must be completed
2504	5	If Protective Device = 8 (Airbag Present) then Airbag Deployment must be completed

CHILD SPECIFIC RESTRAINT

Definition

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

XSD Element Name: ChildSpecificRestraint	XSD Schema Datatype: xs:integer
XSD ComplexType: ChildSpecificRestraint	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 "Child Restraint."

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2601	1	Invalid value
2602	3	If completed, then Protective Device must be 6 (Child Restraint).
2603	4	Blank, required to complete when Protective Device is 6 (Child Restraint)

AIRBAG DEPLOYMENT

Definition

Indication of airbag deployment during a motor vehicle crash.

XSD Element Name: AirbagDeployment	XSD Schema Datatype: xs:integer
XSD ComplexType: AirbagDeployment	Multiple Entry Configuration: Yes, max 4
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|--------------------------|---|
| 1. Airbag Not Deployed | 3. Airbag Deployed Side |
| 2. Airbag Deployed Front | 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 "Airbag."
- Airbag Deployed Front should be used for patients with documented airbag deployments, but are not further specified.

Data Source Hierarchy

1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
2701	1	Invalid value
2702	3	If completed, then Protective Device must be 8 (Airbag Present).
2703	4	Blank, required to complete when Protective Device is 8 (Airbag Present)

REPORT OF PHYSICAL ABUSE

I_20

Definition

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

XSD Element Name: AbuseReport	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

1. EMS Run Sheet
2. ED Records
3. H and P
4. Nursing Notes
5. Case Manager / Social Services' Notes
6. Physician Discharge Summary

Associated Edit Checks

Rule ID	Level	Message
9201	1	Invalid value
9202	2	Field cannot be Not Applicable

INVESTIGATION OF PHYSICAL ABUSE

Definition

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

XSD Element Name: AbuseInvestigation	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 Yes.
- The null value "Not Applicable" should be used for patients where Report of Physical Abuse is No.

Data Source Hierarchy

1. EMS Run Sheet
2. ED Records
3. Case Manager / Social Services' Notes
4. H and P
5. Nursing Notes
6. Physician Discharge Summary

Associated Edit Checks

Rule ID	Level	Message
9301	1	Invalid value
9302	3	Field cannot be blank when Report of Physical Abuse = 1 (Yes)
9303	3	Field cannot be Not Applicable when Report of Physical Abuse = 1 (Yes)

CAREGIVER AT DISCHARGE

Definition

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

XSD Element Name: CaregiverAtDischarge	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Yes 2. No

Additional Information

- Only complete when Report of Physical Abuse is 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 No or where older than the state/local age definition of a minor.

Data Source Hierarchy

1. Case Manager / Social Services' Notes
2. Physician Discharge Summary
3. Nursing Notes
4. Progress Notes

Associated Edit Checks

Rule ID	Level	Message
9401	1	Invalid value
9402	3	Field cannot be blank when Report of Physical Abuse = 1 (Yes)
9403	3	Field cannot be Not Applicable when Report of Physical Abuse = 1 (Yes)

Pre-hospital Information

EMS DISPATCH DATE

Definition

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

XSD Element Name: EmsNotifyDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
2801	1	Invalid value
2802	1	Date out of range
2803	3	EMS Dispatch Date cannot be earlier than Date of Birth
2804	4	EMS Dispatch Date cannot be later than EMS Unit Arrival on Scene Date
2805	4	EMS Dispatch Date cannot be later than EMS Unit Scene Departure Date
2806	3	EMS Dispatch Date cannot be later than ED/Hospital Arrival Date
2807	4	EMS Dispatch Date cannot be later than ED Discharge Date
2808	3	EMS Dispatch Date cannot be later than Hospital Discharge Date

EMS DISPATCH TIME

Definition

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

XSD Element Name: EmsNotifyTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
2901	1	Invalid value
2902	1	Time out of range
2903	4	If EMS Dispatch Date and EMS Unit Arrival on Scene Date are the same, the EMS Dispatch Time cannot be later than the EMS Unit Arrival on Scene Time
2904	4	If EMS Dispatch Date and EMS Unit Scene Departure Date are the same, the EMS Dispatch Time cannot be later than the EMS Unit Scene Departure Time
2905	4	If EMS Dispatch Date and ED/Hospital Arrival Date are the same, the EMS Dispatch Time cannot be later than the ED/Hospital Arrival Time
2906	4	If EMS Dispatch Date and ED Discharge Date are the same, the EMS Dispatch Time cannot be later than the ED Discharge Time
2907	4	If EMS Dispatch Date and Hospital Discharge Date are the same, the EMS Dispatch Time cannot be later than the Hospital Discharge Time

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.

XSD Element Name: EmsArrivalDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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).

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3001	1	Invalid value
3002	1	Date out of range
3003	3	EMS Unit Arrival on Scene Date cannot be earlier than Date of Birth
3004	4	EMS Unit Arrival on Scene Date cannot be earlier than EMS Dispatch Date
3005	4	EMS Unit Arrival on Scene Date cannot be later than EMS Unit Scene Departure Date
3006	3	EMS Unit Arrival on Scene Date cannot be later than ED/Hospital Arrival Date
3007	4	EMS Unit Arrival on Scene Date cannot be later than ED Discharge Date
3008	3	EMS Unit Arrival on Scene Date and cannot be later than Hospital Discharge Date
3009	3	EMS Unit Arrival on Scene Date minus EMS Dispatch Date cannot be greater than

7 days

EMS UNIT ARRIVAL TIME AT SCENE OR TRANSFERRING FACILITY

P_04

Definition

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

XSD Element Name: EmsArrivalTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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).

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3101	1	Invalid value
3102	1	Time out of range
3103	4	If EMS Unit Arrival on Scene Date and EMS Dispatch Date are the same, the EMS Unit Arrival on Scene Time cannot be earlier than the EMS Dispatch Time
3104	4	If EMS Unit Arrival on Scene Date and EMS Unit Scene Departure Date are the same, the EMS Unit Arrival on Scene Time cannot be later than the EMS Unit Scene Departure Time
3105	4	If EMS Unit Arrival on Scene Date and ED/Hospital Arrival Date are the same, the EMS Unit Arrival on Scene Time cannot be later than the ED/Hospital Arrival Time
3106	4	If EMS Unit Arrival on Scene Date and ED Discharge Date are the same, the EMS Unit Arrival on Scene Time cannot be later than the ED Discharge Time
3107	4	if EMS Unit Arrival on Scene Date and Hospital Discharge Date are the same, the EMS Unit Arrival on Scene Time cannot be later than the Hospital Discharge Time

EMS UNIT DEPARTURE DATE FROM SCENE OR TRANSFERRING FACILITY

P_05

Definition

The date the unit transporting to your hospital left the scene.

XSD Element Name: EmsLeftDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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).

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3201	1	Invalid value
3202	1	Date out of range
3203	3	EMS Unit Scene Departure Date cannot be earlier than Date of Birth
3204	4	EMS Unit Scene Departure Date cannot be earlier than EMS Dispatch Date
3205	4	EMS Unit Scene Departure Date cannot be earlier than EMS Unit Arrival on Scene Date
3206	3	EMS Unit Scene Departure Date cannot be later than ED/Hospital Arrival Date
3207	4	EMS Unit Scene Departure Date cannot be later than ED Discharge Date
3208	3	EMS Unit Scene Departure Date cannot be later than Hospital Discharge Date
3209	3	EMS Unit Scene Departure Date minus EMS Unit Arrival on Scene Date cannot be greater than 7 days

EMS UNIT DEPARTURE TIME FROM SCENE OR TRANSFERRING FACILITY

P_06

Definition

The time the unit transporting to your hospital left the scene.

XSD Element Name: EmsLeftTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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).

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3301	1	Invalid value
3302	1	Time out of range
3303	4	If EMS Unit Scene Departure Date and EMS Dispatch Date are the same, the EMS Unit Scene Departure Time cannot be earlier than the EMS Dispatch Time
3304	4	If EMS Unit Scene Departure Date and EMS Unit Arrival on Scene Date are the same, the EMS Unit Scene Departure Time cannot be earlier than the EMS Unit Arrival on Scene Time
3305	4	if EMS Unit Scene Departure Date and ED/Hospital Arrival Date are the same, the EMS Unit Scene Departure Time cannot be later than the ED/Hospital Arrival Time
3306	4	If EMS Unit Scene Departure Date and ED Discharge Date are the same, the EMS Unit Scene Departure Time cannot be later than the ED Discharge Time
3307	4	If EMS Unit Scene Departure Date and Hospital Discharge Date are the same, the EMS Unit Scene Departure Time cannot be later than the Hospital Discharge Time

TRANSPORT MODE

Definition

The mode of transport delivering the patient to your hospital.

XSD Element Name: TransportMode	XSD Schema Datatype: xs:integer
XSD ComplexType: TransportMode	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3401	1	Invalid value
3402	4	Blank, required field
3403	4	If EMS response times are provided, Transport Mode cannot be 4 (Private/Public Vehicle/Walk-in)

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.

XSD Element Name: OtherTransportMode	XSD Schema Datatype: xs:integer
XSD ComplexType: TransportMode	Multiple Entry Configuration: Yes, max 5
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3501	1	Invalid value
3502	4	Blank, required field

INITIAL FIELD SYSTOLIC BLOOD PRESSURE

Definition

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

XSD Element Name: EmsSbp	XSD Schema Datatype: xs:integer
XSD ComplexType: Sbp	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 300	

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 sheet from the scene of injury.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3601	1	Invalid value
3602	4	Blank, required field
3603	3	Invalid, out of range

INITIAL FIELD PULSE RATE

Definition

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

XSD Element Name: EmsPulseRate	XSD Schema Datatype: xs:integer
XSD ComplexType: PulseRate	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 299	

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 sheet from the scene of injury.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3701	1	Invalid value
3702	4	Blank, required field
3703	3	Invalid, out of range

INITIAL FIELD RESPIRATORY RATE

Definition

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

XSD Element Name: EmsRespiratoryRate	XSD Schema Datatype: xs:integer
XSD ComplexType: RespiratoryRate	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 120	

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 sheet from the scene of injury.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3801	1	Invalid value
3802	4	Blank, required field
3803	3	Invalid, out of range

INITIAL FIELD OXYGEN SATURATION

Definition

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

XSD Element Name: EmsPulseOximetry	XSD Schema Datatype: xs:integer
XSD ComplexType: PulseOximetry	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 100	

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 sheet from the scene of injury.
- Value should be based upon assessment before administration of supplemental oxygen.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
3901	1	Invalid value
3902	4	Blank, required field

INITIAL FIELD GCS - EYE

Definition

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

XSD Element Name: EmsGcsEye	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsEye	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 sheet 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.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
4001	1	Invalid value
4002	5	Blank, required to complete variable: Initial Field GCS -Total

INITIAL FIELD GCS - VERBAL

Definition

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

XSD Element Name: EmsGcsVerbal	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsVerbal	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

Pediatric (≤ 2 years):

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

Adult

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

Additional Information

- Used to calculate Overall GCS - EMS Score.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS run sheet 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 withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
4101	1	Invalid value
4102	5	Blank, required to complete variable: Initial Field GCS -Total

INITIAL FIELD GCS - MOTOR

Definition

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

XSD Element Name: EmsGcsMotor	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsMotor	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

Pediatric (≤ 2 years):

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

Adult

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

Additional Information

- Used to calculate Overall GCS - EMS Score.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS run sheet 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.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
4201	1	Invalid value
4202	5	Blank, required to complete variable: Initial Field GCS -Total

INITIAL FIELD GCS - TOTAL

Definition

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

XSD Element Name: EmsTotalGcs	XSD Schema Datatype: xs:integer
XSD ComplexType: TotalGcs	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 3 Maximum Value: 15	

Field Values

- Relevant value for data element

Additional Information

- Utilize only if total score is available without component scores.
- The null value "Not Known/Not Recorded" is used if the patient is transferred to your facility with no EMS run sheet 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.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
4301	1	Invalid, out of range
4302	5	Blank, required to complete variables: Initial Field GCS -Eye, Initial Field GCS -Verbal, and Initial Field GCS -Motor
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

INTER-FACILITY TRANSFER

Definition

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

XSD Element Name: InterFacilityTransfer	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 an inter-facility transfers.
- Outlying facilities purporting to provide emergency care services or utilized to stabilize a patient are considered acute care facilities.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
4401	2	Blank, required field
4402	1	Invalid value
4404	3	Not Known/Not Recorded, required Inclusion Criterion
4405	2	Not Applicable, required Inclusion Criterion

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 sheet.

XSD Element Name: TraumaCenterCriterion	XSD Schema Datatype: xs:integer
XSD ComplexType: TraumaCenterCriterion	Multiple Entry Configuration: Yes, max 11
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Glasgow Coma Score < 14
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 Sheet 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 on the EMS Run Sheet or if the EMS Run Sheet is not available.
- Check all that apply.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
9501	1	Invalid value

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 sheet.

XSD Element Name: VehicularPedestrianOther	XSD Schema Datatype: xs:integer
XSD ComplexType: VehiclePedestrianOther	Multiple Entry Configuration: Yes, max 8
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 vehicle
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

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 Sheet 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 on the EMS Run Sheet or if the EMS Run Sheet is not available.
- Check all that apply.

Data Source Hierarchy

1. EMS Run Sheet

Associated Edit Checks

Rule ID	Level	Message
9601	1	Invalid value

Emergency Department Information

ED/HOSPITAL ARRIVAL DATE

Definition

The date the patient arrived to the ED/hospital.

XSD Element Name: HospitalArrivalDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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

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

Associated Edit Checks

Rule ID	Level	Message
4501	1	Invalid value
4502	1	Date out of range
4503	2	Blank, required field
4505	2	Not Known/Not Recorded, required Inclusion Criterion
4506	3	ED/Hospital Arrival Date cannot be earlier than EMS Dispatch Date
4507	3	ED/Hospital Arrival Date cannot be earlier than EMS Unit Arrival on Scene Date
4508	3	ED/Hospital Arrival Date cannot be earlier than EMS Unit Scene Departure Date
4509	2	ED/Hospital Arrival Date cannot be later than ED Discharge Date
4510	2	ED/Hospital Arrival Date cannot be later than Hospital Discharge Date
4511	3	ED/Hospital Arrival Date cannot be earlier than Date of Birth

- 4512 3 Ed/Hospital Arrival Date must be after 1993
- 4513 3 Ed/Hospital Arrival Date minus Injury Incident Date must be less than 30 days
- 4514 3 ED/Hospital Arrival Date minus EMS Dispatch Date cannot be greater than 7 days
- 4515 2 Not Applicable, required Inclusion Criterion

ED/HOSPITAL ARRIVAL TIME

Definition

The time the patient arrived to the ED/hospital.

XSD Element Name: HospitalArrivalTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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

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

Associated Edit Checks

Rule ID	Level	Message
4601	1	Invalid value
4602	1	Time out of range
4603	4	Blank, required field
4604	4	If ED/Hospital Arrival Date and EMS Dispatch Date are the same, the ED/Hospital Arrival Time cannot be earlier than the EMS Dispatch Time
4605	4	If ED/Hospital Arrival Date and EMS Unit Arrival on Scene Date are the same, the ED/Hospital Arrival Time cannot be earlier than the EMS Unit Arrival on Scene Time
4606	4	If ED/Hospital Arrival Date and EMS Unit Scene Departure Date are the same, the ED/Hospital Arrival Time cannot be earlier than the EMS Unit Scene Departure Time
4607	4	if ED/Hospital Arrival Date and ED Discharge Date are the same, the ED/Hospital Arrival Time cannot be later than the ED Discharge Time
4608	4	if ED/Hospital Arrival Date and Hospital Discharge Date are the same, the

ED/Hospital Arrival Time cannot be later than the Hospital Discharge Time

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.

XSD Element Name: Sbp	XSD Schema Datatype: xs:integer
XSD ComplexType: Sbp	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 300	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
4701	1	Invalid value
4702	2	Blank, required field
4704	2	Invalid, out of range

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).

XSD Element Name: PulseRate	XSD Schema Datatype: xs:integer
XSD ComplexType: PulseRate	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 299	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
4801	1	Invalid value
4802	2	Blank, required field
4804	2	Invalid, out of range

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.

XSD Element Name: Temperature	XSD Schema Datatype: xs:decimal
XSD ComplexType: Temperature	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0.0 Maximum Value: 45.0	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
4901	1	Invalid value
4902	4	Blank, required field
4903	3	Invalid, out of range

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).

XSD Element Name: RespiratoryRate	XSD Schema Datatype: xs:integer
XSD ComplexType: RespiratoryRate	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 120	

Field Values

- Relevant value for data element

Additional Information

- If available, 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5001	1	Invalid value
5002	2	Blank, required field
5004	5	If completed, then Initial Ed/Hospital Respiratory Assistance must be completed.
5005	2	Invalid, out of range

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.

XSD Element Name: RespiratoryAssistance	XSD Schema Datatype: xs:integer
XSD ComplexType: RespiratoryAssistance	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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.

Data Source Hierarchy

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5101	1	Invalid value
5102	2	Blank, required field
5103	2	Blank, required to complete when Initial ED/Hospital Respiratory Rate is complete

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).

XSD Element Name: PulseOximetry	XSD Schema Datatype: xs:integer
XSD ComplexType: PulseOximetry	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 100	

Field Values

- Relevant value for data element

Additional Information

- If available, 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5201	1	Invalid value
5202	4	Blank, required field
5203	5	If completed, then Initial Ed/Hospital Supplemental Oxygen must be completed

INITIAL ED/HOSPITAL SUPPLEMENTAL OXYGEN

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.

XSD Element Name: SupplementalOxygen	XSD Schema Datatype: xs:integer
XSD ComplexType: SupplementalOxygen	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. No Supplemental Oxygen
2. Supplemental Oxygen

Additional Information

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

Data Source Hierarchy

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5301	1	Invalid value
5303	4	Blank, required to complete when Initial ED/Hospital Oxygen Saturation is complete

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.

XSD Element Name: GcsEye	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsEye	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5401	1	Invalid value
5402	5	Blank, required to complete variable: Initial ED/Hospital GCS -Total

Definition

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

XSD Element Name: GcsVerbal	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsVerbal	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field ValuesPediatric (≤ 2 years):

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

Adult

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

Additional Information

- Used to calculate Overall GCS - ED Score.
- 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 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5501	1	Invalid value
5502	5	Blank, required to complete variable: Initial ED/Hospital GCS -Total

INITIAL ED/HOSPITAL GCS - MOTOR

Definition

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

XSD Element Name: GcsMotor	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsMotor	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

Pediatric (≤ 2 years):

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

Adult

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

Additional Information

- Used to calculate Overall GCS – ED Score.
- 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5601	1	Invalid value
5602	5	Blank, required to complete variable: Initial ED/Hospital GCS -Total

INITIAL ED/HOSPITAL GCS - TOTAL

Definition

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

XSD Element Name: TotalGcs	XSD Schema Datatype: xs:integer
XSD ComplexType: TotalGcs	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 3 Maximum Value: 15	

Field Values

- Relevant value for data element

Additional Information

- Utilize only if total score is available without component scores.
- 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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5701	1	Invalid, out of range
5702	5	Blank, required to complete if Initial ED/Hospital GCS -Eye, Initial ED/Hospital GCS -Verbal, and Initial ED/Hospital GCS -Motor are Not Applicable or Not Known/Not Recorded
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
5704	4	ONE of the following: Initial ED/Hospital GCS -Eye, Initial ED/Hospital GCS -Verbal, or Initial ED/Hospital GCS -Motor is blank but Initial ED/Hospital GCS -Total is completed

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.

XSD Element Name: GcsQualifier	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsQualifier	Multiple Entry Configuration: Yes, max 3
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. EMS Run Sheet
4. Nurses notes

Associated Edit Checks

Rule ID	Level	Message
5801	1	Invalid value
5802	2	Blank, required field

INITIAL ED/HOSPITAL HEIGHT**Definition**

First recorded height upon ED/hospital arrival.

XSD Element Name: Height	XSD Schema Datatype: xs:integer
XSD ComplexType: Height	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 244	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. EMS Run Sheet
4. Nurses notes
5. Self-report
6. Family report

Associated Edit Checks

Rule ID	Level	Message
8501	1	Invalid value
8502	2	Blank, required field
8503	3	Invalid, out of range

INITIAL ED/HOSPITAL WEIGHT

Definition

Measured or estimated baseline weight.

XSD Element Name: Weight	XSD Schema Datatype: xs:integer
XSD ComplexType: Weight	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 907	

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

1. Triage Form / Trauma Flow Sheet
2. ED Record
3. EMS Run Sheet
4. Nurses notes
5. Self-report
6. Family report

Associated Edit Checks

Rule ID	Level	Message
8601	1	Invalid value
8602	2	Blank, required field
8603	3	Invalid, out of range

ALCOHOL USE INDICATOR

Definition

Use of alcohol by the patient.

XSD Element Name: AlcoholUseIndicators	XSD Schema Datatype: xs:integer
XSD ComplexType: AlcoholUseIndicators	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|---------------------------|---|
| 1. No (not tested) | 3. Yes (confirmed by test [trace levels]) |
| 2. No (confirmed by test) | 4. Yes (confirmed by test [beyond legal limit]) |

Additional Information

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

Data Source Hierarchy

1. Lab Results
2. ED Physician Notes

Associated Edit Checks

Rule ID	Level	Message
5901	1	Invalid value
5902	4	Blank, required field

DRUG USE INDICATOR

Definition

Use of drugs by the patient.

XSD Element Name: DrugUseIndicator	XSD Schema Datatype: xs:integer
XSD ComplexType: DrugUseIndicator	Multiple Entry Configuration: Yes, max 2
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|---------------------------|--|
| 1. No (not tested) | 3. Yes (confirmed by test [prescription drug]) |
| 2. No (confirmed by test) | 4. Yes (confirmed by test [illegal use drug]) |

Additional Information

- Drug use may be documented at any facility (or setting) treating this patient event.
- "Illegal use drug" includes illegal use of prescription drugs.
- If drug use is suspected, but not confirmed by test, record null value "Not Known/Not Recorded."
- This data element refers to drug use by the patient and does not include medical treatment.
- Check all that apply.

Data Source Hierarchy

1. Lab Results
2. ED Physician Notes

Associated Edit Checks

Rule ID	Level	Message
6001	1	Invalid value
6002	4	Blank, required field

ED DISCHARGE DISPOSITION

Definition

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

XSD Element Name: EdDischargeDisposition	XSD Schema Datatype: xs:integer
XSD ComplexType: EdDischargeDisposition	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

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

1. Discharge Sheet
2. Nursing Progress Notes
3. Social Worker Notes

Associated Edit Checks

Rule ID	Level	Message
6101	1	Invalid value
6102	2	Blank, required field
6104	2	Not Known/Not Recorded, required Inclusion Criterion
6105	3	Not Applicable, required Inclusion Criterion

SIGNS OF LIFE

Definition

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

XSD Element Name: DeathInEd	XSD Schema Datatype: xs:integer
XSD ComplexType: DeathInEd	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

1. Triage Form / Trauma Flow Sheet
2. Physician's Progress Notes
3. ED Nurses' Notes

Associated Edit Checks

Rule ID	Level	Message
6201	1	Invalid value
6202	2	Blank, required field
6206	3	Not Known/Not Recorded, required Inclusion Criterion
6207	2	Field cannot be Not Applicable

ED DISCHARGE DATE

Definition

The date the patient was discharged from the ED.

XSD Element Name: EdDischargeDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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.

Data Source Hierarchy

1. Hospital Discharge Summary
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Physician's Progress Notes

Associated Edit Checks

Rule ID	Level	Message
6301	1	Invalid value
6302	1	Date out of range
6303	4	Blank, required field
6304	4	ED Discharge Date cannot be earlier than EMS Dispatch Date
6305	4	ED Discharge Date cannot be earlier than EMS Unit Arrival on Scene Date
6306	4	ED Discharge Date cannot be earlier than EMS Unit Scene Departure Date
6307	2	ED Discharge Date cannot be earlier than ED/Hospital Arrival Date
6308	2	ED Discharge Date cannot be later than Hospital Discharge Date
6309	3	ED Discharge Date cannot be earlier than Date of Birth
6310	3	ED Discharge Date minus ED/Hospital Arrival Date cannot be greater than 365 days

ED DISCHARGE TIME

Definition

The time the patient was discharged from the ED.

XSD Element Name: EdDischargeTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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.

Data Source Hierarchy

1. Hospital Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Physician's Progress Notes

Associated Edit Checks

Rule ID	Level	Message
6401	1	Invalid value
6402	1	Time out of range
6403	4	Blank, required field
6404	4	If ED Discharge Date and EMS Dispatch Date are the same, the ED Discharge Time cannot be earlier than the EMS Dispatch Time
6405	4	If ED Discharge Date and EMS Unit Arrival on Scene Date are the same, the ED Discharge Time cannot be earlier than the EMS Unit Arrival on Scene Time
6406	4	If ED Discharge Date and EMS Unit Scene Departure Date are the same, the ED Discharge Time cannot be earlier than the EMS Unit Scene Departure Time
6407	4	If ED Discharge Date and ED/Hospital Arrival Date are the same, the ED Discharge Time cannot be earlier than the ED/Hospital Arrival Time
6408	4	If ED Discharge Date and Hospital Discharge Date are the same, the ED Discharge Time cannot be later than the Hospital Discharge Time

Hospital Procedure Information

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. This list is based on procedures sent to NTDB with a high frequency. Not all hospitals capture all procedures listed below. Please transmit those procedures that you capture to NTDB.

XSD Element Name: HospitalProcedure	XSD Schema Datatype: xs:string
XSD ComplexType: HospitalProcedure	Multiple Entry Configuration: Yes, max 200
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 4 Maximum Length: 7	RegEx Pattern: (\d{2}\.\d{1,2})

Field Values

- Major and minor procedure ICD-9-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.
- The null value "Not Known/Not Recorded" is used if not coding ICD-9.

Diagnostic and Therapeutic Imaging

Computerized tomographic studies *
 Diagnostic ultrasound (includes FAST) *
 Doppler ultrasound of extremities *
 Angiography
 Angioembolization

 Echocardiography
 Cystogram
 IVC filter
 Urethrogram

Genitourinary

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

Transfusion

The following blood products should be captured over first 24 hours after hospital arrival:
 Transfusion of red cells *
 Transfusion of platelets *
 Transfusion of plasma *
 In addition to coding the individual blood products listed above assign the 99.01 ICD-9 procedure code

on patients that receive > 10 units of blood products over first 24 hours following hospital arrival *

For pediatric patients (age 14 and under), assign 99.01 ICD-9 procedure code on patients that receive 40cc/kg of blood products over first 24 hours following hospital arrival*

Cardiovascular

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

CNS

Insertion of ICP monitor *
Ventriculostomy *

Cerebral oxygen monitoring *

Musculoskeletal

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

Respiratory

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

Gastrointestinal

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

Other

Hyperbaric oxygen
Decompression chamber
TPN *

Data Source Hierarchy

1. Operative Reports
2. ER and ICU Records
3. Trauma Flow Sheet
4. Anesthesia Record
5. Billing Sheet / Medical Records Coding Summary Sheet
6. Hospital Discharge Summary

Associated Edit Checks

Rule ID	Level	Message
6501	1	Invalid value
6502	1	Procedures with the same code cannot have the same Hospital Procedure Start Date and Time.
6503	4	Blank, must either (1) contain a valid ICD-9 code or (2) be Not Known/Not Recorded if not coding ICD-9
6504	4	Not Applicable, must either (1) contain a valid ICD-9 code or (2) be Not Known/Not

Recorded if not coding ICD-9

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. This list is based on procedures sent to NTDB with a high frequency. Not all hospitals capture all procedures listed below. Please transmit those procedures that you capture to NTDB.

XSD Element Name: HospitalProcedureIcd10	XSD Schema Datatype: xs:string
XSD ComplexType: HospitalProcedureIcd10	Multiple Entry Configuration: Yes, max 200
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 7 Maximum Length: 7	RegEx Pattern: [A-H0-9][A-HJ-NP-Z0-9]{6}

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.
- The null value "Not Known/Not Recorded" is used if not coding ICD-10.

Diagnostic and Therapeutic Imaging

Computerized tomographic studies *
 Diagnostic ultrasound (includes FAST) *
 Doppler ultrasound of extremities *
 Angiography
 Angioembolization

 Echocardiography
 Cystogram
 IVC filter
 Urethrogram

Genitourinary

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

Transfusion

The following blood products should be captured over first 24 hours after hospital arrival:
 Transfusion of red cells *
 Transfusion of platelets *
 Transfusion of plasma *
 In addition to coding the individual blood products listed above assign the appropriate procedure code

on patients that receive > 10 units of blood products over first 24 hours following hospital arrival *

For pediatric patients (age 14 and under), assign the appropriate procedure code on patients that receive 40cc/kg of blood products over first 24 hours following hospital arrival*

Cardiovascular

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

CNS

- Insertion of ICP monitor *
- Ventriculostomy *

- Cerebral oxygen monitoring *

Musculoskeletal

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

Respiratory

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

Gastrointestinal

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

Other

- Hyperbaric oxygen
- Decompression chamber
- TPN *

Data Source Hierarchy

1. Operative Reports
2. ER and ICU Records
3. Trauma Flow Sheet
4. Anesthesia Record
5. Billing Sheet / Medical Records Coding Summary Sheet
6. Hospital Discharge Summary

Associated Edit Checks

Rule ID	Level	Message
8801	1	Invalid value
8802	1	Procedures with the same code cannot have the same Hospital Procedure Start Date and Time
8803	4	Blank, must either (1) contain a valid ICD-10 code or (2) be Not Known/Not Recorded if not coding ICD-10
8804	4	Not Applicable, must either (1) contain a valid ICD-10 code or (2) be Not Known/Not

Recorded if not coding ICD-10

HOSPITAL PROCEDURE START DATE

Definition

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

XSD Element Name: HospitalProcedureStartDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: Yes, max 200
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

Field Values

- Relevant value for data element

Additional Information

- Collected as YYYY-MM-DD.

Data Source Hierarchy

1. OR Nurses' Notes
2. Operative Reports
3. Anesthesia Record

Associated Edit Checks

Rule ID	Level	Message
6601	1	Invalid value
6602	1	Date out of range
6603	4	Hospital Procedure Start Date cannot be earlier than EMS Dispatch Date
6604	4	Hospital Procedure Start Date cannot be earlier than EMS Unit Arrival on Scene Date
6605	4	Hospital Procedure Start Date cannot be earlier than EMS Unit Scene Departure Date
6606	4	Hospital Procedure Start Date cannot be earlier than ED/Hospital Arrival Date
6607	4	Hospital Procedure Start Date cannot be later than Hospital Discharge Date
6608	4	Hospital Procedure Start Date cannot be earlier than Date of Birth
6609	4	Blank, required field

HOSPITAL PROCEDURE START TIME

Definition

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

XSD Element Name: HospitalProcedureStartTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: Yes, max 200
Required in XSD: Yes	Accepts Null Value: yes, common null values

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

1. OR Nurses' Notes
2. Operative Reports
3. Anesthesia Record

Associated Edit Checks

Rule ID	Level	Message
6701	1	Invalid value
6702	1	Time out of range
6703	4	If Hospital Procedure Start Date and EMS Dispatch Date are the same, the Hospital Procedure Start Time cannot be earlier than the EMS Dispatch Time
6704	4	If Hospital Procedure Start Date and EMS Unit Arrival on Scene Date are the same, the Hospital Procedure Start Time cannot be earlier than the EMS Unit Arrival on Scene Time
6705	4	if Hospital Procedure Start Date and EMS Unit Scene Departure Date are the same, the Hospital Procedure Start Time cannot be earlier than the EMS Unit Scene Departure Time
6706	4	If Hospital Procedure Start Date and ED/Hospital Arrival Date are the same, the Hospital Procedure Start Time cannot be earlier than the ED/Hospital Arrival Time
6707	4	If Hospital Procedure Start Date and Hospital Discharge Date are the same, the Hospital Procedure Start Time cannot be later than the Hospital Discharge Time
6708	4	Blank, required field

Diagnosis Information

CO-MORBID CONDITIONS

Definition

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

XSD Element Name: ComorbidCondition	XSD Schema Datatype: xs:integer
XSD ComplexType: ComorbidCondition	Multiple Entry Configuration: Yes, max 28
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|--|---|
| 1. Other | 16. History of angina within 30 days |
| 2. Alcoholism | 17. History of myocardial infarction |
| 3. Ascites within 30 days | 18. History of PVD |
| 4. Bleeding disorder | 19. Hypertension requiring medication |
| 5. Currently receiving chemotherapy for cancer | 20. RETIRED 2012 Impaired sensorium |
| 6. Congenital anomalies | 21. Prematurity |
| 7. Congestive heart failure | 22. Obesity |
| 8. Current smoker | 23. Respiratory disease |
| 9. Chronic renal failure | 24. Steroid use |
| 10. CVA/residual neurological deficit | 25. Cirrhosis |
| 11. Diabetes mellitus | 26. Dementia |
| 12. Disseminated cancer | 27. Major psychiatric illness |
| 13. Advanced directive limiting care | 28. Drug or dependence |
| 14. Esophageal varices | 29. Pre-hospital cardiac arrest with resuscitative efforts by healthcare provider |
| 15. Functionally dependent health status | |

Additional Information

- The null value "Not Applicable" is used for patients with no known co-morbid conditions.
- Refer to Appendix 3: Glossary of Terms for definition of Co-Morbid Conditions.
- Check all that apply.

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
6801	1	Invalid value

6802 2 Blank, required field

ICD-9 INJURY DIAGNOSES

Definition

Diagnoses related to all identified injuries.

XSD Element Name: InjuryDiagnosis	XSD Schema Datatype: xs:string
XSD ComplexType: InjuryDiagnosis	Multiple Entry Configuration: Yes, max 50
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 6	RegEx Pattern: ((([vV] [0-9])\d{2}(\.\d{1,2})?))

Field Values

- Injury diagnoses as defined by ICD-9-CM code range: 800-959.9, except for 905 – 909.9, 910 – 924.9, 930 – 939.9. The maximum number of diagnoses that may be reported for an individual patient is 50.

Additional Information

- ICD-9-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.
- The null value "Not Applicable" is used if not coding ICD-9.

Data Source Hierarchy

1. Hospital Discharge Summary
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Trauma Flow Sheet
4. ER and ICU Records

Associated Edit Checks

Rule ID	Level	Message
6901	1	Invalid value
6902	4	Blank, must either (1) contain a valid ICD-9 code or (2) be Not Applicable if not coding ICD-9
6903	2	If coding with ICD-9, then at least one diagnosis must be provided and meet inclusion criteria (800 -959.9, except for 905 -909.9, 910 -924.9, 930 -939.9)
6904	4	Not Known/Not Recorded, required Inclusion Criterion

ICD-10 INJURY DIAGNOSES

Definition

Diagnoses related to all identified injuries.

XSD Element Name: DiagnosisIcd10	XSD Schema Datatype: xs:string
XSD ComplexType: DiagnosisIcd10	Multiple Entry Configuration: Yes, max 50
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Length: 3 Maximum Length: 8	RegEx Pattern: [A-TZ][0-9][0-9AB](\[xA-HJ-NP-Z0-9]{1,4})?

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.
- The null value "Not Applicable" is used if not coding ICD-10.

Data Source Hierarchy

1. Hospital Discharge Summary
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Trauma Flow Sheet
4. ER and ICU Records

Associated Edit Checks

Rule ID	Level	Message
8701	1	Invalid value
8702	4	Blank, must either (1) contain a valid ICD-10 code or (2) be Not Applicable if not coding ICD-10
8703	2	If coding with ICD-10, then at least one diagnosis must be provided and meet inclusion criteria.
8704	4	Not Known/Not Recorded, required Inclusion Criterion

Injury Severity Information

AIS PREDOT CODE

Definition

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

XSD Element Name: AisPredot	XSD Schema Datatype: xs:string
XSD ComplexType: AisPredot	Multiple Entry Configuration: Yes, max 50
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

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

Additional Information

- This variable is considered optional and is not required as part of the NTDS dataset.

Data Source Hierarchy

Associated Edit Checks

Rule ID	Level	Message
7001	1	Invalid value
7002	5	If completed, then AIS Severity must be completed.
7003	5	If completed, then AIS Version must be completed.
7004	3	AIS PreDot codes are version AIS 2005 but do not match the AIS Version used
7005	3	AIS PreDot codes are version AIS 1998 but do not match the AIS Version used
7006	4	Both AIS 2005 and AIS 1998 versions have been detected in the same record

AIS SEVERITY

Definition

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

XSD Element Name: AisSeverity	XSD Schema Datatype: xs:integer
XSD ComplexType: AisSeverity	Multiple Entry Configuration: Yes, max 50
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

- This variable is considered optional and is not required as part of the NTDS dataset.
- The 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

Associated Edit Checks

Rule ID	Level	Message
7101	1	Invalid value
7102	5	If completed, then AIS Version must be completed.
7103	4	Blank, required to complete when AIS PreDot Code is complete

ISS BODY REGION

Definition

The Injury Severity Score (ISS) body region codes that reflect the patient's injuries.

XSD Element Name: IssRegion	XSD Schema Datatype: xs:integer
XSD ComplexType: IssRegion	Multiple Entry Configuration: Yes, max 50
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

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

Data Source Hierarchy

Associated Edit Checks

Rule ID	Level	Message
7201	1	Invalid value
7202	5	If completed, then AIS Severity must be completed.
7203	5	If completed, then AIS Version must be completed.

AIS VERSION

Definition

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

XSD Element Name: AisVersion	XSD Schema Datatype: xs:integer
XSD ComplexType: AisVersion	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|-----------|-----------|
| 1. AIS 80 | 4. AIS 95 |
| 2. AIS 85 | 5. AIS 98 |
| 3. AIS 90 | 6. AIS 05 |

Additional Information

- This variable is considered optional and is not required as part of the NTDS dataset.

Data Source Hierarchy

Associated Edit Checks

Rule ID	Level	Message
7301	1	Invalid value
7302	4	Blank, required to complete when AIS PreDot Code, AIS Severity, or ISS Body Region are provided.

LOCALLY CALCULATED ISS

Definition

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

XSD Element Name: IssLocal	XSD Schema Datatype: xs:integer
XSD ComplexType: IssLocal	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1 Maximum Value: 75	

Field Values

- Relevant ISS value for the constellation of injuries

Additional Information

- This variable is considered optional and is not required as part of the NTDS dataset.

Data Source Hierarchy

Associated Edit Checks

Rule ID	Level	Message
7401	1	Invalid value
7402	3	Must be the sum of three squares

Outcome Information

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.

XSD Element Name: TotallcuLos	XSD Schema Datatype: xs:integer
XSD ComplexType: TotallcuLos	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1 Maximum Value: 400	

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.
- If any dates are missing then a LOS cannot be calculated.
- If patient has multiple ICU episodes on the same calendar day, count that day as one calendar day.
- At no time should the ICU LOS exceed the Hospital LOS.
- 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

1. ICU Nursing Flow Sheet

2. Calculate Based on Admission Form and Discharge Sheet
3. Nursing Progress Notes

Associated Edit Checks

Rule ID	Level	Message
7501	1	Invalid, out of range
7502	3	Blank, required field
7503	3	Total ICU Length of Stay should not be greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date
7504	3	Should not be greater than 365

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.

XSD Element Name: TotalVentDays	XSD Schema Datatype: xs:integer
XSD ComplexType: TotalVentDays	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1 Maximum Value: 400	

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.
- If any dates are missing then a Total Vent Days cannot be calculated.
- At no time should the Total Vent Days exceed the Hospital LOS.
- 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	1 day (2 episodes within one calendar day)
	01/01/11	16:00	01/01/11	18:00	
C.	01/01/11	01:00	01/01/11	04:00	2 days (episodes on 2 separate calendar days)
	01/02/11	16:00	01/02/11	18:00	
D.	01/01/11	01:00	01/01/11	16:00	2 days (episodes on 2 separate calendar days)
	01/02/11	09:00	01/02/11	18:00	
E.	01/01/11	01:00	01/01/11	16:00	2 days (episodes on 2 separate calendar days)
	01/02/11	09:00	01/02/11	21:00	
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	2 days (patient was in on Vent on 2 separate calendar days)
	01/02/11	18:00	01/02/11	20:00	
J.	01/01/11	Unknown	01/02/11	16:00	3 days (patient was on Vent on 3 separate calendar days)
	01/03/11	18:00	01/03/11	20:00	
K.	Unknown	Unknown	01/02/11	16:00	Unknown (can't compute total)
	01/03/11	18:00	01/03/11	20:00	

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
7601	1	Invalid, out of range
7602	4	Blank, required field
7603	4	Total Ventilator Days should not be greater than the difference between ED/Hospital Arrival Date and Hospital Discharge Date
7604	4	Should not be greater than 365

HOSPITAL DISCHARGE DATE

Definition

The date the patient was discharged from the hospital.

XSD Element Name: HospitalDischargeDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date19902030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 1990-01-01 Maximum Value: 2030-01-01	

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 (Died).
- The null value "Not Applicable" is used if If ED Discharge Disposition = 4,6,9,10, or 11.

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
7701	1	Invalid value
7702	1	Date out of range
7703	3	Blank, required field
7704	3	Hospital Discharge Date cannot be earlier than EMS Dispatch Date
7705	3	Hospital Discharge Date cannot be earlier than EMS Unit Arrival on Scene Date
7706	3	Hospital Discharge Date cannot be earlier than EMS Unit Scene Departure Date
7707	2	Hospital Discharge Date cannot be earlier than ED/Hospital Arrival Date
7708	2	Hospital Discharge Date cannot be earlier than ED Discharge Date
7709	3	Hospital DischargeDate cannot be earlier than Date of Birth
7710	3	Hospital Discharge Date minus Injury Incident Date cannot be greater than 365 days
7711	3	Hospital Discharge Date minus ED/Hospital Arrival Date cannot be greater than 365

days

- 7712 2 If ED Discharge Disposition = 4,6,9,10, or 11 then Hospital Discharge Date must be NA (BIU = 1)
- 7713 2 If ED Discharge Disposition = 5 (Died) then Hospital Discharge Date should be NA (BIU=1)

HOSPITAL DISCHARGE TIME

Definition

The time the patient was discharged from the hospital.

XSD Element Name: HospitalDischargeTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 (Died).
- The null value "Not Applicable" is used if If ED Discharge Disposition = 4,6,9,10, or 11.

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
7801	1	Invalid value
7802	1	Time out of range
7803	4	Blank, required field
7804	4	If Hospital Discharge Date and EMS Dispatch Date are the same, the Hospital Discharge Time cannot be earlier than the EMS Dispatch Time
7805	4	If Hospital Discharge Date and EMS Unit Arrival on Scene Date are the same, the Hospital Discharge Time cannot be earlier than the EMS Unit Arrival on Scene Time
7806	4	If Hospital Discharge Date and EMS Unit Scene Departure Date are the same, the Hospital Discharge Time cannot be earlier than the EMS Unit Scene Departure Time
7807	4	If Hospital Discharge Date and ED/Hospital Arrival Date are the same, the Hospital Discharge Time cannot be earlier than the ED/Hospital Arrival Time
7808	4	If Hospital Discharge Date and ED Discharge Date are the same, the Hospital Discharge Time cannot be earlier than the ED Discharge Time
7809	2	If ED Discharge Disposition = 4,6,9,10, or 11 then Hospital Discharge Time must be

7810 2 NA (BIU = 1)
 If ED Discharge Disposition = 5 (Died) then Hospital Discharge Time should be NA
 (BIU=1)

HOSPITAL DISCHARGE DISPOSITION

O_05

Definition

The disposition of the patient when discharged from the hospital.

XSD Element Name: HospitalDischargeDisposition	XSD Schema Datatype: xs:integer
XSD ComplexType: HospitalDischargeDisposition	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|---|--|
| 1. Discharged/Transferred to a short-term general hospital for inpatient care | 8. Discharged/ Transferred to hospice care |
| 2. Discharged/Transferred to an Intermediate Care Facility (ICF) | 9. RETIRED 2014 Discharged/Transferred to another type of rehabilitation or long term care facility |
| 3. Discharge/Transferred to home under care of organized home health service | 10. Discharged/Transferred to court/law enforcement. |
| 4. Left against medical advice or discontinued care | 11. Discharged/Transferred to inpatient rehab or designated unit |
| 5. Expired | 12. Discharged/Transferred to Long Term Care Hospital (LTCH) |
| 6. Discharged home with no home services | 13. Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital |
| 7. Discharged/Transferred to Skilled Nursing Facility (SNF) | 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 (Died).
- The null value "Not Applicable" is used if If ED Discharge Disposition = 4,6,9,10, or 11.

Data Source Hierarchy

1. Hospital Discharge Summary Sheet
2. Nurses' notes
3. Case Manager / Social Services' Notes

Associated Edit Checks

Rule ID	Level	Message
7901	1	Invalid value
7902	2	Blank, required field
7903	2	If ED Discharge Disposition = 5 (Died) then Hospital Discharge Disposition should be NA (BIU=1)
7906	2	If ED Discharge Disposition = 1,2,3,7, or 8 then Hospital Discharge Disposition cannot be blank
7907	2	If ED Discharge Disposition = 4,6,9,10, or 11 then Hospital Discharge Disposition must be NA (BIU = 1)
7908	2	Not Applicable, required Inclusion Criterion
7909	2	If Hospital Arrival Date and Hospital Discharge Date are valued, the Hospital Discharge Disposition cannot be Not Known/Not Recorded

Financial Information

PRIMARY METHOD OF PAYMENT

F_01

Definition

Primary source of payment for hospital care.

XSD Element Name: PrimaryMethodPayment	XSD Schema Datatype: xs:integer
XSD ComplexType: PrimaryMethodPayment	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
8001	1	Invalid value
8002	4	Blank, required field

Quality Assurance Information

HOSPITAL COMPLICATIONS

Definition

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

XSD Element Name: HospitalComplication	XSD Schema Datatype: xs:integer
XSD ComplexType: HospitalComplication	Multiple Entry Configuration: Yes, max 23
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Other	17. RETIRED 2011 Intracranial pressure
2. RETIRED 2011 Abdominal compartment syndrome	18. Myocardial infarction
3. RETIRED 2011 Abdominal fascia left open	19. Organ/space surgical site infection
4. Acute kidney injury	20. Pneumonia
5. Acute lung injury/Acute respiratory distress syndrome (ARDS)	21. Pulmonary embolism
6. RETIRED 2011 Base deficit	22. Stroke / CVA
7. RETIRED 2011 Bleeding	23. Superficial surgical site infection
8. Cardiac arrest with resuscitative efforts by healthcare provider	24. RETIRED 2011 Systemic sepsis
9. RETIRED 2011 Coagulopathy	25. Unplanned intubation
10. RETIRED 2011 Coma	26. RETIRED 2011 Wound disruption
11. Decubitus ulcer	27. Urinary tract infection
12. Deep surgical site infection	28. Catheter-related blood stream infection
13. Drug or alcohol withdrawal syndrome	29. Osteomyelitis
14. Deep Vein Thrombosis (DVT) / thrombophlebitis	30. Unplanned return to the OR
15. Extremity compartment syndrome	31. Unplanned return to the ICU
16. Graft/prosthesis/flap failure	32. Severe sepsis

Additional Information

- The null value "Not Applicable" should be used for patients with no complications.
- Refer to Appendix 3: Glossary of Terms for definitions of Complications.
- Check all that apply.

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
8101	1	Invalid value
8102	2	Blank, required field

TRAUMA QUALITY IMPROVEMENT PROGRAM

Measures for Processes of Care

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

HIGHEST GCS TOTAL

Collection Criterion: Collect on patients with at least one injury in AIS head region

Definition

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

XSD Element Name: TbiHighestTotalGcs	XSD Schema Datatype: xs:integer
XSD ComplexType: TotalGcs	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 3 Maximum Value: 15	

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

1. Physician (NS) notes
2. Nursing Unit / ICU Flow Sheet
3. Trauma Flow Sheet

Associated Edit Checks

Rule ID	Level	Message
10001	1	Invalid, out of range
10002	2	Blank, required field
10003	2	Highest GCS Total cannot be less than GCS Motor Component of Highest GCS Total

HIGHEST GCS MOTOR

Collection Criterion: Collect on patients with at least one injury in AIS head region

Definition

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

XSD Element Name: TbiGcsMotor	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsMotor	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

Pediatric (≤ 2 years):

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

Adult

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

Additional Information

- 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. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

Data Source Hierarchy

- Physician (NS) notes
- Nursing Unit / ICU Flow Sheet
- Trauma Flow Sheet

Associated Edit Checks

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

10101	1	Invalid value
10102	2	Blank, required field

GCS ASSESSMENT QUALIFIER COMPONENT OF HIGHEST GCS TOTAL

Collection Criterion: Collect on patients with at least one injury in AIS head region

Definition

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

XSD Element Name: TbiGcsQualifier	XSD Schema Datatype: xs:integer
XSD ComplexType: GcsQualifier	Multiple Entry Configuration: Yes, max 3
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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 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 5-10minutes.
- Check all that apply.

Data Source Hierarchy

1. Trauma Flow Sheet
2. Nursing Unit / ICU Flow Sheet
3. Physician / Progress Notes

Associated Edit Checks

Rule ID	Level	Message
10201	1	Invalid value
10202	2	Blank, required field

CEREBRAL MONITOR

Collection Criterion: Collect on patients with at least one injury in AIS head region

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.

XSD Element Name: TbiCerebralMonitor	XSD Schema Datatype: xs:integer
XSD ComplexType: TbiCerebralMonitor	Multiple Entry Configuration: Yes, max 4
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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

Additional Information

- Refers to insertion of an intracranial pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI.
- The null value "Not Applicable" is used if the patient did not have a cerebral monitor.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Check all that apply.

Data Source Hierarchy

1. Procedure note
2. Nursing Unit Flow Sheet
3. Operative Note
4. Physician / Progress notes
5. Anesthesia Record

Associated Edit Checks

Rule ID	Level	Message
10301	1	Invalid value
10302	2	Blank, required field

CEREBRAL MONITOR DATE

Definition

Date of first cerebral monitor placement.

XSD Element Name: TbiCerebralMonitorDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date20102030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 2010-01-01 Maximum Value: 2030-01-01	

Field Values

- Relevant value for data element

Additional Information

- Collected as YYYY-MM-DD.
- The null value "Not Applicable" is used if the patient did not have a cerebral monitor.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Data Source Hierarchy

1. Procedure note
2. Anesthesia record
3. Nursing unit Flow sheet
4. Operation Note
5. Physician / Progress note

Associated Edit Checks

Rule ID	Level	Message
10401	1	Invalid value
10402	2	Blank, required field
10403	1	Date out of range
10404	2	If Cerebral Monitor is complete, Cerebral Monitor Date cannot be blank or NA
10405	3	If Cerebral Monitor is complete, Cerebral Monitor Date cannot be Not Known/Not Recorded
10407	4	Cerebral Monitor Date cannot be earlier than ED/Hospital Arrival
10408	4	Cerebral Monitor Date cannot be later than Hospital Discharge Date
10409	2	If Cerebral Monitor is NA, then Cerebral Monitor Date should be NA.

CEREBRAL MONITOR TIME

Collection Criterion: Collect on patients with at least one injury in AIS head region

Definition

Time of first cerebral monitor placement.

XSD Element Name: TbiCerebralMonitorTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

Field Values

- Relevant value for data element

Additional Information

- Collected as HH:MM military time.
- The null value "Not Applicable" is used if the patient did not have a cerebral monitor.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Data Source Hierarchy

1. Procedure note
2. Anesthesia record
3. Nursing unit Flow sheet
4. Operation Note
5. Physician / Progress note

Associated Edit Checks

Rule ID	Level	Message
10501	1	Invalid value
10502	1	Time out of range
10503	2	Blank, required field
10504	2	If Cerebral Monitor is complete, Cerebral Monitor Time cannot be blank or NA
10505	3	If Cerebral Monitor is complete, Cerebral Monitor Time cannot be Not Known/Not Recorded
10506	4	If ED/Hospital Arrival Date and Cerebral Monitor Date are the same then Cerebral Monitor Time cannot be earlier than ED/Hospital Arrival Time
10507	4	If Hospital Discharge Date and Cerebral Monitor Date are the same then Cerebral Monitor Time cannot be later than Hospital Discharge Time
10508	2	If Cerebral Monitor is NA, then Cerebral Monitor Time should be NA.

VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE

PM_07

Collection Criterion: Collect on all patients

Definition

Type of first dose of VTE prophylaxis administered to patient.

XSD Element Name: VteProphylaxisType	XSD Schema Datatype: xs:integer
XSD ComplexType: VteProphylaxisType	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Heparin
2. ~~RETIRED 2013 Lovenox (Enoxaparin)~~
3. ~~RETIRED 2013 Fragmin (Dalteparin)~~
4. ~~RETIRED 2013 Other low molecular weight heparins (including but not limited to Tinzaparin (Innohep, Logiparin); Nadroparin (Fraxiparin).~~
5. None
6. LMWH (Dalteparin, Enoxaparin, etc.)
7. Direct Thrombin Inhibitor (Dabigatran, etc.)
8. Oral Xa Inhibitor (Rivaroxaban, etc.)
9. Coumadin
10. Other

Additional Information

Data Source Hierarchy

1. Pharmacy Record
2. Charted Medications

Associated Edit Checks

Rule ID	Level	Message
10601	1	Invalid value
10602	2	Blank, required field
10603	2	Field cannot be Not Applicable

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.

XSD Element Name: VteProphylaxisDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date20102030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 2010-01-01 Maximum Value: 2030-01-01	

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 = "5 None".

Data Source Hierarchy

1. Pharmacy Record
2. Charted Medications

Associated Edit Checks

Rule ID	Level	Message
10701	1	Invalid value
10702	1	Date out of range
10703	2	Blank, required field
10704	2	If VTE Prophylaxis is valued, then VTE Prophylaxis Date cannot be blank
10705	2	If VTE Prophylaxis is valued and not 'None', then VTE Prophylaxis Date cannot be NA
10706	4	VTE Prophylaxis Date cannot be earlier than ED/Hospital Arrival Date
10707	4	VTE Prophylaxis Date cannot be later than Hospital Discharge Date
10708	2	If VTE Prophylaxis is 'None', then VTE Prophylaxis Date should be NA

VENOUS THROMBOEMBOLISM PROPHYLAXIS TIME

PM_09

Collection Criterion: Collect on all patients

Definition

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

XSD Element Name: VteProphylaxisTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 TYPE field.
- The null value "Not Applicable" is used if VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE = "5 None".

Data Source Hierarchy

1. Pharmacy Record
2. Charted Medications

Associated Edit Checks

Rule ID	Level	Message
10801	1	Invalid value
10802	1	Time out of range
10803	2	Blank, required field
10804	2	If VTE Prophylaxis is valued, then VTE Prophylaxis Time cannot be blank
10805	2	If VTE Prophylaxis is valued and not 'None', then VTE Prophylaxis Time cannot be NA
10806	4	If ED Hospital/Arrival Date and VTE Prophylaxis Date are the same, VTE Prophylaxis Time cannot be earlier than ED/Hospital Arrival Time
10807	4	If Hospital Discharge Date and VTE Prophylaxis Date are the same, VTE Prophylaxis Time cannot be later than Hospital Discharge Time
10808	2	If VTE Prophylaxis is 'None', then VTE Prophylaxis Time should be NA

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.

XSD Element Name: TransfusionBlood4Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids4Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 40000	

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).
- Must also complete the fields Transfusion Blood Measurement and Transfusion Blood Conversion

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11001	1	Invalid value
11002	2	Blank, required field
11003	2	Not Applicable, required field
11004	3	Invalid, out of range

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 cell transfusion (units or CCs) within first 24 hours after ED/hospital arrival.

XSD Element Name: TransfusionBlood24Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids24Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 60000	

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
- 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.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11401	1	Invalid value
11402	2	Blank, required field
11404	3	Invalid, out of range

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]).

XSD Element Name: TransfusionBloodMeasure	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsMeasure	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
12801	1	Invalid value
12802	3	Field cannot be blank when Transfusion Blood (4 Hours) or Transfusion Blood (24 Hours) is valued.

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.

XSD Element Name: TransfusionBloodConversion	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsConversion	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 1000	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
12901	1	Invalid value
12902	3	Invalid, out of range
12903	3	Field cannot be blank when Transfusion Blood Measurement is valued.

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.

XSD Element Name: TransfusionPlasma4Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids4Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 40000	

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.
- Must also complete the fields Transfusion Plasma Measurement and Transfusion Plasma Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11101	1	Invalid value
11102	2	Blank, required field
11104	3	Invalid, out of range

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.

XSD Element Name: TransfusionPlasma24Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids24Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 60000	

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.
- Must also complete the fields Transfusion Plasma Measurement and Transfusion Plasma Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11501	1	Invalid value
11502	2	Blank, required field
11504	3	Invalid, out of range

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]).

XSD Element Name: TransfusionPlasmaMeasure	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsMeasure	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13001	1	Invalid value
13002	3	Field cannot be blank when Transfusion Plasma (4 Hours) or Transfusion Plasma (24 Hours) is valued.

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.

XSD Element Name: TransfusionPlasmaConversion	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsConversion	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 1000	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13101	1	Invalid value
13102	3	Invalid, out of range
13103	3	Field cannot be blank when Transfusion Plasma Measurement is valued.

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.

XSD Element Name: TransfusionPlatelets4Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids4Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 40000	

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.
- Must also complete the fields Transfusion Platelets Measurement and Transfusion Platelets Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11201	1	Invalid value
11202	2	Blank, required field
11204	3	Invalid, out of range

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.

XSD Element Name: TransfusionPlatelets24Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids24Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 60000	

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.
- Must also complete the fields Transfusion Platelets Measurement and Transfusion Platelets Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11601	1	Invalid value
11602	2	Blank, required field
11604	3	Invalid, out of range

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]).

XSD Element Name: TransfusionPlateletsMeasure	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsMeasure	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13201	1	Invalid value
13202	3	Field cannot be blank when Transfusion Platelets (4 Hours) or Transfusion Platelets (24 Hours) is valued.

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.

XSD Element Name: TransfusionPlateletsConversion	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsConversion	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 1000	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13301	1	Invalid value
13302	3	Invalid, out of range
13303	3	Field cannot be blank when Transfusion Platelets Measurement is valued.

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.

XSD Element Name: Cryoprecipitate4Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids4Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 40000	

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.
- Must also complete the fields Cryoprecipitate Measurement and Cryoprecipitate Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
11301	1	Invalid value
11302	2	Blank, required field
11304	3	Invalid, out of range

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.

XSD Element Name: Cryoprecipitate24Hours	XSD Schema Datatype: xs:integer
XSD ComplexType: Fluids24Hours	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 60000	

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.
- Must also complete the fields Cryoprecipitate Measurement and Cryoprecipitate Conversion.

Data Source Hierarchy

1. ED flow sheet
2. Nursing unit sheet
3. Anesthesia records
4. Transfusion records

Associated Edit Checks

Rule ID	Level	Message
12701	1	Invalid value
12702	2	Blank, required field
12704	3	Invalid, out of range

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]).

XSD Element Name: CryoprecipitateMeasure	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsMeasure	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13401	1	Invalid value
13402	3	Field cannot be blank when Cryoprecipitate (4 Hours) or Cryoprecipitate (24 Hours) is valued.

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.

XSD Element Name: CryoprecipitateConversion	XSD Schema Datatype: xs:integer
XSD ComplexType: FluidsConversion	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 1000	

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.

Data Source Hierarchy

1. Blood Bank Records

Associated Edit Checks

Rule ID	Level	Message
13501	1	Invalid value
13502	3	Invalid, out of range
13503	3	Field cannot be blank when Transfusion Cryoprecipitate Measurement is valued.

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.

XSD Element Name: LowestSbp	XSD Schema Datatype: xs:integer
XSD ComplexType: Sbp	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 0 Maximum Value: 300	

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

1. Trauma Flow Sheet
2. Medical records

Associated Edit Checks

Rule ID	Level	Message
10901	1	Invalid value
10902	2	Blank, required field
10903	2	Invalid, out of range

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 48 hours of ED/Hospital arrival.

XSD Element Name: Angiography	XSD Schema Datatype: xs:integer
XSD ComplexType: Angiography	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

- Limit collection of angiography data to first 48 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

1. Procedure (radiology) notes
2. Trauma Flow Sheet
3. Nursing Unit Flow Sheet
4. Physician / Progress notes

Associated Edit Checks

Rule ID	Level	Message
11701	1	Invalid value
11702	2	Blank, required field

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.

XSD Element Name: EmbolizationSite	XSD Schema Datatype: xs:integer
XSD ComplexType: EmbolizationSite	Multiple Entry Configuration: Yes, max 8
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

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

Additional Information

- The null value "Not Applicable" is used if the data field ANGIOGRAPHY = "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

1. Procedure (radiology) notes
2. Nursing Unit / ICU Flow Sheet
3. Physician / Progress notes
4. Trauma Flow Sheet

Associated Edit Checks

Rule ID	Level	Message
11801	1	Invalid value
11802	2	Blank, required field
11803	2	If Angiography is 'Angiogram with embolization', then Embolization site cannot be NA
11804	2	If Angiography is 'None' or 'Angiogram only', then Embolization site should be NA

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.

XSD Element Name: AngiographyDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date20102030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 2010-01-01 Maximum Value: 2030-01-01	

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 = "1 None".
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Data Source Hierarchy

1. Radiology / Procedure notes
2. Nursing Unit / ICU flow sheets
3. Trauma Flow Sheet
4. Physician / Progress notes

Associated Edit Checks

Rule ID	Level	Message
11901	1	Invalid value
11902	1	Date out of range
11903	2	If Angiography is valued, then Angiography Date cannot be Blank
11904	2	If Angiography is 'Angiogram only' or 'Angiogram with embolization', then Angiography Date cannot be NA
11905	2	If Angiography is 'None', then Angiography Date should be NA

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.

XSD Element Name: AngiographyTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 = "1 None".
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Data Source Hierarchy

1. Radiology / Procedure notes
2. Nursing Unit / ICU Flow sheet
3. Trauma Flow Sheet
4. Physician / Progress notes

Associated Edit Checks

Rule ID	Level	Message
12001	1	Invalid value
12002	1	Time out of range
12003	2	If Angiography is valued, then Angiography Time cannot be Blank
12004	2	If Angiography is 'Angiogram only' or 'Angiogram with embolization', then Angiography Time cannot be NA
12005	2	If Angiography is 'None', then Angiography Time should be NA

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.

XSD Element Name: HemorrhageControlSurgeryType	XSD Schema Datatype: xs:integer
XSD ComplexType: HemorrhageControlSurgeryType	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

- | | |
|----------------|---|
| 1. None | 5. Extremity (peripheral vascular) |
| 2. Laparotomy | 6. Neck |
| 3. Thoracotomy | 7. Mangled extremity/traumatic amputation |
| 4. Sternotomy | |

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.

Data Source Hierarchy

1. OR records
2. Anesthesia records
3. Procedures notes
4. Physician / Progress notes
5. Nursing records

Associated Edit Checks

Rule ID	Level	Message
12101	1	Invalid value
12102	2	Blank, required field

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.

XSD Element Name: HemorrhageControlSurgeryDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date20102030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 2010-01-01 Maximum Value: 2030-01-01	

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 = "1 None".
- The null value "Not Applicable" is used for patients that do not meet the collection criteria.

Data Source Hierarchy

1. OR records
2. Anesthesia records
3. Procedures notes
4. Physician / Progress notes
5. Nursing records

Associated Edit Checks

Rule ID	Level	Message
12201	1	Invalid value
12202	1	Date out of range
12203	2	Surgery For Hemorrhage Control Date cannot be earlier than ED/Hospital Arrival Date
12204	2	Surgery For Hemorrhage Control Date cannot be later than Hospital Discharge Date
12205	2	If Hemorrhage Control Surgery Type is valued and not 'None', then Hemorrhage

Control Surgery Date cannot be NA

12206

2

If Hemorrhage Control Surgery Type is 'None', then Hemorrhage Control Surgery Date should be NA

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.

XSD Element Name: HemorrhageControlSurgeryTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 = "1 None".
- The null value "Not Applicable" is used for patients that do not meet the collection criteria.

Data Source Hierarchy

1. OR records
2. Anesthesia records
3. Procedures notes
4. Physician / Progress notes
5. Nursing records

Associated Edit Checks

Rule ID	Level	Message
12301	1	Invalid value
12302	1	Time out of range
12303	2	If Surgery For Hemorrhage Control Date and ED/Hospital Arrival Date are the same, the Surgery For Hemorrhage Control Time cannot be earlier than the ED/Hospital Arrival Time
12304	2	If Surgery For Hemorrhage Control Date and Hospital Discharge Date are the same, the Surgery For Hemorrhage Control Time cannot be later than the Hospital Discharge Time
12305	2	If Hemorrhage Control Surgery Type is valued and not 'None', then Hemorrhage Control Surgery Time cannot be NA

12306 2 If Hemorrhage Control Surgery Type is 'None', then Hemorrhage Control Surgery Time should be NA

WITHDRAWAL OF CARE

Collection Criterion: Collect on all patients

Definition

Care was withdrawn based on a decision to either remove or withhold further life sustaining 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.

XSD Element Name: WithdrawalOfCare	XSD Schema Datatype: xs:integer
XSD ComplexType: YesNo	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Constraint: Enumerated List	

Field Values

1. Yes
2. No

Additional Information

- DNR not a requirement.
- A note to limit escalation of care qualifies as a withdrawal of care. 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-saving intervention (e.g. intubation).
- Excludes the discontinuation of CPR and typically involves prior planning.
- DNR order is not the same as withdrawal of care.

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
12401	1	Invalid value
12402	2	Blank, required field
12403	2	Field cannot be Not Applicable

WITHDRAWAL OF CARE DATE

Collection Criterion: Collect on all patients

Definition

The date care was withdrawn.

XSD Element Name: WithdrawalOfCareDate	XSD Schema Datatype: xs:date
XSD ComplexType: Date20102030	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values
Minimum Value: 2010-01-01 Maximum Value: 2030-01-01	

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 Care is 'No'.
- Record the time the first of any existing life-sustaining 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-saving intervention(s) occurs (e.g. intubation).

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
12501	1	Invalid value
12502	1	Date out of range
12503	2	Withdrawal of Care Date cannot be earlier than ED/Hospital Arrival Date
12504	2	Withdrawal of Care Date cannot be later than Hospital Discharge Date
12505	2	If Withdrawal of Care is 'Yes', then Withdrawal of Care Date cannot be NA
12506	2	If Withdrawal of Care is 'No', then Withdrawal of Care Date should be NA

WITHDRAWAL OF CARE TIME

Collection Criterion: Collect on all patients

Definition

The time care was withdrawn.

XSD Element Name: WithdrawalOfCareTime	XSD Schema Datatype: xs:time
XSD ComplexType: Time	Multiple Entry Configuration: No
Required in XSD: Yes	Accepts Null Value: yes, common null values

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 Care is 'No'.
- Record the time the first of any existing life-sustaining 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-saving intervention(s) occurs (e.g. intubation).

Data Source Hierarchy

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

Associated Edit Checks

Rule ID	Level	Message
12601	1	Invalid value
12602	1	Time out of range
12603	2	If Withdrawal of Care Date and ED/Hospital Arrival Date are the same, the Withdrawal of Care Time cannot be earlier than the ED/Hospital Arrival Time
12604	2	If Withdrawal of Care Date and Hospital Discharge Date are the same, the Withdrawal of Care Time cannot be later than the Hospital Discharge Time
12605	2	If Withdrawal of Care is 'Yes', then Withdrawal of Care Time cannot be NA
12606	2	If Withdrawal of Care is 'No', then Withdrawal of Care Time should be NA