SECTION B: REQUIRED VARIABLES FOR DOWNLOAD TO THE STATE REGISTRY

Facility ID (INSTITUTE_NO)

Definition: A code for medical facilities. The codes assigned for each facility are maintained by the CDPHE for the Colorado Trauma Registry. The code entered for this variable represents the facility referred to as the “Trauma Center of Record“ throughout this document.

Values: For facilities in Colorado, codes are in the form Lnnmm, where "L" is a letter, "nn" is a county code, and "mm" is sequential within a county.

For out-of-state facilities, codes are in the form XLLnn, where "X" is an X, "LL" is the state postal code, and "nn" is sequential within a state.

Examples:

F1604	=	The Children's Hospital, Denver, CO
E3101	=	Weisbord Memorial Hospital, Eads, CO
C4902	=	Snowmass Clinic, Snowmass Village, CO
W4302	=	Olathe Medical Clinic, Olathe, CO
XNM02	=	San Juan Regional Medical Center, Farmington, NM
XUT01	=	Allen Memorial Hospital, Moab, UT

Notes: A list of facilities and codes is found in **Appendix I**.

DataType: Text **Format:** Length 6

Trauma Case Identification Number (TRACKING_NO)

Definition: A number that distinguishes this trauma case from all other trauma cases within a facility.

Values: Usually integers, but a returning case may have a number after the decimal point.

Examples: If a case is coded as 993, and the patient is readmitted for the same injury or for complications of the initial admission, the readmission should be coded as 993.1 rather than being assigned a new trauma case identification number. Add “.2”, “.3”, etc. for each subsequent readmission related to this injury event.

Data Type: Number **Format:** Double

Medical Record Number (MEDICAL_RECORD_NUMBER)

Definition: The hospital's identification code for the patient's medical record.

Values: The format and appropriate values vary for each hospital (see examples below).

This variable should not contain the values "NONE" or "B".

Examples: Denver Health Medical Center: "000022040927", "K46621"
St Anthony Hospitals: "001514281-0001"
Lutheran Medical Center: "M911241"
Swedish Medical Center: "AQO1617921"
Invalid: "000000B"

NA = Not applicable
UNK = Unknown or not documented

Notes: The medical record number should be unique to the patient and to the admission (if applicable). The medical record number should correspond to the number you would submit to medical records if you wanted to review the patient's medical records from this hospitalization or ED visit.

Data Type: Text **Format:** Length 20

Patient Billing Number (PATIENT_NUMBER)

Definition: The ID number or billing number for the admission. Also called "Financial Number".

Values: The format and appropriate values vary for each hospital.

Data Type: Text **Format:** Length 25

Patient's Last Name (NAME_LAST)

Definition: Patient's last name as it appears on the medical record.

Examples: Smith
Harrison-Klein

Notes: If the person has an alias, write “Last Name 1” AKA “Last Name 2” (for example, Smith AKA Brown)

Data Type: Text **Format:** Length 25

Patient's First Name (NAME_FIRST)

Definition: Patient's first name as it appears on the medical record.

Examples: John
Susan

Notes: If the person has an alias, write “First Name 1” AKA “First Name 2” (for example, John AKA Jake)

Data Type: Text **Format:** Length 20

Patient's Middle Name (NAME_MI)

Definition: Patient's middle name or middle initial as it appears on the medical record.

Examples: D
J

Notes: If the patient uses terms such as Jr., Sr, III, etc. with their name, enter that here. Do not include a period (“.”) after the initial. If the patient does not have a middle name or if the middle name is unknown, enter “UNK”. Do not enter “NOT”, “NA”, “NMI”, “NONE”, “ND”, etc.

Data Type: Text **Format:** Length 20

Patient's Street Address of Residence (ADDRESS)

Definition: Patient's street address, post office box number, rural route number, or the highway contract route number.

Values: Periods after abbreviations are not necessary in addresses.
Indicate whether it's N (North), E (East), S (South), or W (West).
Include Room (Rm), Suite (Ste), or Apartment (Apt) number.

Abbreviations:

Street	= St	Road	= Rd	Lane	= Ln
Avenue	= Ave	Circle	= Cir	Place	= Pl
Drive	= Dr	Court	= Ct	Way	= Way

Related Variables: Patient's City, County, Zip Code and State of Residence

Examples:
450 S Clinton St, Apt 4C
PO Box 786 [A street address, if available, is preferable to a PO Box]
6500 County Rd 128
10254 S Highway 83 [for a state highway, just say highway]
3116 N US Highway 287

References: US Postal Service Addressing Standards:
http://pe.usps.gov/cpim/ftp/pubs/Pub28/pub28.pdf
http://www.usps.com/ncsc/lookups/abbreviations.html

US Postal Service Zip code look-up:
http://zip4.usps.com/zip4/welcome.jsp

Data Type: Text **Format:** Length 75

Patient's City of Residence (RES_CITY)

Definition: Patient's city of residence.

Values: When the data is downloaded to CDPHE, the whole city name must be spelled out.
NA = Not applicable
UNK = Unknown

Related Variables: Patient's Address, Zip Code, County and State of Residence

Examples:

Colorado Springs	Grand Junction
Glenwood Springs	Fort Morgan

e.g. Invalid: "Grand Jct, CO"

Notes: When counting cases by city name, it is necessary to have consistency. In a data base, "Colo Spgs", "CS", "C Spgs" "Colo Springs", and "Colorado Spgs" are considered different city names. Please be consistent in how you enter city names at your facility.

Data Type: Text **Format:** Length 50

Patient's Zip Code of Residence (ZIP_CODE)

Definition: Zip Code of the patient's residence

Values: 5-digit zip code
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Patient's Address, City, County and State of Residence

Examples: Most places have just one 5-digit zip code: for example, the town of Ouray is 81427. Larger cities may have more than one zip code. Also, zip codes may overlap city/county boundaries, so the same zip code may apply to more than one city or county.

References: The US Postal Service address-lookup web page will give you the zip code for any valid address:

http://zip4.usps.com/zip4/welcome.jsp

Note: If the street address and city are available, use the USPS website above to obtain the appropriate zip code.

Data Type: Text **Format:** Length 10

Patient's State of Residence (RES_STATE)

Definition: Patient's state of residence.

Values: Two-letter US Postal abbreviation

AL = Alabama	KY = Kentucky	ND = North Dakota
AK = Alaska	LA = Louisiana	OH = Ohio
AZ = Arizona	ME = Maine	OK = Oklahoma
AR = Arkansas	MD = Maryland	OR = Oregon
CA = California	MA = Massachusetts	PA = Pennsylvania
CO = Colorado	MI -= Michigan	RI = Rhode Island
CT = Connecticut	MN = Minnesota	SC = South Carolina
DE = Delaware	MS = Mississippi	SD = South Dakota
DC = District of Columbia	MO = Missouri	TN = Tennessee
FL = Florida	MT = Montana	TX = Texas
GA = Georgia	NE = Nebraska	UT = Utah
HI = Hawaii	NV = Nevada	VT = Vermont
ID = Idaho	NH = New Hampshire	VA = Virginia
IL = Illinois	NJ = New Jersey	WA = Washington
IN = Indiana	NM = New Mexico	WV = West Virginia
IA = Iowa	NY = New York	WI = Wisconsin
KS = Kansas	NC = North Carolina	WY = Wyoming
		PR = Puerto Rico

NA = Not applicable (patient did not live in the U.S.)
UNK = Unknown or not documented

Related Variables: Patient's Zip Code, City and County of Residence

References: See: http://www.usps.com/ncsc/lookups/abbreviations.html

Data Type: Text **Format:** Length 5

Patient's County of Residence (RES_COUNTY_STATE)

Definition: A code for the Colorado county where the patient lives.

Values:

1 = Adams	23 = Garfield	45 = Otero
2 = Alamosa	24 = Gilpin	46 = Ouray
3 = Arapahoe	25 = Grand	47 = Park
4 = Archuleta	26 = Gunnison	48 = Phillips
5 = Baca	27 = Hinsdale	49 = Pitkin
6 = Bent	28 = Huerfano	50 = Prowers
7 = Boulder	29 = Jackson	51 = Pueblo
8 = Chaffee	30 = Jefferson	52 = Rio Blanco
9 = Cheyenne	31 = Kiowa	53 = Rio Grande
10 = Clear Creek	32 = Kit Carson	54 = Routt
11 = Conejos	33 = Lake	55 = Saguache
12 = Costilla	34 = La Plata	56 = San Juan
13 = Crowley	35 = Larimer	57 = San Miguel
14 = Custer	36 = Las Animas	58 = Sedgwick
15 = Delta	37 = Lincoln	59 = Summit
16 = Denver	38 = Logan	60 = Teller
17 = Dolores	39 = Mesa	61 = Washington
18 = Douglas	40 = Mineral	62 = Weld
19 = Eagle	41 = Moffat	63 = Yuma
20 = Elbert	42 = Montezuma	80 = Broomfield
21 = El Paso	43 = Montrose	90=Denver metro
22 = Fremont	44 = Morgan	98 = Out-of-State

NA = Not applicable (the patient is not a US resident)
UNK = Unknown or not documented

Related Variables: Patient's Zip Code, City and State of Residence

Note: Use “98” if the patient is a U.S. resident but not a Colorado resident.

If the patient is known to live in the metro Denver area, but the exact county is not known, use “90”.

If the patient is not a U.S. resident, use “NA”.

DataType: Text **Format:** Length 3

Patient's Home Country (COUNTRY)

Definition: A code for the country where the patient lives.

Values:

US	United States	EZ	Czech Republic	LT	Lesotho	TP	Sao Tome and Principe
MX	Mexico	DA	Denmark	LI	Liberia	SA	Saudi Arabia
CA	Canada	DJ	Djibouti	LY	Libya	SG	Senegal
AF	Afghanistan	DO	Dominica	LS	Liechtenstein	RB	Serbia
AL	Albania	DR	Dominican Republic	LH	Lithuania	SE	Seychelles
AG	Algeria			LU	Luxembourg	SL	Sierra Leone
AN	Andorra	TT	East Timor	MK	Macedonia	SN	Singapore
AO	Angola	EC	Ecuador	MA	Madagascar	LO	Slovakia
AC	Antigua and Barbuda	EG	Egypt	MI	Malawi	SI	Slovenia
		ES	El Salvador	MY	Malaysia	BP	Solomon Islands
AR	Argentina	EK	Equatorial Guinea	MV	Maldives	SO	Somalia
AM	Armenia	ER	Eritrea	ML	Mali	SF	South Africa
AS	Australia	EN	Estonia	MT	Malta	SP	Spain
AU	Austria	ET	Ethiopia	RM	Marshall Islands	CE	Sri Lanka
AJ	Azerbaijan	FJ	Fiji	MR	Mauritania	SU	Sudan
BF	Bahamas	FI	Finland	MP	Mauritius	NS	Suriname
BA	Bahrain	FR	France	FM	Micronesia	WZ	Swaziland
BG	Bangladesh	GB	Gabon	MD	Moldova	SW	Sweden
BB	Barbados	GA	Gambia	MN	Monaco	SZ	Switzerland
BO	Belarus	GG	Georgia	MG	Mongolia	SY	Syria
BE	Belgium	GM	Germany	MJ	Montenegro	TI	Tajikistan
BH	Belize	GH	Ghana	MO	Morocco	TW	Taiwan
BN	Benin	GR	Greece	MZ	Mozambique	TZ	Tanzania
BT	Bhutan	GJ	Grenada	WA	Namibia	TH	Thailand
BL	Bolivia	GT	Guatemala	NR	Nauru	TO	Togo
BK	Bosnia and Herzegovina	GV	Guinea	NP	Nepal	TN	Tonga
		PU	Guinea-Bissau	NL	Netherlands	TD	Trinidad and Tobago
BC	Botswana	GY	Guyana	NZ	New Zealand		
BR	Brazil	HA	Haiti	NU	Nicaragua	TS	Tunisia
BX	Brunei	VT	Holy See	NG	Niger	TU	Turkey
BU	Bulgaria	HO	Honduras	NI	Nigeria	TX	Turkmenistan
UV	Burkina Faso	HU	Hungary	NO	Norway	TV	Tuvalu
BM	Burma	IC	Iceland	MU	Oman	UG	Uganda
BY	Burundi	IN	India	PK	Pakistan	UP	Ukraine
CB	Cambodia	ID	Indonesia	PS	Palau	AE	United Arab Emirates
CM	Cameroon	IR	Iran	PM	Panama		
CV	Cape Verde	IZ	Iraq	PP	Papua New Guinea	UK	United Kingdom
CT	Central African Republic	EI	Ireland	PA	Paraguay		
		IS	Israel	PE	Peru	UY	Uruguay
CD	Chad	IT	Italy	RP	Philippines	UZ	Uzbekistan
CI	Chile	JM	Jamaica	PL	Poland	NH	Vanuatu
CH	China	JA	Japan	PO	Portugal	VE	Venezuela
CO	Colombia	JO	Jordan	QA	Qatar	VM	Vietnam
CN	Comoros	KZ	Kazakhstan	RO	Romania	YM	Yemen
CF	Congo (Brazzaville)	KE	Kenya	RS	Russia	ZA	Zambia
		KR	Kiribati	RW	Rwanda	ZI	Zimbabwe
CG	Congo (Kinshasa)	KN	Korea, North	SC	Saint Kitts and Nevis		
		KS	Korea, South			NA	Not applicable
CS	Costa Rica	KU	Kuwait	ST	Saint Lucia	UNK	Unknown
IV	Cote d'Ivoire	KG	Kyrgyzstan	VC	Saint Vincent & Grenadin		
HR	Croatia	LA	Laos				
CU	Cuba	LG	Latvia	WS	Samoa		
CY	Cyprus	LE	Lebanon	SM	San Marino		

Notes: Only complete when the patient's city, county, and zip code of residence are "Not applicable" ("'NA"').

DataType: Text **Format:** Length 3

Alternate Home Residence (HOME)

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

Values:

HOME	= Homeless
UND	= Undocumented citizen
MI	= Migrant worker
FV	= Foreign visitor
NA	= Not applicable
UNK	= Unknown or not documented

Notes: Only complete 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 country.

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

Data Type: Text **Format:** Length 4

Patient's Date of Birth (DOB)

Definition: Patient's date of birth.

Related Variables: Patient's Age

Examples: 06/01/1954
10/24/2000

Notes: The 4-digit year is required to compute the age of patients born in different centuries.

Data Type: Date **Format:** mm/dd/yyyy

Patient's Age (AGE)

Definition: The patient's age as a number (can be years, months, weeks, or days).

Related Variables: Age Units

Notes: Use this variable in combination with the variable "Age Units". Age is typically calculated by the software using date of birth and date of injury.

Data Type: Number **Format:** Length 3

Age Units (AGE_UNITS)

Definition: The units of the patient's age.

Values:

H	= Hours	D	= Days
M	= Months	Y	= Years
W	= Weeks		

Related Variables: Patient's Age (with Variable Units)

Notes: Use this variable in combination with the variable "Patient's Age". Age is typically calculated by the software using date of birth and date of injury.

Data Type: Text **Format:** Length 1

Patient's Gender (SEX)

Definition: Patient's gender.

Values:
M = Male
F = Female
NA = Not applicable
UNK = Unknown or not documented

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

Data Type: Text **Format:** Length 3

Patient's Race (RACE)

Definition: Patient's race.

Values:
1 = White
2 = Black or African American
3 = Asian
4 = American Indian
6 = Other Race
7 = Native Hawaiian or Other Pacific Islander
NA = Not applicable
UNK = Unknown or not documented

Notes: This variable might be difficult to determine. Possible sources include the patient's self-description or information from the medical record face sheet. It should be based on self-report or as identified by a family member, when possible.

Data Type: Text **Format:** Length 3

Patient's Second Race (RACE_OTHER)

Definition: Patient's secondary race.

Values:
1 = White
2 = Black or African American
3 = Asian
4 = American Indian
6 = Other Race
7 = Native Hawaiian or Other Pacific Islander
NA = Not applicable
UNK = Unknown or not documented

Notes: This variable might be difficult to determine. Possible sources include the patient's self-description or information from the medical record face sheet.

Data Type: Text **Format:** Length 3

Patient's Ethnicity (ETHNICITY)

Definition: Patient's ethnicity.

Values:
H = Hispanic or Latino
N = Not Hispanic or Latino
NA = Not applicable
UNK = Unknown or not documented

Notes: Patient ethnicity should be based upon self-report or identified by a family member.

Data Type: Text **Format:** Length 3

Date of Injury (INJURY_DATE)

Definition: Date the injury occurred.

Examples: 02/08/2006

Related Variables: Time of Injury, Injury Time Known

Notes: This date should be the same as or earlier than any of the other dates in the trauma care sequence. The injury date/time can be different from the EMS response date/time. For example, if the patient was injured in an event, then realized a few days later that he/she wasn't feeling well, the patient might then call EMS or go to the ED.

Injury date/time helps provide information about response time and how long it takes a patient to seek help.

Data Type: Date **Format:** mm/dd/yyyy

Time of Injury (INJURY_TIME)

Definition: Time the injury occurred.

Values: 00:01 (midnight) through 23:59

Related Variables: Date of Injury, Injury Time Known

Notes: The injury date and time provide an anchor at one end of the sequence of transport events.

Data Type: Time **Format:** hh:mm

Injury Time Known (INJURY_TIME_KNOWN)

Definition: Is the injury time reported “exact”, estimated or unknown?

Values:

EXACT	Time of injury is +/- 30 minutes.
EST	Time of injury is estimated.
UNK	Time of injury is unknown - there is no mention of the time in the medical record.

Related Variables: Date of Injury, Time of Injury

Notes: This field indicates how the injury time is known. Is it Exact, Estimated (by the registrar) or Unknown? Exact does not have to be to the minute. For example, if the medical record states that the event happened “around noon today”, “about a half hour before the patient came to ED”, etc., indicate ”Exact”. Just round off, and put noon, or 1/2 hour prior to arrival in ED, respectively. Use the label “Exact” if you have information within a 30-minute window of when the event happened. If however, a patient reports that he fell "sometime last night," that would be an estimated time of injury. You could arbitrarily use 8:00 pm and put ESTIMATED. If there is no mention in the medical record of when the injury occurred, enter UNK.

Data Type: Text **Format:** Length 5

Location of Injury (LOCALE)

Definition: The location where the injury incident occurred.

Values: If possible, give the actual street address. If the actual street address is not available, include as much detailed information as you can, such as the nearest street address, intersection, city, etc. Include information regarding location type, such as the NAME of a school, business, public park, public building, etc.

Related Variables: Injury Zip Code, County and State
Injury Location Type

Examples: "Home of patient's grandmother at 4638 W Hampden Ave, Englewood"
"Slope at Snowmass Ski Area"
"Sidewalk in front of Red Ram Lounge, 277 First Ave, Ft Collins"
"Intersection of Dartmouth Ave & Sheridan Blvd, Lakewood"
"13 miles into Weminuche Wilderness Area from trailhead near Bayfield"
"Miller Middle School Playground, Ft Lupton"

Notes: Enter the injury location as specifically as possible. Enough information should be provided to be able to determine the location type.

If the injury occurred at the patient's home, do NOT write "Patient's home." Please enter the address information again (street address and city in this field; zip code, county, and state in their respective fields).

If the injury occurred at someone else's home, enter the address information if available (including the appropriate zip, county and state in their respective fields).

If the injury occurred at a ski resort, enter the name of the ski resort.

For motor vehicle crashes, include the name of the street or highway and mile-markers or cross streets.

If the injury occurred in a nursing home, enter the name of the nursing home.

Data Type: Text **Format:** Length 255

Incident City (NEAREST_TOWN)

Definition: The city or town where the incident occurred or where the patient was found (or best approximation).

Values: Name of the city. See details in the description of Patient's City of Residence (page 8).
NA = Not applicable
UNK = Unknown or not documented

Notes: Used to determine the FIPS code. Only complete when Incident Location ZIP code is "Not applicable" or 'Unknown".

Data Type: Text **Format:** Length 50

Injury Location Zip Code (INJURY_ZIP)

Definition: Zip Code of the place where the injury incident occurred.

Values: 5-digit zip code.
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Locale; Injury County and State

References: The US Postal Service address-lookup web page will give you the zip code for any valid address: http://zip4.usps.com/zip4/welcome.jsp

Notes: Code the injury location as specifically as possible. Put the injury address and city in the "Locale" variable. Zip code can later be determined from the address. Start with the most specific information you have, then complete the less specific. Start with the injury address, then enter injury zip code, county and state. If the street address and city are available, use the USPS website above to obtain the appropriate zip code.

Data Type: Text **Format:** Length 10

Injury Location State (INJURY_STATE)

Definition: The state where the injury incident occurred.

Values: Two-letter US Postal abbreviation

AL = Alabama	KY = Kentucky	ND = North Dakota
AK = Alaska	LA = Louisiana	OH = Ohio
AZ = Arizona	ME = Maine	OK = Oklahoma
AR = Arkansas	MD = Maryland	OR = Oregon
CA = California	MA = Massachusetts	PA = Pennsylvania
CO = Colorado	MI -= Michigan	RI = Rhode Island
CT = Connecticut	MN = Minnesota	SC = South Carolina
DE = Delaware	MS = Mississippi	SD = South Dakota
DC = District of Columbia	MO = Missouri	TN = Tennessee
FL = Florida	MT = Montana	TX = Texas
GA = Georgia	NE = Nebraska	UT = Utah
HI = Hawaii	NV = Nevada	VT = Vermont
ID = Idaho	NH = New Hampshire	VA = Virginia
IL = Illinois	NJ = New Jersey	WA = Washington
IN = Indiana	NM = New Mexico	WV = West Virginia
IA = Iowa	NY = New York	WI = Wisconsin
KS = Kansas	NC = North Carolina	WY = Wyoming
		PR = Puerto Rico

NA = Not applicable (injury event did not occur in the U.S.)
UNK = Unknown or not documented

Related Variables: Locale; Injury Zip Code and County

References: See: http://www.usps.com/ncsc/lookups/abbreviations.html

Data Type: Text **Format:** Length 5

Injury Location County (COUNTY_STATE)

Definition: The Colorado county where the injury incident occurred.

Values:

1 = Adams	23 = Garfield	45 = Otero
2 = Alamosa	24 = Gilpin	46 = Ouray
3 = Arapahoe	25 = Grand	47 = Park
4 = Archuleta	26 = Gunnison	48 = Phillips
5 = Baca	27 = Hinsdale	49 = Pitkin
6 = Bent	28 = Huerfano	50 = Prowers
7 = Boulder	29 = Jackson	51 = Pueblo
8 = Chaffee	30 = Jefferson	52 = Rio Blanco
9 = Cheyenne	31 = Kiowa	53 = Rio Grande
10 = Clear Creek	32 = Kit Carson	54 = Routt
11 = Conejos	33 = Lake	55 = Saguache
12 = Costilla	34 = La Plata	56 = San Juan
13 = Crowley	35 = Larimer	57 = San Miguel
14 = Custer	36 = Las Animas	58 = Sedgwick
15 = Delta	37 = Lincoln	59 = Summit
16 = Denver	38 = Logan	60 = Teller
17 = Dolores	39 = Mesa	61 = Washington
18 = Douglas	40 = Mineral	62 = Weld
19 = Eagle	41 = Moffat	63 = Yuma
20 = Elbert	42 = Montezuma	80 = Broomfield
21 = El Paso	43 = Montrose	90=Denver Metro
22 = Fremont	44 =Morgan	98 = Out-of-state

UNK = Unknown or not documented

If the patient was transported to your facility by private vehicle, and you have reason to think the patient was injured in the metro Denver area but the exact county is not known, enter “90”.

Related Variables: Locale; Injury Zip Code and State

Notes: This variable only applies to injuries that occurred in Colorado. If you know the city in Colorado where the person was injured, but you don’t know the county, use the National Association of Counties website at http://www.naco.org/Pages/default.aspx to identify the appropriate county for a city. If the injury occurred outside of Colorado, enter “98”.

Data Type: Text **Format:** Length 3

Incident Country (INJURY_COUNTRY)

Definition: The country where the injury incident occurred.

Values:

		EZ	Czech Republic	LE	Lebanon	WS	Samoa
US	United States	DA	Denmark	LT	Lesotho	SM	San Marino
MX	Mexico	DJ	Djibouti	LI	Liberia	TP	Sao Tome and Principe
CA	Canada	DO	Dominica	LY	Libya	SA	Saudi Arabia
AF	Afghanistan	DR	Dominican Republic	LS	Liechtenstein	SG	Senegal
AL	Albania	TT	East Timor	LH	Lithuania	RB	Serbia
AG	Algeria	EC	Ecuador	LU	Luxembourg	SE	Seychelles
AN	Andorra	EG	Egypt	MK	Macedonia	SL	Sierra Leone
AO	Angola	ES	El Salvador	MA	Madagascar	SN	Singapore
AC	Antigua and Barbuda	EK	Equatorial Guinea	MI	Malawi	LO	Slovakia
AR	Argentina	ER	Eritrea	MY	Malaysia	SI	Slovenia
AM	Armenia	EN	Estonia	MV	Maldives	BP	Solomon Islands
AS	Australia	ET	Ethiopia	ML	Mali	SO	Somalia
AU	Austria	FJ	Fiji	MT	Malta	SF	South Africa
AJ	Azerbaijan	FI	Finland	RM	Marshall Islands	SP	Spain
BF	Bahamas	FR	France	MR	Mauritania	CE	Sri Lanka
BA	Bahrain	GB	Gabon	MP	Mauritius	SU	Sudan
BG	Bangladesh	GA	Gambia	FM	Micronesia	NS	Suriname
BB	Barbados	GG	Georgia	MD	Moldova	WZ	Swaziland
BO	Belarus	GM	Germany	MN	Monaco	SW	Sweden
BE	Belgium	GH	Ghana	MG	Mongolia	SZ	Switzerland
BH	Belize	GR	Greece	MJ	Montenegro	SY	Syria
BN	Benin	GJ	Grenada	MO	Morocco	TI	Tajikistan
BT	Bhutan	GT	Guatemala	MZ	Mozambique	TW	Taiwan
BL	Bolivia	GV	Guinea	WA	Namibia	TZ	Tanzania
BK	Bosnia and Herzegovina	PU	Guinea-Bissau	NR	Nauru	TH	Thailand
BC	Botswana	GY	Guyana	NP	Nepal	TO	Togo
BR	Brazil	HA	Haiti	NL	Netherlands	TN	Tonga
BX	Brunei	VT	Holy See	NZ	New Zealand	TD	Trinidad and Tobago
BU	Bulgaria	HO	Honduras	NU	Nicaragua	TS	Tunisia
UV	Burkina Faso	HU	Hungary	NG	Niger	TU	Turkey
BM	Burma	IC	Iceland	NI	Nigeria	TX	Turkmenistan
BY	Burundi	IN	India	NO	Norway	TV	Tuvalu
CB	Cambodia	ID	Indonesia	MU	Oman	UG	Uganda
CM	Cameroon	IR	Iran	PK	Pakistan	UP	Ukraine
CV	Cape Verde	IZ	Iraq	PS	Palau	AE	United Arab Emirates
CT	Central African Republic	EI	Ireland	PM	Panama	UK	United Kingdom
CD	Chad	IS	Israel	PP	Papua New Guinea	UY	Uruguay
CI	Chile	IT	Italy	PA	Paraguay	UZ	Uzbekistan
CH	China	JM	Jamaica	PE	Peru	NH	Vanuatu
CO	Colombia	JA	Japan	RP	Philippines	VE	Venezuela
CN	Comoros	JO	Jordan	PL	Poland	VM	Vietnam
CF	Congo (Brazzaville)	KZ	Kazakhstan	PO	Portugal	YM	Yemen
CG	Congo (Kinshasa)	KE	Kenya	QA	Qatar	ZA	Zambia
CS	Costa Rica	KR	Kiribati	RO	Romania	ZI	Zimbabwe
IV	Cote d'Ivoire	KN	Korea, North	RS	Russia		
HR	Croatia	KS	Korea, South	RW	Rwanda	NA	Not applicable
CU	Cuba	KU	Kuwait	SC	Saint Kitts and Nevis	UNK	Unknown
CY	Cyprus	KG	Kyrgyzstan	ST	Saint Lucia		
		LA	Laos	VC	Saint Vincent & Grenadin		
		LG	Latvia				

Notes: Only complete when the injury incident occurred outside the US.

DataType: Text **Format:** Length 3

Injury Location Type (LOCATION)

Definition: Type of location where the injury occurred. The information entered in this variable should reflect the type of location where the injury occurred, NOT what the person was doing at the time of injury.

Values:

HOME:
The interior and exterior of any private home or private residence. Includes house, farm house, apartment, condominium, boarding house, private driveway, private garage, private garden, private walkway, swimming pool within private house or garden, and yard of home. Excludes home under construction but not occupied, or an institutional place of residence.

FARM:
Includes farm buildings (barn, storage) and land under cultivation (orchard, field). Excludes farmhouse and home premises of the farm.

RES:
Residential institution. Includes dormitory, hospital, jail or prison, home for the elderly, orphanage, barracks, reform school, nursing home.

REC:
Place for recreation or sport. Includes school playground, gymnasium, athletic fields (baseball, football, soccer, etc), athletic courts (basketball, tennis, etc.), rinks (ice, roller, hockey), golf course, public park, holiday camp, race course, resorts of all types, riding school, rifle range, stadium, public swimming pool. Excludes athletic and recreational injuries that occur in a private house or yard.

STREET:
Includes all public roadways.

HIGH:
Includes highway, interstate, freeway.

PUBLIC:
Any building used by the general public, including the adjacent grounds, driveways, & parking lots. Includes airport, bank, restaurant, bar or nightclub, bus or railway station, business office, casino, clubhouse, courthouse, dance hall, gas station, hotel or motel, movie theater, music hall, office building, place of worship, post office, store, theaters, non-residential parking garage. Excludes home garage or industrial building or workplace. Also excludes public and private schools.

INDUS:
Industrial settings and work places. Includes construction site, motor vehicle/boat sales/repairs, industrial plant and yard, warehouse, laboratory/science lab, truck dockyard, garage (if a place of work), loading platform in factory or store, railway yard, repair shop.

MINE:
Mine and quarry.

EDUC:
Educational Facilities. Includes any public or private school, from pre-school through universities and adult education facilities.

Excludes playground, gym, athletic field, and other recreational locations within education institutions. These should be coded as place for recreation (REC).

OTHER:
Other specified location. Use this option only if none of the other options can be justified (for example, REC, for recreation area). This option may include forest, open land or field, vacant lot, graded/cared for plot of land, lake, river, railroad right of way, beach, desert, mountain, pond, prairie, reservoir, abandoned building.

NA = Not applicable
UNK = Unknown or not documented

Related Variables: Locale
E849 "Place of Occurrence" codes:

- HOME = E849.0
- FARM = E849.1
- RES = E849.7
- REC = E849.4
- STREET = E849.5
- HIGH = E849.5
- PUBLIC = E849.6
- INDUS = E849.3
- MINE = Included in E849.3
- EDUC = No E849 code
- OTHER = E849.8
- UNK = E849.9

References: ICD-9-CM coding manual

Notes: Injury location type should reflect the type of location where the injury occurred, NOT what the person was doing at the time of injury.
"Work" is not a valid option.
For more information on assigning Injury Location Type, see **Appendix III.**

Data Type: Text **Format:** Length 20

Work-Related (INDUST_ACC)

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

Values:
N = Not work related
Y = Work related
NA = Not applicable
UNK = Unknown or not documented

Notes: If the injury is work-related, two additional data fields must be completed: OCCUPATION and INDUSTRY_TYPE. This field allows one to characterize injuries associated with job environments.

Data Type: Text **Format:** Length 5

Patient's Occupation (OCCUPATION)

Definition: The patient's occupation.

Values:
ARC = Architecture/Engineering
BUS = Business and Financial Operations
COM = Community and Social Service
COMP = Computer/ Mathematics
CONS = Construction/Extraction
DISABLED= Disabled
ED = Education, Training, Library
ENT = Arts, Design, Entertainment, Sports, Media
FARM = Farming/Fishing/Forestry
FOOD = Food Preparation/Serving
HEALTH= Healthcare Practitioners/ Technical
HS = Healthcare Support
LEGAL= Legal Occupations
MAIN = Building and Grounds Cleaning/Maintenance
MAN = Management
MIL = Military
OFFICE= Office and Administrative support
PER = Personal Care and Service
PRO = Protective Service
PROD = Production
REP = Installation/Maintenance/ Repair
RETIRED= Retired
SALE = Sales and Related
SCI = Life/Physical/Social Science
STUDENT= Student
TRANS= Transportation and Material Moving

NA = Not applicable
UNK = Unknown or not documented

Notes: Only complete if the injury is work-related. If the injury is work-related, also complete INDUSTRY_TYPE. These codes are based upon 1999 US Bureau of Labor Statistics Standard Occupational Classification (SOC) (see http://www.bls.gov/soc/home.htm) and are used to better describe injuries associated with work environments.

Data Type: Text **Format:** Length 10

Patient's Occupational Industry (INDUSTRY_TYPE)

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

Values:

AG	= Agriculture, Forestry, Fishing
CONS	= Construction
EDU	= Education and Health Services
FINANCE	= Finance, Insurance and Real Estate
GOV	= Government
INF	= Information Services
LEISURE	= Leisure and Hospitality
MAN	= Manufacturing
NR	= Natural Resources and Mining
PROF	= Professional and Business Services
RETAIL	= Retail Trade
TRANS	= Transportation and Public Utilities
WHOLE	= Wholesale Trade
OTHER	= Other Services
NA	= Not applicable
UNK	= Unknown or not documented

Notes: Only complete if the injury is work-related. If the injury is work-related, also complete OCCUPATION. These codes are based upon US Bureau of Labor Statistics Industry Classification (http://www.bls.gov/soc/home.htm) and are used to better describe injuries associated with work environments.

Data Type: Text **Format:** Length 7

Injury Description & Circumstances (INJURY_DETAILS)

Definition: A description of the injury circumstances.

Values: Free text

Related Variables: E-Codes
Cause of Injury Code

Notes: Provide as complete a description of the circumstances as possible. This information is used to support the external cause of injury coding (E-codes). There should be enough information so that anyone reading your account of how the injury occurred could come up with the same E-code as you do. You don't need to repeat information provided elsewhere (such as diagnoses or the exact location where the injury occurred). If the injury occurred as a result of a motor vehicle crash, include whether the patient was a driver or passenger. Other helpful information to include in this field can be age, gender, use of protective devices, when the injury occurred if different from the date the patient came to your hospital, and whether the patient was referred from another hospital. Mention intentionality (intentional vs. accidental injury) if known, particularly with stab wounds and gunshot wounds. Include all of the events that happened in the order in which they occurred.

Examples: "Pt was walking along I-76, was hit by motor vehicle. Pt was thrown over guardrail and down 15-20 ft embankment onto RD 26."

"Pt was competing in a rodeo, was thrown from a bull onto right side, then was kicked by the bull."

"Skiing, went over a jump, landed then ran into a tree. Unknown whether a helmet was being used at the time of injury."

"80 y/o female presented to another hospital today C/O of a severe headache. She fell last night when she tripped over her dog. Hit her head at that time, but felt OK initially. Transferred here for neurosurgery consult."

Bad Examples:

"MVA"

"Ski"

Data Type: Text **Format:** Any Length

ICD-9 External Cause Code (CAUSE_E_CODES)

Definition: An "external cause of injury code" from the ICD-9-CM coding system.

Values: Values are 3-digit numbers. There may also be a decimal point and up to two digits after the decimal point.

Valid E-codes are in the E800 to E995 range.

Related Variables:
Cause of Injury Code
Injury Description & Circumstances
E849 codes are closely related to Injury Location Type

References: ICD-9-CM coding manual. "Supplementary Classification of External Causes of Injury and Poisoning (E800-E999)"

"Recommended Framework for Presenting Injury Mortality Data". MMWR Vol 46, No. RR-14, Aug 29, 1997.

Notes: The primary E-code should describe the main reason a patient is admitted to the hospital.

Always include at least two E-Codes: one for the cause and one for the location (E849). In some instances, you might need to enter three E-Codes: two describing how the injury occurred and one for the location. Do not enter the location E-code (E849.x) as the first E-code.

Use the ICD-9-CM coding rules appropriately. For more information about assigning E-codes, see **Appendix VII**.

In the National Trauma Data Bank (NTDB), E-codes are used to auto-generate two calculated fields: Trauma Type (Blunt, Penetrating, Burn) and Intentionality (based upon the CDC injury matrix). See page 30-32 of the 2011 National Trauma Data Standards dictionary at http://www.ntdsdictionary.org/ .

Data Type: Text **Format:** Length 7

Cause of Injury Code (CAUSE_CODE)

Definition: A code for the cause of injury.

Values: Use this variable for cases where specific E-codes are not available. Some examples include:

SKI	= Snow skiing (do not include water skiing in this category)
SPORT	= Any sport-related injury (except SKI and SNOWB)
SNOWB	= Snowboarding (if you don't know if ski or snowboard, use SKI)
SUI	= Suicide (completed or attempted)
ATV	= All-terrain vehicle

Related Variables: E-Codes
Injury Description & Circumstances

Notes: In analyzing data at the state level, more reliance will be placed on identifying the mechanism of injury using E-codes. This variable helps to identify specific types of injuries for which E-coding is not specific enough.

In past discussions with registrars on standard definitions for these codes, it became obvious that different facilities use these codes in different ways. A decision was made to NOT standardize the definitions for the codes, and for hospitals to continue to use these codes as they always have. Analysis of data at the state level will rely on E-codes and the injury description rather than the "Cause of Injury" code.

Data Type: Text **Format:** Length 5

Trauma Type (TRAUMA_TYPE)

Definition: Trauma type, based on the injury most likely to influence the probability of survival.

Values:
B = Blunt trauma
P = Penetrating trauma
T = Thermal (e.g., burns, frostbite)
NA = Not applicable (e.g., for readmissions)
UNK = Unknown or not documented

Related Variables:
ICD9 codes
Diagnosis description
E-Codes
AIS Severity Level
Triage Codes

Notes: The primary reason for assigning trauma type is for calculation of the probability of survival. For more discussion on assigning trauma type, see **Appendix VIII**.

In brief:
Penetrating trauma is defined as: any wound or injury caused by a sharp implement resulting in penetration of the skin and either entrance into a cavity, or for the extremities, into deeper structures such as tendons, nerves, vascular structures or deep muscle beds. Penetrating trauma requires more than one layer of suturing for closure.

Thermal trauma is defined as: any trauma resulting from thermal injury, such as thermal burns, frostbite, scald, and chemical burns.

Blunt trauma is defined as any other type of injury, including hangings, drownings, lightning strikes, and snake bites.

Data Type: Text **Format:** Length 5

Protective Devices (PROTECTIVE_DEVICES)

Definition: Protective device(s) used by the patient at the time the injury occurred.

Values:

NONE	= No protective device used
3PT	= Both lap and shoulder belt (maps to "Shoulder" in NTDS)
AIR	= Airbag present (see page 33 for details regarding deployment)
BELT	= Patient was restrained, but no further details are available
CHILD	= Child restraint (booster seat, child car seat)
CLOTH	= Protective clothing (e.g. padded leather pants)
EYE	= Eye protection
FLOAT	= Personal Flotation Device
GEAR	= Protective non-clothing gear (e.g., knee pads, shin/wrist guards)
HEL	= Helmet (e.g., bicycle, skiing, motorcycle)
LAP	= Lap belt only
SHOUL	= Shoulder belt only
OTHER	= Other protection
NA	= Not applicable
UNK	= Unknown or not documented

Related Variables: Injury Description & Circumstances

Notes: Sometimes EMS reports will state that the patient "was restrained," but not mention the type of restraint used. In this instance, "BELT" would be the appropriate state code.

With regard to choosing between "NONE", "NA", and "UNK."

- Choose "NONE" when personal protective equipment is known to be available for the activity in which the patient was injured, and the medical record specifically mentions that the patient DID NOT have a helmet on, or WAS NOT restrained, or WAS NOT wearing protective eyewear, etc. Some activities where one would expect the use of personal protective equipment include:

  - Riding in a motor vehicle – Airbags, lap/shoulder belts, child restraints
  - Riding on a Motorcyle – Helmet, protective clothing
  - Bicycling – Helmet
  - Skateboarding – Helmet
  - Rollerblading – Helmet, knee pads, wrist pads
  - Roofing – Fall protection
  - Skiing/Telemark Skiing – Helmet
  - Snowboarding – Helmet
  - Construction – Hard Hat (Helmet)
  - Boating – Flotation Device
  - Football - Helmet, Protective Clothing, Mouth protection (other)
  - Hockey – Helmet, Protective Clothing, Eye protection, Mouth protection (other)
  - Chemist - Eye Protection
  - Welders – Face Shield, Protective Clothing (gloves), hard hat (helmet)
  - Rock Climbing – Helmet

- Choose "UNK" when personal protective equipment is known to be available for the activity in which the patient was injured, and the chart does not mention whether protective equipment was used or not.

- Choose "NA" (not applicable) when someone is injured in an activity that does not normally require protective devices, such as walking down the street or around their own home.

- If you don't know whether protective equipment is available or not for a specific activity, and there is nothing mentioned in the medical record about the use of equipment, select "UNK."

Data Type: Text **Format:** Length 6

Airbag Deployment (AIRBAG)

Definition: Indication of an airbag deployment during a motor vehicle crash

Values:

N	= Airbag not deployed
F	= Airbag deployed, Front
S	= Airbag deployed, Side
O	= Airbag deployed, Other (knee, airbelt, curtain, etc.)
NA	= Not applicable
UNK	= Unknown or not documented

Notes: Used to better define injury cause and characterize injury patterns. Evidence of the use of airbag deployment may be reported or observed. This variable is only completed when Protective Devices include “AIR”. Check all that apply.

If airbag deployment is documented, but the specific type of airbag (front, side or other) is not mentioned, enter “F” (Airbag deployed, Front).

Data Type: Text **Format:** Length 3

Child Specific Restraint (CHILD_RESTRAINT)

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

Values:

CHILD	= Child car seat
INFANT	= Infant car seat
BOOSTER	= Child Booster seat
NA	= Not applicable
UNK	= Unknown or not documented

Notes: Evidence of the use of child restraint may be reported or observed. This variable is only completed when Protective Devices include “CHILD”.

Data Type: Text **Format:** Length 6

Alcohol Evident (EV)

Definition: Is there any indication that the patient had been using alcohol at the time of the injury?

Values:
- Y = Yes. There are comments in the medical record, prehospital trip sheet or by verbal report that suggest the patient used alcohol at the time of the injury
- YL = Yes, confirmed by test to be greater than the legal limit (the legal limit in Colorado is 0.05 grams of ETOH per 100 ml of blood)
- YT = Yes, confirmed by test to be trace amounts or less than the legal limit but not zero
- N = No. No evidence in the medical record, prehospital trip sheet or by verbal report that the patient used alcohol at the time of the injury (Not suspected)
- NT = No (Confirmed by test)

- NA = Not applicable
- UNK = Unknown or not documented

Related Variables: Blood Alcohol Content; Breathalyzer Results

Data Type: Text **Format:** Length 3

Breathalyzer Results (ETOHBR)

Definition: Blood alcohol content estimated by measuring the alcohol content of the breath. This is done using a "Breathalyzer" or similar device.

Values: 0 to 1000, for cases where a Breathalyzer test was performed

- NA = Not Applicable
- UNK = Unknown or not documented

Do not enter decimal points in this field.

Related Variables: Alcohol Evident, Blood Alcohol Content

Notes: See notes under "Blood Alcohol Content"

Data Type: Number **Format:** Length 5

Blood Alcohol Content (ETOH)

Definition: Blood Alcohol Content as measured in a blood test.

Values: 0 to 1000, for cases where BAC was measured.

NA = Not applicable
UNK = Unknown or not documented

Do not enter decimal points in this field.

Related Variables: Alcohol Evident; Breathalyzer Results

Examples: 80 = 0.08 grams of ETOH per 100 ml blood. It is illegal to operate a motor vehicle in Colorado at this level or above.

50 = 0.05 grams of ETOH per 100 ml blood. Drivers with a BAC between this level and 0.08 are "Driving while Alcohol-Impaired".

References: The National Highway Traffic Safety Administration (NHTSA) does research on alcohol and safety, especially with regard to driving. An index of their journal articles is available at: http://www.nhtsa.dot.gov/ (click on the tab that says “Driving Safety”).

Information is also provided on training physicians to detect and counsel their patients who drink heavily (see http://www.nhtsa.dot.gov/people/injury/alcohol/impaired_driving/content.html).

Notes: Alcohol concentration is defined in terms of the weight of ethanol (ethyl alcohol) in a volume of blood or breath. In the United States the typical measure is grams of ethanol in 100 milliliters of blood or in 210 liters of breath and is reported as, for example, 0.10 percent or just "point 1-0". In Colorado, 0.05 is the legal limit for "Driving while Alcohol-Impaired" (DWAI), and 0.08 is the limit for "Driving Under the Influence" (DUI). In our database, this figure is multiplied by 1000, so that 0.10 becomes 100.

Data Type: Number **Format:** Length 5

Tox Screen Values (TOX)

Definition: Positive results from a toxicology screen.

Values:

AMPHET	= Amphetamines
CANN	= Cannabis, THC
COC	= Cocaine
OPIATES	= Opiates
OTHER	= Other
MULT	= Positive for more than one drug
NEG	= Results were negative
NOTDONE	= Tox screen not done
NA	= Not applicable
NOT	= Not documented
UNK	= Unknown

This variable will NO LONGER BE INCLUDED in the Colorado Trauma Registry beginning in 2011.

Notes: "Positive" is not a valid response. If the screen is positive, indicate one of the categories listed above.

This variable is used for two main purposes: 1) to identify patient factors that might have influenced the occurrence of the event (and therefore, might be reasonable to address for prevention purposes) and 2) to identify drugs that might influence the vital signs (and their interpretation). For this variable, only indicate whether or not the tox screen is positive. You do not need to identify the timing of when the drug was introduced (i.e., if the drug was "on board" before or after the injury event occurred).

Data Type: Text **Format:** Length 15

Drug Use Indicator (TOX_TEST)

Definition: Use of drugs by the patient.

Values:

N	= No (not suspected, not tested)
NC	= No (confirmed by test)
YP	= Yes (confirmed by test [prescription drug])
YD	= Yes (confirmed by test [illegal use drug])
NA	= Not applicable
UNK	= Unknown or not documented

Notes: This variable refers to drug use by the patient and does not include medical treatment.

"Illegal use drug" also includes illegal use of prescription drugs.

Data Type: Text **Format:** Length 3

Patient's Outcome (OUTCOME)

Definition: Patient's outcome.

Values:
A = Discharged alive
D = Died (DOA, in the ED, or as an inpatient)
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Disposition from the ED (ER_Disp)
Inpatient Disposition (InPtDisp)

Examples: If Outcome = "D", then either ER_Disp = "D" or InPtDisp = "D" (but not both). If the patient is discharged alive from the acute care facility, the value here should be "A", even if the patient later dies in a step-down, SNF, or rehab unit attached to the hospital.

Data Type: Text **Format:** Length 3

Transfer-In Status (HOSPITAL_TRANSFER)

Definition: Was this patient transferred to your facility from another acute care facility?

Values:
Y =Yes
N =No
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Transfer Mode, Referring Hospital; Time/Date of Arrival at the Referring Facility; Time/Date of Discharge from the Referring Facility; Referring Facility Admission Type; Trauma Surgeon Consultation; Time/Date of Consultation with the Trauma Surgeon

Notes: Facilities that provide emergency care services or are used to stabilize a patient are considered acute care facilities.

In accordance with the National Trauma Data Standard, a patient who is transferred from a private doctor's office or stand-alone ambulatory surgery center is not considered to be an interfacility transfer.

In Colorado, patients who come from urgent care clinics are not considered to be interfacility transfers.

Unlike the NTDS, which defines interfacility transfers as only including patients transported by EMS, in Colorado, interfacility transfers can involve transport either by EMS or by private vehicle.

Prior to 2008, this variable was imputed based on whether there were values for any of the related variables listed above.

Data Type: Text **Format:** Length 3

Trauma Center Arrival Date (HOSPITAL_ARRIVAL_DATE)

Definition: The date the patient arrived at the ED or receiving unit of the Trauma Center of Record. Every patient should have a value for this field.

Related Variables: Trauma Center Arrival Time

Examples: 07/15/2006

Notes: Allows computation of time intervals.
Used to compute hospital or ER length of stay.

Data Type: Date **Format:** mm/dd/yyyy

Trauma Center Arrival Time (HOSPITAL_ARRIVAL_TIME)

Definition: The time of arrival in the ED or receiving unit of the Trauma Center of Record. Every patient should have a value for this field.

Values: 00:01 (midnight) through 23:59

Related Variables: Trauma Center Arrival Date

Notes: Allows computation of time intervals.
Used to compute hospital or ER length of stay.

Data Type: Time **Format:** hh:mm

Trauma Team Activation (TEAM_NOTIFIED)

Definition: The type of Trauma Team activation that occurred at the Trauma Center of Record.

Values:
F = Full team activation
P = Partial team activation
N = No team activation

NA = Not applicable (use for direct admits)
UNK = Unknown or not documented

Related Variables: Triage Codes
E-Codes

Notes: This variable should reflect what actually happened, not whether or not the action was justified.

If no activation was called, enter “N”, whether or not an activation should have been called.

Choices for “Full” and “Partial” team activation are provided for those facilities that have tiered activation criteria. Use “Full” or “Partial” as applicable to the definitions used at your facility.

Use “NA” for direct admits.

Data Type: Text **Format:** Length 5

ED Disposition (ED_DISPOSITION_CODE)

Definition: Where did the patient go after leaving the ED?

Values:

For analysis purposes, patients with the following ED disposition values are considered to be an INPATIENT

ADMIT	= Patient was admitted, but the exact location/service is unknown
DIRECT	= Patient did not come through the ED; patient was admitted directly to the hospital
FLOOR	= Patient was sent to a floor (general admission, non-specialty unit bed)
ICU	= Patient went to the Intensive Care Unit
OBS	= Patient was admitted for observation (a unit that provides <24 hour stays)
OR	= Patient was taken to the operating room
TELE	= Telemetry/step-down unit (less acuity than ICU)

For analysis purposes, patients with the following ED disposition values are NOT considered to be an INPATIENT:

AMA	= Patient left the ED against medical advice
D	= Patient died in the ED (prior to admission to the hospital)
DSS	= Patient was discharged to the Department of Social Services
HH	= Home with services
HOME	= Home without services
JAIL	= Patient was discharged from the ED to jail
TRANS	= Patient was transferred directly from the ED to another facility
OTHER	= Discharged to other location (e.g., institutional care, mental health)
NA	= Not applicable
UNK	= Unknown or not documented

Related Variables:
Outcome
Arrival at Trauma Center Date & Time
Hospital Admit Date & Time
Discharge Date & Time

Examples: If Outcome = "D" and the death occurred before the patient was admitted as an inpatient, then ED disposition must be "D" (died in the ED) and Inpatient Disposition Code (DC_DISPOSITION_CODE) must be “NA”.

If Inpatient Disposition = "D", then ED disposition must not be "D".

The values "OR", "ICU", “TELE”, "FLOOR", "DIRECT", “OBS” and “ADMIT” are all considered admissions to the hospital, and the record should have a valid Inpatient Disposition Code (DC_DISPOSITION_CODE) and Hospital Admit Date & Time.

If the ED disposition is "D", "TRANS", "AMA", “HOME”, “HH”, “JAIL”, “DSS”, “OTHER”, “NA”, or “UNK”, the patient was not admitted as an inpatient, so the Inpatient Disposition Code (DC_DISPOSITION_CODE) should be "NA".

If the Inpatient Disposition Code indicates that the patient was discharged after admission, ED disposition must be "OR", "ICU", “TELE”, "FLOOR", "DIRECT", “OBS” or “ADMIT”.

Notes: This variable is very important in tracking the patient's progress through the system. It should be consistent with the Inpatient Disposition Code and the Outcome.

For more information on assigning ED disposition, see **Appendix IV**.

This field will also be used to answer the NTDS field for ED_OUTCOME.

Data Type: Text **Format:** Length 10

Signs of Life (ARRIVAL_CONDITION)

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

Values:
N = Arrived with NO signs of life
Y = Arrived with signs of life

NA = Not applicable (patient did not die in the ED)
UNK = Unknown or not documented

Related Variables:
ED disposition
Outcome

Notes: The default value for this field should be "NA". This field is only relevant for patients who died in the ED. For patients who died in the ED, an indication about "signs of life" on arrival to the ED (N, Y or UNK) should be provided.

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 that the patient was brought to the ED with CPR in progress.

Data Type: Text **Format:** Length 3

ED Length of Stay (ER_TIME)

Definition: The time in minutes from arrival to the ED to discharge from the ED

Values: This value is calculated by Traumabase

NA = Not applicable (patient was a direct admit)
UNK = Unknown or not documented

Related Variables: ED arrival date/time, ED discharge date/time

Data Type: Text **Format:** Length 3

Hospital Admission Date (HOSPITAL_ADMISSION_DATE)

Definition: Date when the patient was admitted to the hospital as an inpatient. Any person who was admitted to the hospital as an inpatient MUST have a value in this field.

Values: Dates prior to 1/1/1997 are invalid.
If the patient was not admitted to the hospital, this field should be left blank.

Related Variables: Hospital Admission Time, ER Disposition, Inpatient Disposition

Examples: 04/05/2007

Notes: This variable allows computation of time intervals including Length of Hospital Stay.

Data Type: Date **Format:** mm/dd/yyyy

Hospital Admission Time (HOSPITAL_ADMISSION_TIME)

Definition: Time when the patient was admitted to the hospital.

Values: 00:01 (midnight) through 23:59
If the patient was not admitted to the hospital, this field should be left blank.

Related Variables: Hospital Admission Date, ER Disposition, Inpatient Disposition

Notes: This variable allows computation of time intervals including Length of Hospital Stay.

Data Type: Time **Format:** hh:mm

Hospital Departure Date (DISCHARGE_DATE)

Definition: Date when the patient was discharged from the hospital or the ED. If the patient was not admitted to the hospital, then this is the date of discharge from the ED. If the patient died in the ED, then this is the date of death.

Values: Dates prior to 1/1/1997 are invalid.

Related Variables: Hospital Discharge Time

Examples: 10/21/2005

Notes: Allows computation of time intervals.
Used to compute hospital or ER length of stay.

Data Type: Date **Format:** mm/dd/yyyy

Hospital Departure Time (DISCHARGE_TIME)

Definition: Time when the patient was discharged from the hospital or the ED. If the patient was not admitted to the hospital, then this is the time of discharge from the ED. If the patient died in the ED, then this is the time of death.

Values: 00:01 (midnight) through 23:59

Related Variables: Hospital Discharge Date, Hospital Admission Date & Time

Notes: Allows computation of time intervals.
Used to compute hospital or ER length of stay.

Data Type: Time **Format:** hh:mm

Admitting Service (ADM_SVC)

Definition: Primary hospital service responsible for the patient's care after admission.

Values:

TRAUMA	= Trauma Service
ORTHO	= Orthopedics
BURN	= Burn Unit
NEURO	= Neurosurgery
OBGYN	=Obstetrics/Gynecology
OMFS	= Oral-maxillo; dental; ENT
OPHTH	= Ophthalmology
PEDS	= Pediatrics
PLAST	= Plastic surgery
UROL	= Urology
OTHER	= Other surgical service (e.g., hand surgery)
NON	= Non-surgical services, such as internal medicine
NA	= Not applicable (the patient wasn't admitted)
UNK	= Unknown or not documented

Data Type: Text **Format:** Length 10

ICU Days (TOTAL_DAYS_ICU_)

Definition: Number of 24-hour periods the patient spent in the ICU.

Values: This value is calculated by TraumaBase. If the patient was not in the ICU, this variable will remain blank. This variable is recorded in full day increments with any partial day listed as a full day. If a patient is admitted and discharged on the same date, the LOS is one day.

Data Type: Number **Format:** Length 3

Total Ventilator Days (VENTDAYS)

Definition: The total number of patient days spent on a mechanical ventilator (including all episodes, but excluding time in the OR)

Values: The number of days

Notes: Recorded in full day increments with any partial day listed as a full day. If a patient begins and ends mechanical ventilation on the same date, the total ventilator days is one day. Non-invasive means of ventilatory support (CPAP or BIPAP) should not be considered in the calculation of ventilator days.

Data Type: Number **Format:** Length 3

Hospital Discharge Disposition (DC_DISPOSITION_CODE)

Definition: Where did the patient go after being discharged from the hospital? (Applies only to patients who were admitted to the hospital; does not apply to ED-only patients)

Values:

ACUTE = Discharged/transferred to another acute care hospital
AMA = Patient left the hospital against medical advice
D = Patient died after admission to the hospital (NOT in the ED)
DSS = Discharged to the Department of Social Services
HH = Discharged to home under care of a Home Health Agency (any outside agency that provides services after discharge, such as visiting nurse services)
HOME = Discharged to home/any residence with no home health services
HOSPICE = Discharged/transferred to hospice care
ICF = Discharged/transferred to an Intermediate Care Facility
JAIL = Discharged to a jail, prison, or other detention facility
LTAC = Discharged/transferred to a Long-term acute care
NHOME = Patient was discharged to a nursing home or other long- term residential care facility
PSYCH = Discharged to inpatient psychiatric care. This may be another facility or a division of the same facility.
REHAB = Discharged/transferred to rehabilitation facility
SNF = Discharged/transferred to a Skilled Nursing Facility
OTHER = Other
NA = Not applicable (patient was never admitted as an inpatient; patient was an ED-only patient)
UNK = Unknown or not documented

Related Variables:

Outcome
Emergency Department Disposition
Arrival at Trauma Center Date & Time, Admit Date & Time, Discharge Date & Time

Examples:

If Outcome = "D" and the patient died after admission to the hospital, this value should be "D".
If the ED_Disposition indicates that the patient was not admitted, this value should be "NA".
If a patient resided in a nursing home and returned to the nursing home after admission, the hospital discharge disposition should be NHOME, not HOME.
If the patient came from a SNF and returned to the SNF after admission, the hospital discharge disposition should be SNF, not HOME.
If the patient is discharged to a SNF for rehab, the hospital discharge disposition should be SNF, not REHAB. Code the location type, not what happens there.

Notes: This variable is very important in tracking the patient's progress through the system. It should be consistent with the ED_Disposition.

Data Type: Text **Format:** Length 10

Patient's Destination Facility (DC_DESTINATION_CODE)

Definition: For patients who were transferred (from the ED or after inpatient status), this variable is the Facility ID code for the acute care facility the patient was transferred to.

Values: A list of facilities and codes is found in **Appendix I**.

NA = Not applicable (patient wasn't transferred from the ED or after inpatient status)
UNK = Unknown or not documented

Notes: Required only if the patient was transferred to another acute care facility.

DataType: Number **Format:** Length 6

Autopsy (AUTOPSY)

Definition: Was an autopsy done?

Values:
YY = Yes, and the results are reflected in the diagnoses
YN = Yes, but the results are not reflected in the diagnoses
N = No
NA = Not applicable (the patient didn't die)
UNK = Unknown or not documented

Related Variables: ICD-9 Codes
Description of Diagnosis

Data Type: Text **Format:** Length 5

ICD-9-CM Code (ICD9)

Definition: A diagnosis code from the ICD-9-CM coding system

Values: Values are 3 to 5 digit codes. There may be a decimal point and up to two digits after the decimal point. Valid codes for trauma are in the 800-999 range, as per the Inclusion/Exclusion criteria (see Section A).

NA = Not applicable
UNK = Unknown or not documented

Related Variables: Diagnosis Description
AIS Severity Level
AIS Body Region of Injury

Examples: 920 = Contusion of face, neck, or scalp, except eyes
850.1 = Concussion; with brief loss of consciousness
820.21 = Fracture of neck of femur; closed pertrochanteric; intertrochanteric section

References: International Classification of Diseases, 9th Revision, Clinical Modification (ICD9-CM)

Notes: Cases should have at least one trauma-related ICD-9 code (as listed in the Inclusion/Exclusion criteria). The only exceptions are for: (1) patients who had your facility's highest level of trauma team activation, but were subsequently found to have no injuries or (2) readmissions, for which the reason for the readmission was a complication or failure of conservative management.

If you include diagnoses that were made at a facility other than your facility, please indicate "where" the diagnosis was made using the "Diagnosis_Location" variable described on page 52. Diagnoses made at another facility should only be included IF there is radiologic or operative confirmation of injuries and appropriate documentation from the other facility is available. Based on the diagnosis and the "diagnosis location" information, two ISS values will be calculated by the Traumabase software: 1) an ISS based solely on the diagnoses made at your facility and 2) an ISS based on all diagnoses known (made at your facility or any other facility).

For more information on assigning ICD-9 codes, see **Appendix V**.

For the National Trauma Data Standard, these codes are used to auto-generate 8 calculated fields: AIS (6 body regions) and ISS.

Data Type: Text **Format:** Length 6

Source of Diagnostic Information (DX_KNOWN)

Definition: Where did the information regarding this diagnosis come from?

Values:
A = Autopsy
CT = CT Scan
E = Physical Examination
H = History
MRI = MRI
S = Surgery
US = Ultrasound
X = Xray

NA = Not applicable
UNK = Unknown or not documented

Related Variables: ICD-9 Codes
Description of Diagnosis

Data Type: Text **Format:** Length 5

Location where Diagnosis was Determined (DIAGNOSIS_LOCATION)

Definition: Where was this diagnosis made?

Values:
HERE = Your facility
OTHER = Other facility

Related Variables: ICD-9 Codes
Description of Diagnosis

Data Type: Text **Format:** Length 5

AIS Code (AIS_CODE)

Definition: An injury description code from the Abbreviated Injury Scale coding system.

Values: Values are 6 digits, a decimal point and a severity value.
NA = Not applicable
UNK = Unknown or not documented

Related Variables:
Diagnosis Description
AIS Severity Level
AIS Body Region of Injury
ICD9

References: The Abbreviated Injury Scale,1990 Revision, Update 1998. The Association for the Advancement of Automotive Medicine. 2340 Des Plaines River Road, Suite 106. Des Plaines, IL 60018.

The Abbreviated Injury Scale, 2005 Revision, Update 2008. The Association for the Advancement of Automotive Medicine.

Notes: TraumaBase will download up to 15 diagnosis codes to the state registry.

Data Type: Text **Format:** Length 8

Diagnosis Description (DIAGNOSES)

Definition: A written description of the diagnosis that supports the assigned ICD-9 code and/or AIS code.

Values: Written description
NA = Not applicable
UNK = Unknown or not documented

Related Variables:
ICD9 codes
AIS Severity Level
AIS Body Region of Injury

Examples: Fx, Acetabulum, Closed RIGHT
FX R RIBS 2-9 CLOSED

Notes: If you use the default diagnosis provided by TraumaBase, please provide additional information to justify the assignment of a particular ICD-9 code or AIS score.

Data Type: Memo **Format:** Any Length

AIS Score (AIS)

Definition: Severity level from the Abbreviated Injury Scale.

Values:
1 through 6 = Increasing severity
9 = Severity undetermined
NA = Not applicable
UNK = Unknown or not documented

Related Variables:
AIS Body Region of Injury
ICD9 Codes

References: The Abbreviated Injury Scale, 2005 Revision, Update 2008. The Association for the Advancement of Automotive Medicine, 2340 Des Plaines River Road, Suite 106. Des Plaines, IL 60018.

Notes: An AIS score of 6 is used only for very specific injuries. The use of AIS 6 is not implied simply because the patient died. Only the following injuries are assigned an AIS of 6:

- Massive destruction (crush injury) of both cranium (skull) and brain
- Laceration of the brainstem
- Massive destruction (crush injury) of the brainstem
- Penetrating injury to the brainstem
- Decapitation
- Crush injury of the chest resulting in bilateral obliteration by external forces of a substantial portion of the chest cavity including internal organs
- Major laceration of the thoracic aorta with hemorrhage not confined to the mediastinum
- Laceration to the heart resulting in complex or ventricular rupture
- Multiple lacerations to the heart
- Hepatic avulsion (total separation of all vascular attachments of the liver)
- Injury to the spinal cord (contusion or laceration) resulting in complete cord syndrome (quadriplegia or paraplegia with no sensation) at C-3 or above, with or without fracture or dislocation of the spine
- Second or third degree burn to >90% total body surface area (incineration)
- High voltage electrical injury with cardiac arrest

For more information on assigning AIS, see **Appendix VI**.

Data Type: Text **Format:** Length 3

Body Region of Injury (REGION)

Definition: The AIS anatomical region of injury.

Values:

ABD	= Abdomen or pelvic contents
ARM	= Arm
CHEST	= Chest
CS	= Cervical Spine
EXT	= External, burns or other trauma
FACE	= Face
HEAD	= Head
LEG	= Leg
LS	= Lumbar Spine
NECK	= Neck
TS	= Thoracic Spine
NA	= Not applicable
UNK	= Unknown or not documented

Related Variables: AIS, ISS
ICD9 codes

Examples: Pelvic fractures (fractures to the acetabulum, ilium, ischium, coccyx, sacrum or pubic ramus) should be coded to Lower Extremity (LEG).

Pelvic contents (injuries to anus, bladder, ovary, perineum, penis, scrotum, testes, urethra, uterus, vagina, vulva) should be coded to ABD.

Injuries to the diaphragm should be coded to CHEST.

Retroperitoneal injuries or hematoma should be coded to ABD.

Inhalation injuries should be coded to EXT.

Electrical injuries should be coded to EXT.

Hypothermia should be coded to EXT.

References: The Abbreviated Injury Scale, 2005 Revision, Update 2008. The Association for the Advancement of Automotive Medicine, 2340 Des Plaines River Road, Suite 106. Des Plaines, IL 60018.

Notes: The 11 AIS body regions can be converted to the 6 ISS body regions:

1. Head/Neck: Includes AIS regions of HEAD, NECK and CS
2. Face: Includes AIS region of FACE
3. Chest: Includes AIS region of CHEST (Thorax) and TS
4. Abdomen or Pelvic contents: Includes AIS regions of ABD and LS
5. Extremities or Pelvic girdle: Includes AIS regions of Upper Extremity (ARM) and Lower Extremity (LEG)
6. External: Includes External, Burns or Other Trauma

Data Type: Text **Format:** Length 10

AIS Version (SEVERITY_METHOD)

Definition: Version of the Abbreviated Injury Scale used for AIS assignment.

Values:
05 = AIS 2005
NA = Not applicable
UNK = Unknown or not documented

Related Variables:
AIS Code (full code)
AIS Severity value
Body Region

References: The Abbreviated Injury Scale, 2005 Revision, Update 2008. The Association for the Advancement of Automotive Medicine, 2340 Des Plaines River Road, Suite 106. Des Plaines, IL 60018.

Notes: For more information on assigning AIS, see **Appendix VI**.

Data Type: Number **Format:** Length 3

Injury Severity Score (ISS)

Definition: Injury Severity Score.

Values:
Range: 1 to 75.
99 = Not applicable, not calculable

Related Variables:
AIS Severity Level
AIS Body Region of Injury

References: The Abbreviated Injury Scale, 2005 Revision, 2008 Update. The Association for the Advancement of Automotive Medicine, 2340 Des Plaines River Road, Suite 106. Des Plaines, IL 60018.

Notes: For users of TraumaBase software, this value is calculated by the software.

Data Type: Number **Format:** Length 2

Co-morbid Conditions (RISK_TYPE)

Definition: Disease processes or conditions that existed in the patient PRIOR TO INJURY that could affect patient survivability and functional outcome

Values:

ABUSE	= Current abuse of prescription or illicit drugs (CO) **NEW**
ANGINA	= History of angina within past 1 month (NTDS)
ANOM	= Congenital anomalies (NTDS)
ASCITES	= Ascites within 30 days (NTDS)
ASTHMA	= Asthma (CO)
CA	= Disseminated cancer (NTDS)
CARDIAC	= Any history of cardiac disease (e.g., hx of MI more than 6 months ago, cardiac arrhythmias,a-fib, hx of CABG or stent placement, pacemaker) (CO) **NEW**
CHEMO	= Chemotherapy for cancer within 30 days (NTDS)
CHF	= Congestive heart failure (NTDS)
CIRRH	= Cirrhosis (NTDS) **NEW**
COAG	= Bleeding disorder (NTDS) or on anticoagulants (CO)
CVA	= CVA/residual neurological deficit (NTDS)
DEP	= Functionally dependent health status (NTDS)
DIAL	= Currently requiring or on dialysis (NTDS)
DM	= Diabetes mellitus controlled by oral meds (Modified NTDS)
DNR	= Do not resuscitate (DNR) status (NTDS)
ETOH	= Alcohol abuse or alcoholism (NTDS)
HTN	= Hypertension requiring medication (NTDS)
IDDM	= Insulin dependent diabetes mellitus (CO)
IMMUNE	= Immunocompromised excluding steroid use (modified CO)
LIVER	= Liver disease without ascites (modified CO)
MI	= History of myocardial infarction within past 6 months (NTDS)
NEURO	= Neurologic disorder (Parkinson's, seizures, multiple sclerosis, etc.) (CO)
OBESE	= Obesity based on BMI $\geq$ 40 (NTDS)
PAIN	= Chronic pain (CO)
PREG	= Pregnancy (CO)
PREM	= Prematurity (NTDS)
RAP	= History of revascularization or amputation for PVD (NTDS)
RENAL	= Renal disease/insufficiency not requiring dialysis (modified CO)
RESP	= Respiratory disease (e.g., severe chronic lung disease, such as COPD, emphysema, chronic bronchitis or COPD, cystic fibrosis) (NTDS)
SCI	= Pre-existing spinal cord injury (CO)
SENS	= Impaired sensorium (NTDS), including dementia, Alzheimer's, chronic mental illness, mental retardation, attention disorders
SMOKER	= Current smoker (i.e., smoked cigarettes in the year prior to admission) (NTDS)
STEROID	= Steroid use (NTDS), oral or parenteral, in the 30 days prior to injury for a chronic medical condition. Does not include steroids received topically or by inhalation
SURG	= History of any type of surgery in the past 3 weeks (CO) **NEW**

VAR = Esophageal varices (NTDS)
OTHER = Other (a co-morbidity not mentioned above)

NA = Not applicable (use for patients with no known co-morbid conditions)
UNK = Unknown or not documented

Examples:

CHF = Congestive Heart Failure
Includes congestive heart failure, left heart failure and pulmonary edema associated with heart disease. This category DOES NOT INCLUDE patients who develop heart failure or pulmonary edema after injury.

COPD = Chronic Obstructive Pulmonary Disease
Includes chronic bronchitis, emphysema, asthma, bronchiectasis, extrinsic allergic alveolitis, and other disorders resulting in chronic airway obstruction.

COAG = Coagulation defects resulting from a congenital bleeding disorder (hemophilia), liver disease or anti-coagulant medications. Includes any pre-existing condition resulting in a prolonged PT, PTT or bleeding time (twice the normal value as the individual facility's lab standard). This includes congenital coagulation defects/deficiencies (hemophilia A, hemophilia B, factor VIII, IX, XI or other clotting factor disorders, von Willebrand's disease, and hemorrhagic disorders due to circulating anticoagulants), acquired coagulation factor deficiency due to liver disease or vitamin K deficiency, and purpura or other hemorrhagic conditions (allergic purpura, platelet defects or primary thrombocytopenia). Also included are acquired coagulopathies resulting from liver disease or medications (coumadin, Plavix or other anticoagulants, etc.) This category DOES NOT INCLUDE patients who are on chronic aspiring therapy or who develop coagulation defects (such as DIC) after injury.

RENAL = Renal failure
Includes patients with existing renal disease (creatinine>2.5). Includes chronic renal failure and renal sclerosis. This category DOES NOT INCLUDE patients who develop renal failure after injury.

LIVER = Liver disease
Includes chronic liver disease and cirrhosis, alcoholic fatty liver, acute alcoholic hepatitis, alcoholic cirrhosis, alcoholic liver damage, chronic hepatitis, biliary cirrhosis, other chronic nonalcoholic liver disease or cirrhosis. This category DOES NOT INCLUDE patients who develop liver failure after injury.

PREG = Pregnancy

IDDM = Insulin-dependent Diabetes Mellitus
Includes Type 1 diabetes with or without long-term complications. This category DOES NOT INCLUDE patients who become insulin-dependent after injury.

ETOH = Alcohol abuse
Includes chronic alcohol abuse or alcohol dependence.

IMMUNE = Immunocompromised
Includes HIV/AIDS, on steroids or other medications that effect immune status, transplant recipient.

References: "The Effect of Preexisting Conditions on Mortality in Trauma Patients", JA Morris et al. JAMA 263: 1942-1946. 1990.

Notes: The presence of co-morbidities is used for risk-adjustment in outcome analysis.

Definitions for some of these co-morbidities can be found in the 2011 National Trauma Data Standard data dictionary in Appendix 4: Glossary of Terms (see pages 133-140 at http://www.ntdsdictionary.org/dataElements/documents/NTDS2011_Final3.pdf).

Corresponding ICD9-CM codes for some of these co-morbidities include:

CHF	(428.0, 428.1, 428.9)	
COPD and allied conditions	(491-496)	
COAG	(congenital)	(286, 287, excluding 286.6 and 287.4)
	(acquired)	(286.6, V58.61)
RENAL	(585, 587)	
LIVER	(571)	
PREG	(V22, V23)	
IDDM	(250)	
ETOH	(303.9)	

Data Type: Text **Format:** Length 10

Triage Codes (TRIAGE_CODES)

Definition: The triage criteria USED BY THE PREHOSPITAL CARE PROVIDER to decide where (which facility) the patient should be taken.

Values:

NONE = No triage criteria met

AMPUT = Amputation or near amputation above the wrist or ankle. Amputations of the finger do not meet these criteria.

BLAST = High energy dissipation from explosion, high pressure, etc.

BLUNT = Significant blunt trauma. Defined as blunt trauma with physiologic compromise as evidenced by Systolic BP <90 or Pulse >120 or respiratory rate <10 or >29 or requiring endotracheal intubation. For children under age 15, physiologic compromise is evidenced by BP < lower limits for age or tachycardia for age and signs of poor perfusion (capillary refill time >2 seconds, cool extremities, decreased pulses, altered mental status, poor color or respiratory compromise).

BURNS = ≥ 20% total body surface area burn or burns involving the face, airway, hands, feet or genitalia

CHEST = Flail chest. This code is NOT for all chest injuries, only for flail chest. If this triage code is selected, one of the diagnoses should be flail chest (807.4).

CRASH = High energy transfer situations such as an MVA with significant vehicle body damage (e.g., bent steering wheel, structural damage) or any motorcycle, ATV or bicycle crash. Also includes a skier hitting a tree.

DEATH = Death of an occupant in the same car

EXTRIC = Prolonged extrication time (>20 minutes)

FALL = A fall from a height ≥ 20 feet or for pediatric patients from a level more than or equal to twice the height of the child. Falls from the same level, from furniture, from a horse/bike etc. do not meet these criteria.

ELEC = High energy electrical injury

EXTREM=Crushed, degloved or mangled extremity

FX = Fracture of a long bone, in conjunction with an injury to another region. Long bones include femur, tibia/fib, and humerus. An isolated long bone fracture does not meet these criteria. This triage code should only be used when there is a long bone fx in addition to at least one other area of injury (CHEST, HEAD, ABDOMEN, etc). The AIS of the injuries to the other areas should be 2 or greater.

FX2=Two or more proximal long bone fractures (humerus and/or femur)

GCS10 = Altered mental status (GCS<10) with significant trauma

GCS10N = Altered mental status (GCS<10) with focal neurologic deficit

MULT = Multisystem blunt injury. Injuries were sustained in 2 or more of the 6 AIS body regions. The injuries must have a severity of AIS = 2 or greater. If this triage code is selected, the Trauma Type should be “BLUNT”.

PED = Pedestrian hit by vehicle traveling >20 mph or thrown >15 feet

PELVFX = Pelvic fracture, in conjunction with an injury to another region. An isolated pelvic fracture does not meet these criteria. This triage code should only be used when there is a pelvic fx in addition to at least one other area of injury (CHEST, HEAD, ABDOMEN, etc). The AIS of the injuries to the other areas should be 2 or greater.

PEN = Penetrating trauma to the thorax, abdomen or neck. If this triage code is selected, the Trauma Type should be “PENETRATING”.

PEN2=Penetrating trauma to the head or extremities above the knee or elbow. If this triage code is selected, the Trauma Type should be “PENETRATING”.

SKULL =Open or depressed skull fracture

SPINE = Spinal cord injury with neurologic deficit

Notes: This variable should only be completed when the patient is transported by EMS to the hospital. If the patient arrived by private vehicle or walked in, this variable should not be completed.

Although these triage codes should reflect the intent of the prehospital care provider, this information is more likely to be noted upon arrival to the ED (information found on the ED encounter form rather than the prehospital trip sheet).

Data Type: Text **Format:** Length 20

Serial Assessment (VS_NUMBER)

Definition: Codes for the time and place of the serial assessment (Vital Signs and Glasgow Coma Scale scores)

Values:
1 = First set of VS/GCS at the injury scene
2 = On arrival to your facility (either ED or direct admit)
3 = One hour after ED arrival or at discharge from the ED

Notes: Serial assessments include measures of Respiratory Rate, Pulse, Systolic Blood Pressure, O2 saturation, temperature, and the Glasgow Eye, Motor, and Verbal Scores.

The three assessment times listed above are standard. If you have vital sign information collected at other times/places (for example, at another hospital prior to transfer to your facility), you can collect that information and assign a value for "Serial Assessment" that is NOT "1", "2", or "3". Only the values for assessments "1", "2", and "3" will be downloaded to the state registry.

For assessment "3", the vital signs and GCS should be taken as close as possible to one hour after ED arrival, or if the person is discharged from the ED in less than one hour after arrival, then at the time of discharge from the ED.

Data Type: Text **Format:** Length 2

Date of the Assessment (VS_DATE)

Definition: The date of the current assessment

Data Type: Date **Format:** mm/dd/yyyy

Time of the Assessment (VS_TIME)

Definition: The military time of the current assessment

Values: 00:01 (midnight) through 23:59

Examples:
00:01 = Midnight
12:00 = Noon
13:00 = 1:00 pm

Data Type: Time **Format:** hh:mm

Respiratory Rate at Assessment (RESP_RATE)

Definition: Respiratory rate

Values:
Min = 0
Max = 120
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Initial ED/Hospital Respiratory Assistance (ASSISTING)

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

Values:
N = Unassisted respiratory rate
Y = Assisted respiratory rate
NA = Not applicable
UNK = Unknown or not documented

Notes: Only complete if a value is provided for "Initial ED/Hospital Respiratory Rate." Respiratory assistance is defined as mechanical and/or external support of respiration.

Data Type: Text **Format:** Length 5

Pulse Rate at Assessment (PULSE)

Definition: Pulse rate (palpated or auscultated)

Values:
Min = 0
Max = 299
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Systolic Blood Pressure at Assessment (SYS_BP)

Definition: Systolic Blood Pressure

Values:
Min = 0
Max = 300
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Oxygen Saturation at Assessment (OXIMETRY)

Definition: Oxygen saturation (expressed as a percentage)

Values:
Min = 0
Max = 100
NA = Not applicable
UNK = Unknown or not documented

Notes: For Serial 1 (field vitals), this value should be based upon assessment before administration of supplemental oxygen.

Data Type: Text **Format:** Length 3

Supplemental Oxygen (VS_O2)

Definition: Determination of the presence of supplemental oxygen during assessment of the oxygen saturation level

Values:
N = No supplemental oxygen
Y = Supplemental oxygen
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Temperature at Assessment (TEMPS)

Definition: Temperature in degrees Celsius (centigrade)

Values:
Min = 0
Max = 45
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Glasgow Eye Score at Assessment (EYE_OPENING)

Definition: The eye-opening component of the Glasgow Coma Scale

Values:
1 = Does not open eyes
2 = Opens eyes in response to painful stimulation
3 = Opens eyes in response to verbal stimulation
4 = Opens eyes spontaneously
NA = Not applicable
UNK = Unknown or not documented

References: See references listed under Glasgow Coma Scale Score.

Notes: If a patient had more than one Glasgow Eye Score recorded at this assessment, enter the first value for which all GCS components and vital signs are recorded.

Data Type: Text **Format:** Length 3

Glasgow Motor Score at Assessment (MOTOR_RESPONSE)

Definition: The motor component of the Glasgow Coma Scale

Values: For patients >5 years old:

1 = None (no motor response)
2 = Extensor posturing in response to painful stimulation
3 = Flexor posturing in response to painful stimulation
4 = General withdrawal in response to painful stimulation
5 = Localization of painful stimulation
6 = Obeys commands with appropriate motor response
9 = Not assessed
NA = Not applicable
UNK = Unknown or not documented

For patients age 5 years or younger:

1 = None (no motor response)
2 = Extensor posturing in response to painful stimulation
3 = Flexor posturing in response to painful stimulation
4 = General withdrawal in response to painful stimulation
5 = Localization of painful stimulation
6 = Spontaneous
9 = Not assessed
NA = Not applicable
UNK = Unknown or not documented

References: See references listed under Glasgow Coma Scale Score.

Notes: If the patient had more than one Glasgow Motor Score recorded at this assessment, enter the first value for which all GCS components and vital signs are recorded.

Data Type: Text **Format:** Length 3

Glasgow Verbal Score at Assessment (VERBAL_RESPONSE)

Definition: The verbal component of the Glasgow Coma Scale

Values: For patients>5 years old:

1 = None
2 = Non-specific, incomprehensible sounds
3 = Inappropriate words
4 = Confused conversation or speech
5 = Oriented and appropriate speech
9 = Not assessed
NA = Not applicable
UNK = Unknown or not documented

For patients 2-5 years old:

1 = None
2 = Grunts
3 = Cries and/or screams
4 = Inappropriate words
5 = Appropriate words
9 = Not assessed
NA = Not applicable
UNK = Unknown or not documented

For patients 0-23 months:

1 = None. No vocal response
2 = Inconsolable, agitated
3 = Inconsistently consolable, moaning
4 = Cries but is consolable, inappropriate interactions
5 = Smiles, oriented to sounds, follows objects, interacts
9 = Not assessed
NA = Not applicable
UNK = Unknown or documented

References: See references listed under Glasgow Coma Scale Score.

Notes: If the patient had more than one Glasgow Verbal Score recorded at this assessment, enter the first value for which all components of the GCS and vital signs are recorded.

Data Type: Text **Format:** Length 3

Glasgow Coma Scale Score at Assessment (GLASGOW)

Definition: The first Glasgow Coma Scale score recorded at this assessment (sum of eye, verbal and motor components)

Values:

Range	= 3 to 15
99	= Can't be determined
NA	= Not Applicable
UNK	= Unknown or not documented

Related Variables: Glasgow Eye Score, Glasgow Verbal Score, Glasgow Motor Score

References: "Aspects of coma after severe head injury". B Jennett, G Teasdale. Lancet 1 (Apr 23): 878-81. 1977.

"Problems with initial Glasgow Coma Scale assessment caused by prehospital treatment of patients with head injuries: results of a national survey." DW Marion, PM Carlier. J. Trauma 36: 89-95. 1994.

"Reliability of the Glasgow Coma Scale when used by emergency physicians and paramedics." JJ Menegazzi et al. J. Trauma 34: 46-48. 1993.

"Reliability and accuracy of the Glasgow Coma Scale with experienced and inexperienced users." G Rowley, K Fielding. Lancet 337: 535-538. 1991.

Notes: If the patient had more than one Glasgow Coma Score recorded, enter the first value for which all the GCS components and vital signs are recorded.

If the patient does not have a numeric GCS recorded, but there is documentation related to their level of consciousness such as "AAOx3", "awake, alert, oriented", or "patient with normal mental status", interpret this as GCS of 15, IF there is no contradicting documentation.

GCS<9 = Severe injury
9-11 = Moderately severe injury
12-14= Minor injury

Data Type: Text **Format:** Length 3

Patient Intubated at the time of GCS Assessment (INTUBATED)

Definition: Was the patient intubated at the time the GCS was measured?

Values:
Y = Yes
N = No
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Glasgow Eye Score; Glasgow Verbal Score; Glasgow Motor Score; Glasgow Coma Score

Data Type: Text **Format:** Length 3

Paralytics Administered at the Time of Assessment (PARALYTICS)

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

Values:
S = Patient chemically sedated
SI = Patient chemically sedated and intubated
SO = Patient chemically sedated and obstruction to eye
SIO = Patient chemically sedated, intubated, and obstruction to eye
I = Patient intubated
IO = Patient intubated and obstruction to eye
O = Obstruction to the patient's eye
NA = Not applicable (patient was not sedated, not intubated, and did not have an obstruction to the eye)
UNK = Unknown or not documented

Notes: Identifies treatments given to the patient that might affect the assessment of the GCS. This field does not apply to self-medications the patient might administer (e.g., ETOH, prescription meds).

Data Type: Text **Format:** Length 5

Trip Number (TRANSPORT_SEQ)

Definition: Numeric counter for a particular transport in the series of transports beginning at the scene of the injury and finishing at a designated trauma center

Values: Whole numbers from 1 to the number of separate transports.

Examples: The trip number should reflect the chronologic sequence of the trip(s).

For example, if the patient was transported from the scene to your hospital, there would only be one “trip” and trip number would = 1.

If the patient was taken from the scene to another hospital, then transferred from that hospital to your hospital, there would be two “trips”. The transport from the scene to the first hospital would be trip number 1and the transport from the first hospital to your hospital would be trip number 2.

If a patient was taken from the scene by ground EMS to a rendezvous point, then flown by helicopter to your facility, there would be two “trips”. The transport from the scene to the rendezvous point would be trip number 1 and the transport from the rendezvous point to your facility would be trip number 2.

Data Type: Number **Format:** Length 2

Transport Origin (TRANSPORT_ORIGIN)

Definition: The origin of this leg of the transport

Values:

HOME	= Home
SCENE	= Injury Scene
FACILITY or [FacID]	= Patient came from another facility. If the facility is on the Facility Code List in **Appendix I**, enter the Facility ID. If not, enter "FACILITY".
RENDEZVOUS	= A rendezvous site
OTHER	= Other

Notes: If the person was injured elsewhere, returned home, then called for EMS, select “HOME”. If the person was injured at home and EMS picked up the patient at home, select “SCENE”.

Data Type: Text **Format:** Length 10

Transport Destination (TRANSPORT_DESTINATION)

Definition: The destination of this leg of the transport

Values:

FACILITY or [FacID]	= If the facility is on the Facility Code List in **Appendix I**, enter the Facility ID. If not, enter "FACILITY".
RENDEZVOUS	= A rendezvous site
OTHER	= Other
NA	= Not applicable
UNK	= Unknown

Notes:

Data Type: Text **Format:** Length 10

Transport Mode (TRANS)

Definition: Mode of transport for this leg of transport to the Trauma Center of Record.

Values:

AMB	= Ground ambulance
HELI	= Helicopter ambulance
POV	= Private or public vehicle/Walk-in
POL	= Police vehicle
WING	= Fixed wing ambulance
SP	= Ski Patrol
OTHER	= A transport mode other than the ones listed above
NA	= Not applicable
UNK	= Unknown or not documented

Related Variables: If the patient was transported by ground ambulance, helicopter, or fixed wing aircraft, prehospital response time variables, triage codes and field vital signs should also be completed.

Data Type: Text **Format:** Length 5

Other Transport Mode (TRANS_OTHER)

Definition: All other modes of transport used during patient care event, except the mode delivering the patient to the hospital.

Values:

AMB	= Ambulance
HELI	= Helicopter ambulance
POV	= Private or public vehicle/Walk-in
POL	= Police vehicle
WING	= Fixed wing ambulance
OTHER	= A transport mode other than those listed above
NA	= Not applicable
UNK	= Unknown or not documented

Notes: Allows data to be evaluated based on mode of transport utilized to reach the hospital.

Data Type: Text **Format:** Length 5

Transport Agency (TRANSPORT_AGENCY_CODE)

Definition: Alphanumeric code for the prehospital agency or provider transporting the patient on this leg of the transport

Values: A list of codes for prehospital care providers is found in **Appendix II.**

Examples: 02-01 = Alamosa County Ambulance Service
16-02 = Denver Health Paramedic Division

Notes: Transport Agency codes are in the form nn-nn, where the first pair of numbers denote the county where the agency is registered and the second pair of numbers after the dash is a counter of agencies within the county.

Data Type: Text **Format:** Length 5

Transport Record Number (TRANSPORT_RECORD_NO)

Definition: Identification number for this transport from the EMS trip report.

Values: Alphanumeric record identification number
NA = Not applicable
UNK = Unknown or not documented

Notes: The Transport Record Number will be used to link this transport to the prehospital database.

Data Type: Text **Format:** Length 15

Patient Tracking Number (EMS_TRACKING_NO)

Definition: A tracking number assigned to the patient by EMS, so that the patient can be tracked through all aspects of care.

Values: Alphanumeric record identification number
NA = Not applicable
UNK = Unknown or not documented

Notes: Some RETACs have expressed interest in using a “band” system with a unique tracking number that would enable them to track a patient from the field to the ER through hospitalization and potentially rehab. This field allows for collection of a unique identifier that could be used throughout all aspects of the patient’s care.

Data Type: Text **Format:** Length 15

Transport Personnel Training Level (TRANSPORT_LEVEL)

Definition: The highest level of training for personnel involved in this leg of the transport.

Values:

ALS	= Advance Life Support
BLS	= Basic Life Support
NONE	= Neither ALS nor BLS
NA	= Not applicable (the person was not transported by EMS)
UNK	= Unknown or not documented

Notes: Do not enter "Both". Use only the highest level.
If the patient was transported by private vehicle, police or walked-in, use "NA".

Data Type: Text **Format:** Length 5

Distance (DISTANCE)

Definition: Distance in miles from the scene of injury to the first receiving facility.

Values: Use whole miles if over 5 miles. Use miles and tenths if less than 5 miles.
NA = Not applicable
UNK = Unknown or not documented

Notes: Even a rough estimate would be helpful.

Data Type: Text **Format:** Length 5

Transport Agency Notification Date (NOTIFY_DATE)

Definition: The date the prehospital agency responsible for this leg of the transport was notified.

Related Variables: Transport Agency Notification Time

Examples: 02/16/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Transport Agency Notification Time (NOTIFY_TIME)

Definition: The time the prehospital agency responsible for this leg of the transport was notified.

Values: 00:01 (midnight) through 23:59

Related Variables: Transport Agency Notification Date

Data Type: Time **Format:** hh:mm

Transport Agency Mobilization Date (DATE_OUT)

Definition: The date the prehospital agency was mobilized (left the Base).

Related Variables: Transport Agency Mobilization Time

Examples: 04/19/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Transport Agency Mobilization Time (TIME_OUT)

Definition: The time the prehospital agency was mobilized (left the Base).

Values: 00:01 (midnight) through 23:59

Related Variables: Transport Agency Mobilization Date

Data Type: Time **Format:** hh:mm

Transport Scene Arrival Date (ARRIVAL_DATE)

Definition: The date the prehospital agency arrived at the scene.

Related Variables: Transport Scene Arrival Time

Examples: 03/26/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Transport Scene Arrival Time (ARRIVAL_TIME)

Definition: The time the prehospital agency arrived at the scene.

Values: 00:01 (midnight) through 23:59

Related Variables: Transport Scene Arrival Date

Data Type: Time **Format:** hh:mm

Transport Scene Departure Date (DEPARTURE_DATE)

Definition: The date the prehospital agency departed from the scene.

Related Variables: Transport Scene Departure Time

Examples: 03/29/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Transport Scene Departure Time (DEPARTURE_TIME)

Definition: The time the prehospital agency departed from the scene.

Values: 00:01 (midnight) through 23:59

Related Variables: Transport Scene Departure Date

Data Type: Time **Format:** hh:mm

Transport Destination Arrival Date (DESTINATION_ARRIVAL_DATE)

Definition: The date the prehospital agency arrived at its destination.

Related Variables: Transport Destination Arrival Time

Examples: 05/20/2007

Notes: Allows computation of time intervals

Data Type: Date **Format:** mm/dd/yyyy

Transport Destination Arrival Time (DESTINATION_ARRIVAL_TIME)

Definition: The time the prehospital agency arrived at it's destination

Values: 00:01 (midnight) through 23:59

Related Variables: Transport Destination Arrival Date

Data Type: Time **Format:** hh:mm

Transferring Facility (FROM_HOSPITAL)

Definition: The state code for the facility from which the patient was transferred.

Values: A list of facilities and codes is found in **Appendix I.**
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 6

Transfer Mode (TRANSFER_MODE)

Definition: The mode of transport from the referring facility to the receiving facility (the Trauma Center of Record).

Values:

AMB	= Ground ambulance
HELI	= Helicopter
WING	= Fixed wing aircraft
POL	= Police vehicle
POV	= Private vehicle
OTHER	= A mode other than those listed above
NA	= Not applicable (patient was not transported)
UNK	= Unknown or not documented

Related Variables: If the patient was transported by ground ambulance, helicopter, or fixed wing aircraft, prehospital response time variables, triage codes and field vital signs should also be completed.

Data Type: Text **Format:** Length 5

Date of Arrival at the Referring Facility (REFERRING_ARRIVAL_DATE)

Definition: The date the patient arrived at the referring facility.

Related Variables: Time of Arrival at the Referring Facility

Examples: 04/23/2007

Notes: Allows computation of time intervals.

DataType: Date **Format:** mm/dd/yyyy

Time of Arrival at the Referring Facility (REFERRING_ARRIVAL_TIME)

Definition: The time the patient arrived at the referring facility. The referring facility is a facility to which the patient was taken after the injury, and from which he or she was then transferred to the Trauma Center of Record.

Values: Range 00:01 to 23:59

Related Variables: Date of Arrival at the Referring Facility

Data Type: Time **Format:** hh:mm

Date of Discharge from the Referring Facility (REFERRING_DISCHARGE_DATE)

Definition: The date the patient was discharged or transferred from the referring facility.

Related Variables: Referring Facility Discharge Time

Examples: 03/31/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Time of Discharge from the Referring Facility (REFERRING_DISCHARGE_TIME)

Definition: The time the patient was discharged from or transferred from the referring facility. If the patient was admitted to the referring facility, this would be the discharge time. If the patient was seen in the ED of the referring facility, but was never admitted, this would be the time the patient left the facility and was transferred to the receiving facility (the Trauma Center of Record).

Values: Range 00:01 to 23:59

Related Variables: Referring Facility Discharge Date

Data Type: Time **Format:** hh:mm

Status of the Patient at the Referring Facility (REFERRING_ADMIT_TYPE)

Definition: The admission status of the patient at the referring facility prior to discharge or transfer

Values:
A = Admitted as an inpatient at the referring facility
E = Only seen in the emergency department of the referring facility
NA = Not applicable (the referring facility does not admit patients or has no Emergency Department)
UNK = Unknown or not documented

Data Type: Text **Format:** Length 5

Trauma Surgeon Consultation (REFERRING_CONSULT)

Definition: Did the transferring hospital consult with a trauma surgeon at the trauma center of record prior to transfer? The consult must be with a trauma surgeon, and not another surgeon on the trauma service such as an orthopedic surgeon or neurosurgeon.

Values:
Y = Yes
N = No
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 3

Date of Consultation with the Trauma Surgeon (REFERRING_CONSULT_DATE)

Definition: The date of consultation with the trauma surgeon

Related Variables: Time of Consultation with the Trauma Surgeon

Examples: 05/21/2007

Notes: Allows computation of time intervals.

Data Type: Date **Format:** mm/dd/yyyy

Time of Consultation with the Trauma Surgeon (REFERRING_CONSULT_TIME)

Definition: The time of consultation with the trauma surgeon

Values: 00:01 (midnight) through 23:59

Related Variables: Date of Consultation with Trauma Surgeon

Data Type: Time **Format:** hh:mm

Referring Registry Number (DATABASE_ID)

Definition: The trauma registry number at the referring facility.

Values: Alphanumeric TraumaBase record ID
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Transferring Facility Number

Data Type: Text **Format:** Length 10

Payment Source (PAYMENT_SOURCE)

Definition: Sources identified by the admitting facility as responsible for the patient's bill

Values:

BCBS	= Blue Cross/Blue Shield
INS	= Private/Commercial Insurance (HMO, PPO, etc.)
MCAID	= Medicaid
MCARE	= Medicare
NF	= No Fault Automobile
NOBILL	= Not billed (for any reason)
OTHGOV	= Other government
SELF	= Self-pay
WC	= Worker's Compensation
OTHER	= A payment source other than those listed above
NA	= Not applicable
UNK	= Unknown or not documented

Notes: The options were modified in 2008 to match the categories listed for the National Trauma Data Standard

Data Type: Text **Format:** Length 10

Diagnostic/Operative Procedure (PROCEDURE_ICD9)

Definition: ICD9 procedure code for specified diagnostic or operative procedures.

Values: Examples:

Operations on the nervous system
- 87.03 CT scan of the head
- 01.18 Other diagnostic procedures on brain and cerebral meninges
- 01.24 Other craniotomy
- 01.31 Incision of cerebral meninges
- 02.02 Elevation of skull fracture fragments
- 02.94 Insertion or replacement of skull tongs or halo traction device
- 03.0 Exploration and decompression of spinal canal structures
- 93.41 Spinal traction using skull device

Operations on the respiratory system
- 31.1 Temporary tracheostomy
- 32, 33 Excision of lung and bronchus
- 34.02 Exploratory thoracotomy
- 96.04 Insertion of endotracheal tube
- 87.41 CT scan of chest

Operations on the cardiovascular system
- 37.12 Pericardiotomy
- 37.91 Open chest cardiac massage
- 38.44 Resection/repair of abdominal aorta
- 38.45 Resection/repair of thoracic vessel
- 88.42 Aortography

Operations on digestive system (abdomen)
- 52.11 - 52.19 Laparotomy
- 54.25 Peritoneal lavage
- 50.61 Closure of laceration of liver
- 88.01 CT scan of abdomen
- 88.76 Diagnostic ultrasound of abdomen and retroperitoneum

Operations on musculoskeletal system
- 79.35 Open reduction of femur fracture with internal fixation
- 78.15 Application of external fixation device (femur)
- 78.16 Application of external fixation device (other, including pelvis)

References: International Classification of Diseases. 9th Revision. Clinical Modification (ICD9-CM).

Notes: The National Trauma Data Standard defines “Operative and/or essential procedures” as procedures performed in the Operating Room, Emergency Department, ICU, floor or radiology dept. that were essential to the diagnosis, stabilization or treatment of the patient’s specific injuries. Repeated diagnostic procedures (e.g., repeated CT scan) should not be recorded (record only the first procedure). Include only procedures performed at your institution.

The list of required procedures for download to the NTDB was modified on 2/15/2011. The NTDB list is included here for reference. If your facility downloads to the NTDB, you should follow the NTDB guidelines/instruction. If

your facility does not download to NTDB, for the purposes of the Colorado Trauma Registry, the highest priority is to include those procedures that resulted in definitive diagnosis or care of the patient.

NTDB list as of 2/15/2011:

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

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

CNS
Insertion of ICP monitor *
Ventriculostomy *
Cerebral oxygen monitoring *

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

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

Transfusion
The following blood products should be captured over first 24 hours after hospital arrival:
Transfusion of red cells *
Transfusion of platelets *
Transfusion of plasma *
In addition to coding the individual blood products listed above assign the 99.01 ICD-9 procedure code on patients that receive > 10 units of blood products over first 24 hours following hospital arrival *

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

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

Other
Hyperbaric oxygen
Decompression chamber
TPN *

Data Type: Text **Format:** Length 6

Diagnostic/Operative Procedure Start Date (PROCEDURE_START_DATE)

Definition: The date the operative procedure started.

Notes: This variable will be downloaded to the Colorado Trauma Registry beginning with discharges in September 2008.

Data Type: Date **Format:** mm/dd/yyyy

Diagnostic/Operative Procedure Start Time (PROCEDURE_START_TIME)

Definition: The time the operative procedure started.

Notes: This variable will be downloaded to the Colorado Trauma Registry beginning with discharges in September 2008.

Data Type: Time **Format:** hh:mm

Hospital Complications (COMP_TYPE)

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

Values:

ACS	= Abdominal compartment syndrome
ABD	= Abdominal fascia left open
ARF	= Acute renal failure
ARDS	= Acute respiratory distress syndrome (ARDS)
BLD	= Bleeding
CATH	= Catheter-related bloodstream infection **NEW**
CPR	= Cardiac arrest with CPR
COAG	= Coagulopathy
COMA	= Coma
CVA	= Stroke or CVA
DECUB	= Decubitus ulcer
DISRUPT	= Wound disruption
DVT	= Deep vein thrombosis (DVT) or thrombophlebitis
ECS	= Extremity compartment syndrome
FAIL	= Graft or prosthesis or flap failure
ICP	= Intracranial pressure
ICU	= Unplanned return to the ICU **NEW**
INTUB	= Unplanned intubation
MI	= Myocardial infarction
OR	= Unplanned return to the OR **NEW**
ORGAN	= Organ or space surgical site infection
OSTEO	= Osteomyelitis **NEW**
PNEU	= Pneumonia
PE	= Pulmonary embolism
SEPSIS	= Systemic sepsis
SEVSEP	= Severe sepsis **NEW**
SUP	= Superficial surgical site infection
SURGINF	= Deep surgical site infection
UTI	= Urinary Tract Infection **NEW**
WITH	= Drug or alcohol withdrawal syndrome
OTHER	= Other complication not listed above
NA	= Not applicable (use for patients with no complications)
UNK	= Unknown or not documented

Notes: Allows data to be used to characterize patients and hospital outcomes based upon the presence (and type) or hospital complication.

Definitions for some of these co-morbidities can be found in the 2011 National Trauma Data Standard data dictionary in Appendix 4: Glossary of Terms (see pages 133-140 at http://www.ntdsdictionary.org/dataElements/documents/NTDS2011_Final3.pdf).

Data Type: Text **Format:** Length 10

Re-encounter/Re-admission (READMISSION)

Definition: Does this record represent an unplanned/unexpected re-encounter or re-admission with a patient who has already been seen for this injury event, and is now returning for complications, missed diagnoses, failure of conservative management, iatrogenic injuries or other issues?

Values:
N=No
Y=Yes
NA = Not applicable
UNK = Unknown or not documented

Notes: The default value for this variable (and the other variables related to re-encounter/readmission) should be "NA" as most records are not re-encounters/readmissions.

There are four possible scenarios for re-encounters/re-admissions:

1. The patient came to your ED, was discharged from the ED, then returned to your facility at a later time (within 30 days) and was admitted.
2. The patient was seen at another facility's ED, was discharged from that ED, then came to your facility at a later time and was admitted.
3. The patient was admitted as an inpatient at another facility, was discharged, then came to your facility at a later time and was admitted.
4. The patient was admitted as an inpatient at your facility, was discharged, then returned to your facility at a later time and was re-admitted.

For the first three scenarios, a full record with all required variables should be completed on this case. Additionally, all variables that pertain to re-encounters/re-admissions should be completed

For the last scenario, a record should already exist in your trauma registry. For the re-admission, the trauma number assigned to the re-admission should be the original trauma number with ".1", ".2", ".3", etc. appended. For this scenario, a full second record does NOT need to be completed. The variables that should be completed in the second record include:

Trauma Number (if possible, previous Trauma Number with ".1", ".2", etc.)
Patient Name
Patient zip code of residence
Injury Description (describe the reason for the readmit)
Outcome
Trauma Center arrival date/time
Trauma Team Activation
Hospital admission date/time
Hospital discharge date/time
ICU days

Ventilator days
Hospital discharge disposition
Autopsy
ICD-9-CM diagnosis codes (identified DURING this encounter)
AIS code (identified DURING this encounter)
Diagnosis description (identified DURING this encounter)
Body region of injury (identified DURING this encounter)
ISS (identified DURING this encounter)
Payment source
Procedure codes/date/times (DURING this encounter)
Complications (DURING this encounter)

The first record should NOT be modified based on information from the second admission.

Data Type: Text **Format:** Length 3

Hospital of Previous Encounter (READMISSION_FACILITY)

Definition: The state code (facility ID) of the hospital where the patient was previously seen for this injury

Values: A list of facilities and codes is found in **Appendix I.**
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 6

Location of Previous Encounter (READMISSION_ADMIT_TYPE)

Definition: The admission status of the patient at the hospital where he/she was previously seen for this injury

Values: A = Admitted as an inpatient
E = Only seen in the emergency department
NA = Not applicable
UNK = Unknown or not documented

Data Type: Text **Format:** Length 5

Discharge Date of Previous Encounter (READMISSION_DC_DATE)

Definition: The discharge date from the previous encounter (ED or inpatient admission).

Examples: 03/29/2007

Notes: Allows computation of time intervals and identification of previous records.

Data Type: Date **Format:** mm/dd/yyyy

Trauma Number at Previous Facility (READMISSION_ID)

Definition: The trauma registry number at the hospital where the patient was previously seen for this injury.

Values: TraumaBase or Trauma One record ID
NA = Not applicable
UNK = Unknown or not documented

Related Variables: Hospital of Previous Encounter

Notes: This variable should only be completed if the patient's previous encounter was at another facility (not your facility).

Data Type: Text **Format:** Length 10

Reason for Re-encounter/Re-admission (READMISSION_REASON)

Definition: What was the reason for this patient's re-encounter/re-admission?

Values:

MISSED	= Missed diagnosis
COMP	= Complication
IATR	=Iatrogenic injury
FAIL	= Failed conservative management or outpatient pain control
OTHER	= Other
NA	= Not applicable
UNK	= Unknown or not documented

Data Type: Text **Format:** Length 7

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