

National Trauma Data Standard Change Log

- 1/24/2007 During a recent NTDB National Trauma Data Set (NTDS) Meeting held January 18, 2007 at ACS Headquarters, it was decided to revise the name of the “National Trauma Registry Project (NTR) to the National Trauma Data Standard Project (NTDS). Thus, the revised national data dictionary now reads: National Trauma Data Standard Data Dictionary (version 1.0).
- 1/24/2007 A typographical error was identified under XSD Data Type for Patient’s Home Zip Code (D_01). The data type was changed from integer to string.
- 1/24/2007 A revision to the dictionary and associated XML was made for Patient’s Home Country (D_02). The Minimum Constraint was changed from 3 to 2. The Maximum Constraint was changed from 3 to 2.
- 1/24/2007 A revision to the dictionary and associated XML was made for Patient’s Occupational Industry (I_04). The field value “Wholesale and Retail Trade” was changed to “Wholesale Trade”.
- 1/24/2007 A revision to the dictionary and associated XML was made for Location E-Code (I_07). The Minimum Constraint was changed from 3 to 1. The Maximum Constraint was changed from 5 to 1.
- 1/24/2007 A typographical error was identified under XSD Data Type for Incident Location Zip Code (I_09). The data type was changed from integer to string.
- 1/24/2007 A revision to the dictionary and associated XML was made for Protective Devices (I_13). The field value “Airbag” was changed to “Airbag Present”.
- 1/24/2007 A revision to the dictionary and associated XML was made for Airbag Deployment (I_15). The field value “No Airbag Deployed” was changed to “Airbag Not Deployed”.
- 1/24/2007 A revision to the dictionary and associated XML was made for Co-Morbid Conditions (DG_01). The field value “No Co-Morbid Condition Present” was changed to “No NTDS Co-Morbidities are Present”. A note was added to the data dictionary indicating: “The field value (1) “No NTDS co-morbidities are present” would be chosen if none of the pre-existing co-morbid factors listed above are present in the patient. This particular field value is available

since individual state or hospital registries may track additional co-morbid factors not listed here”.

- 1/24/2007 A revision to the dictionary and associated XML was made for Total ICU Length of Stay (O_01). The Maximum Constraint was changed from 100 to 400.
- 1/24/2007 A revision to the dictionary and associated XML was made for Total Ventilator Days (O_02). The Maximum Constraint was changed from 100 to 400.
- 1/24/2007 A typographical error was identified in variable Hospital Discharge Time (O_04). The minimum and maximum constraints were removed.
- 1/24/2007 A revision to the dictionary and associated XML was made for Hospital Complications (Q_01). The field value “No Medical Complications Occurred” was changed to “No NTDS listed Medical Complications Occurred”. A note was added to the data dictionary indicating: “The field value (1) “No NTDS listed medical complications occurred” would be chosen if none of the hospital complications listed above are present in the patient. This particular field value is available since individual state or hospital registries may track additional hospital complications not listed here”.
- 1/24/2007 A revision to the dictionary and associated XML was made for Co-Morbid Conditions (DG_01). The following two field values were added: “Prematurity” and “Congenital Anomalies”. Additional documentation was added to Appendix 7 to define these terms.
- 1/24/2007 A revision to the dictionary and associated XML was made for Co-Morbid Conditions (DG_01). The field value “History of Severe COPD” was replaced with “Respiratory Disease”. Appropriate changes to Appendix 7 were made.
- 1/24/2007 A revision to the dictionary was made to the field value “Impaired Sensorium” associated with the variable Co-Morbid Conditions (DG_01). Additional language was included to describe pediatric conditions.
- 4/12/2007 Revised the NTDS Data Dictionary 1.0 to version 1.1. The revision is associated with a re-working of Appendix 2. Version 1.0 included a description of variables (and accompanying XSDs) included in the NTDS XML to describe hospital characteristics (i.e., H_01 through H_05). These variables were to be collected by vendors (on an

annual basis) in such a way that the resulting values could be attached to each case submitted to the NTDB during that year. In reality, the NTDB chose to collect these data via a web entry form at the time hospitals submit data to the NTDB. Thus, the variables listed in version 1.0 (and additional variables) are captured by the ACS at the time of data submission by the hospital. No modification to the XML (or XSDs) is required at this time. Vendors may allow these variables to sit dormant within the NTDS XML. If vendors have additional questions, please contact Dr. Clay Mann at (801) 585-9161.

- 5/11/2007 Revised the NTDS Data Dictionary 1.1 to version 1.1.1. A clarification was made to variable "Hospital Discharge Disposition" (O_05). For field value = 6, "home" refers to any place of residence (jail, institutional care, etc). Also, the CDC Injury Intentionality Matrix (Table 2.) was updated to the latest version (Feb. 1, 2007).
- 5/18/2007 The NTDS XSDs were updated to reflect the name change of the dataset from NTR to NTDS. These changes were made to ensure the Validator contained in the new SDK would not hiccup. The changes made were:
Element: NtrRecords to NtdsRecords
Element: NtrRecord to NtdsRecord
Attribute: NTRVersion to NtdsVersion (and the fixed value to v1.0.0).
- 10/18/2007 **Revisions listed under 10/18/2007 change the NTDS 1.1.1 version to the NTDS 1.2 version**
- 10/18/2007 Age (D_08): XSD Minimum and Maximum Constraints changed from 1 and 120 to 0 and 120, respectively.
- 10/18/2007 GCS – Total (P_16) and Initial ED/Hospital GCS – Total (ED_13): XSD Minimum and Maximum Constraints changed from 1 and 15 to 3 and 15, respectively.
- 10/18/2007 Location E-Code (I_07): XSD Minimum and Maximum Constraints changed from 1 and 1 to 0 and 9, respectively.
- 10/18/2007 Patient's Home Country (D_02): XSD changed from string (size =2) with pattern limited to [0-9] to 2 character string with pattern A - Z.
- 10/18/2007 Patient's Home State (D_03): XSD had no restrictions other than string. Changed to 2 character string with pattern 0 - 9.

- 10/18/2007 Incident State (I-10): XSD was string restricted to length between 2 and 3 characters. Changed to 2 character string with pattern 0 - 9.
- 10/18/2007 Patient's Home County (D_04): XSD was an integer restriction of 2 or 3 places. Changed to 3 character string with pattern 0 – 9.
- 10/18/2007 Incident County (I_11): XSD was a string restriction of 2 or 3 digits. Changed to 3 character string with pattern 0 – 9.
- 10/18/2007 Patient's Home City (D_05): XSD was an integer restriction of 2 or 3 places. Changed to 5 character string with pattern 0 – 9.
- 10/18/2007 Incident City (I-12): XSD was a string restriction of 2 or 3 digits. Changed to 5 character string with pattern 0 – 9.
- 10/18/2007 Incident Country (I_09) was added to the database. The XML pattern is 2 character string with pattern 0 – 9. This additional variable reorders Incident Location Zip Code from (I_09) to I_13), Protective Devices (I_13) to (I_14), Child Specific Restraint (I_14) to (I_15), and Airbag Deployment (I_15) to (I_16) in the data dictionary.
- 10/18/2007 Co-morbid Conditions (DG_01), Patient's Occupational Industry (I_04), ED Discharge (ED_17), Hospital Discharge Disposition (O_05), ED Death (ED_18) and Hospital Complications (Q_01): XSDs were string with values enumerated as integers. All were changed to type integer with restriction of 2.
- 10/18/2007 Primary E-Code (I_06), Location E-Code (I_07) and Additional E-Code (I_08): XSD was type string with minimum 3 maximum 6 characters. Changed to type string with minimum 3 maximum 5 characters.
- 10/18/2007 Hospital Procedures (HP_01) and Injury Diagnoses (DG_02): XSD was type string with minimum 3 maximum 6 characters. Changed to type string with minimum 3 maximum 5 characters.
- 10/18/2007 Initial ED/Hospital Respiratory Assistance (ED_07): Type was declared at the bottom of the XSD but the element was not in the XSD, not making use of the Type. Initial ED/Hospital Respiratory Assistance was added to the XSD.
- 10/18/2007 Other Transport Mode (P_08): XSD allowed for unlimited entries. XSD set to a maximum of 5 entries.

- 10/18/2007 The definition for “coma” as a value under Hospital Complications (Q_01) was clarified to read: Defined as significantly impaired level of consciousness (exclude transient disorientation or psychosis) for greater than 24 hours. The patient should be unconscious, or postures to painful stimuli, or is unresponsive to all stimuli. Does not include drug-induced coma.
- 10/18/2007 The minimum and maximum constraints for Initial Field Systolic Blood Pressure (P_09) and Initial ED/Hospital Systolic Blood Pressure (ED_03) were revised from 0 and 400 to 0 and 299.
- 10/18/2007 The minimum and maximum constraints for Initial Field Pulse Rate (P-10) and Initial ED/Hospital Pulse Rate (ED_04) were revised from 0 and 400 to 0 and 299.
- 10/18/2007 The minimum and maximum constraints for Initial Field Respiratory Rate (P-11) and Initial ED/Hospital Respiratory Rate (ED_06) were revised from 0 and 100 to 0 and 59.
- 10/18/2007 Two value labels listed for Patient’s Occupational Industry (I-04) were correct. 11 was changed from “Other Services” to “Information Services” and 14 was changed from “Transportation and Utilities” to “Other Services”. The appropriate change was also made to the XSD.
- 10/18/2007 The minimum and maximum constraint for Initial ED/Hospital Temperature (ED_05) was revised from 0 and 400 to 0 and 120.
- 10/18/2007 The following clarifications have been added to the dictionary regarding Alcohol Use Indicator (ED_15):
- Blood alcohol concentration (BAC) may be documented at any facility (or setting) treating the patient.
- “Trace levels” is defined as any alcohol level below the legal limit, but not zero.
- “Beyond legal limit” is defined as a blood alcohol concentration above the legal limit for the state in which the treating institution is located.
- 10/18/2007 Hospital Procedures (HP_01): XSD allowed for unlimited entries. XSD set to a maximum of 200 entries.
- 10/18/2007 Injury Diagnoses (DG_02): XSD allowed for unlimited entries. XSD set to a maximum of 50 entries.

- 10/18/2007 Value labels associated with the variable Drug Use Indicator (ED_16) were revised to harmonize with value labels associated with Alcohol Use Indicator (ED_15). The value label “No (by test or not suspected)” was revised to “No (not suspected)”. The value label “Yes (suspected)” was revised to “No (confirmed by test)”. The appropriate XSD revisions were made.
- 10/18/2007 The following clarifications have been added to the dictionary regarding Drug Use Indicator (ED_16):
- Drug use may be documented at any facility (or setting) treating this patient event.
- “Illegal use drug” includes illegal use of prescription drugs.
- 10/18/2007 The following clarification has been added to the dictionary regarding ED Death (ED_18):
- Patients treated in accordance with a “Do Not Resuscitate” (DNR) order should be coded under “Died in ED (other than failed resuscitation attempt)”.
- 10/18/2007 An additional section was added to the NTDS Data Dictionary. This section, entitled “Injury Severity”, was added to accommodate variables related to AIS that may be reported by hospitals. These variables are considered *optional* and are not required by the NTDS. The variables added include:
1. AIS PREDOT Code (IS_01)
 2. AIS Severity (IS_02)
 3. ISS Body Region (IS_03)
 4. AIS Version (IS_04)
 5. Locally Calculated ISS (IS_05)
- 10/18/2007 Race (D_10): XSD allowed for unlimited entries. XSD set to a maximum of 2 entries.
- 10/18/2007 Ethnicity (D_11): XSD allowed for unlimited entries. XSD set to a maximum of 1 entry.
- 10/18/2007 An additional heading was added to each variable description called “Data Source Hierarchy”. The information under this heading is designed to indicate where (in order) an abstractor should look to find the associated information for each variable. The purpose of

this information is to aid in the standardization of data recorded in the NTDB.

- 11/26/2007 Patient's Home Zip Code (D_01): Changed XSD Data Type from xs:string to xs:zip.
- 11/26/2007 Location E-Code (I_07):
 - Changed XSD Data Type from xs:string to xs:integer.
 - Added minimum and maximum constraints of 0 to 9.
- 11/26/2007 Incident Country (I_09): Corrected the definition (had the Home Country definition)
- 11/26/2007 Incident Location Zip Code (I_13): Changed XSD Data Type from xs:string to xs:zip.
- 11/26/2007 Protective Devices (I_14): Changed the Multiple Entry Configuration from unbounded to max 10.
- 11/26/2007 Airbag Deployment (I_16): Added max 4 to the Multiple Entry Configuration.
- 11/26/2007 Other Transport Mode (P_08): Added max 5 to the Multiple Entry Configuration.
- 11/26/2007 Hospital Procedures (HP_01): Added max 200 to the Multiple Entry Configuration.
- 11/26/2007 Hospital Procedure Start Date (HP_02):
 - Changed the element name to match that of the XSD. Changed from *ProcedureDate* to *HospitalProcedureStartDate*.
 - Added max 200 to the Multiple Entry Configuration.
- 11/26/2007 Hospital Procedure Start Time (HP_03):
 - Changed the element name to match that of the XSD. Changed from *ProcedureTime* to *HospitalProcedureStartTime*.
 - Added max 200 to the Multiple Entry Configuration.
- 11/26/2007 Co-Morbid Conditions (DG_01): Added max 5 to the Multiple Entry Configuration.
- 11/26/2007 Injury Diagnoses (DG_02):
 - Changed XSD Data Type from xs:integer to xs:string.
 - Added max 50 to the Multiple Entry Configuration.

- 11/26/2007 AIS Predot Code (IS_01):
- Changed element name from AISPredot to AisPredot.
 - Added max 50 to the Multiple Entry Configuration.
- 11/26/2007 AIS Severity (IS_02):
- Changed element name from AISSeverity to AisSeverity.
 - Added max 50 to the Multiple Entry Configuration.
- 11/26/2007 ISS Body Region (IS_03):
- Changed element name from ISSRegion to IssRegion.
 - Added max 50 to the Multiple Entry Configuration.
- 11/26/2007 AIS Version (IS_04): Changed element name from AISVersion to AisVersion.
- 11/26/2007 Locally Calculated ISS (IS_05): Changed element name from ISSLocal to IssLocal.
- 11/26/2007 Primary Method of Payment (F_01):
- Changed XSD Data Type from xs:string to xs:integer.
 - Removed the minimum and maximum constraints.
- 11/26/2007 Hospital Complications (Q_01): Added max 10 to the Multiple Entry Configuration.
- 11/26/2007 FIPS Code (Appendix 1): Corrected County FIPS from 2-digit to 3-digit.
- 11/29/2007 INCIDENT LOCATION ZIP CODE (I_13): Added Incident Country to *"If 'Not Applicable', 'Not Recorded', or 'Not Known' complete variables: Incident State; Incident County; Incident City; and Incident Country."*
- 11/29/2007 Appendix 5: Added Incident Country to the Injury Variables
- 11/29/2007 Appendix 5: Added new section for Injury Severity Variables, which includes:
AIS Predot Code, AIS Severity, ISS Body Region, AIS Version, and Locally Calculated ISS
- 01/25/2008 Appendix 7 - Hospital Complications: Abdominal Compartment Syndrome. Added ICD-9-CM code 958.93
- 01/25/2008 Appendix 7 - Hospital Complications: Acute Renal Failure. Added ICD-9-CM codes 584.5 through 584.9 and 958.5

- 01/25/2008 Appendix 7 - Hospital Complications: Cardiac Arrest with CPR. Changed variable definition to read: The absence of a cardiac rhythm or presence of chaotic cardiac rhythm that results in loss of consciousness requiring the initiation of any component of basic and/or advanced cardiac life support. Excludes patients that arrive at the hospital in full arrest.
- 01/25/2008 Appendix 7 - Hospital Complications: Coagulopathy. Added ICD-9-CM code 286.6
- 01/25/2008 Appendix 7 - Hospital Complications: Deep Vein Thrombosis (DVT)/thrombophlebitis. Changed variable definition to read: The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. This diagnosis may be confirmed by a venogram, ultrasound, or CT. The patient must be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava.
- 01/25/2008 Appendix 7 - Hospital Complications: Deep Surgical Site Infection. Changed associated note to read: Report infections that involve both superficial and deep incision sites as deep surgical site infection. If wound spontaneously opens as a result of infection, code for Deep Surgical Site Infection and Wound Disruption.
- 01/25/2008 Appendix 7 - Hospital Complications: Deep Vein Thrombosis (DVT)/thrombophlebitis. Added ICD-9-CM codes 451.0, 451.1, 451.11, 451.19, 451.8, 451.81- 451.84, 451.89, 451.9
- 01/25/2008 Appendix 7 - Hospital Complications: Myocardial Infarction. Changed variable definition to read: A new acute myocardial infarction occurring during hospitalization (within 30 days of injury).
- 01/25/2008 Appendix 7 - Hospital Complications: Pneumonia. Added ICD-9-CM codes 480, 480.0-480.3, 482.3, 482.30, 482.4, 482.8, 482.82, 482.83, 483.0, 483.1, 484, 484.1, 484.3, 484.5-484.8
- 01/25/2008 Total Ventilator Days (Q_02): Added note under Additional Information: Includes mechanical ventilation time associated with OR procedures.
- 01/25/2008 Alcohol Use Indicator (ED_15): Modified first field value to read: No (not suspected, not tested). Also added note under Additional Information which reads: If alcohol use is suspected, but not confirmed by test, record null value "Not Known".

- 01/25/2008 Drug Use Indicator (ED_16): Modified first field value to read: No (not suspected, not tested). Modified second field value to read: No (confirmed by test). Also added note under Additional Information which reads: If drug use is suspected, but not confirmed by test, record null value "Not Known".
- 02/15/2008 Initial ED/Hospital Temperature (ED_05): Maximum constraint changed from 120 to 45.
- 02/15/2008 Injury Severity (IS_02): Field value added: 9 - Not Possible to Assign. Also added note under Additional Information which reads: The field value (9) "Not Possible to Assign" would be chosen if it is not possible to assign a severity to an injury.
- 02/15/2008 Patient's Home State (D_03): Modified item under Field Values to read: Relevant value for data element (two digit numeric FIPS code).
- 02/15/2008 Incident State (I_10): Modified item under Field Values to read: Relevant value for data element (two digit numeric FIPS code).
- 02/15/2008 Appendix 4 – Rule 6903: Modified to read: At least one diagnosis must be provided and meet inclusion criteria (800 – 959.9, except for 905 – 909.9, 910 – 924.9, 930 – 939.9)
- 02/15/2008 Appendix 4 – Rules 3601, 3701, 3801, 3901, 4701, 4901, 5001, 4801 and 5201 were modified to only enforce a length check and no longer enforce a range check.
- 02/15/2008 Appendix 4 – Rules 3603, 3703, 3803, 3903, 4704, 4903, 5005, 4804 and 5204 were added to enforce a range check.