ITDX

International Trauma Data Exchange

DATA DICTIONARY

RELEASE DATE

AUGUST 2019

VERSION

2020—R1

TVA TRAUMA VENDOR ALLIANCE

Table of Contents

Revision History

Revision	Author	Date	Status and Description
1	Michelle Brazel	August 2019	Initial Draft of ITDX 2020 DD

Preface

The underlying format of the International Trauma Data Exchange (ITDX) has been used as the industry technical data standard since 2009. From 2009-2017, that vendor-defined technical standard was utilized for the National Trauma Data Bank (NTDB) and the National Trauma Data Standard (NTDS) data dictionary (under a different name). In 2017, the Trauma Vendor Alliance (TVA) was formed to maintain the technical standard for continued industry use. At that time, the vendor technical format was re-branded as the ITDX. For 2019 the American College of Surgeons (ACS) has released a new NTDS dictionary and will require a new NTDS XML technical format for ACS TQIP® and NTDB data submissions. The ITDX was developed as a tool to help quality programs and Performance Improvement (PI) processes of all types thrive and allow continued support and integration between local registries and national programs such as ACS TQIP®. ITDX achieves this by providing an additional set of clinical data points that allow the registry solutions (implemented at hospitals, states, regions, and health systems) to align with new national standards through the use of a converter. The national standards are designed to support specific quality improvement program objectives. As such, it is important for organizations like ACS to establish specific clinical and technical reporting guidelines for how data is submitted to its databases. That is a key role of the NTDS XML. The ITDX, in contrast, focuses on the technical transmission standards by which data should be collected in a trauma registry and exchanged between hospital, state, regional, and health system registries. Both standards are vitally important as they serve specific purposes with distinct goals.

So, is ITDX an alternative to NTDS? Absolutely not! ITDX and NTDS are both important standards that serve different purposes. The ITDX works *with* NTDS to connect registries to ACS's quality programs, while at the same time allowing the registries to go in their own directions and remain fully aligned with evolving national standards. The ITDX functions with NTDS much in the way a shock absorber functions in an automobile. The ITDX smooths out the clinical bumps in the road as national standards evolve and allows a smooth and continuous implementation of trauma registry systems. In many examples, the clinical data collection practices need not ever change when using ITDX. One of the ways the ITDX achieves this "magic" is by adding helper fields that allow existing data points to retain their operational definitions. By designing trauma registry systems in this fashion, local analysis and PI are enhanced, and registrar productivity is not impacted for existing data capture.

A concrete example of this continuity in data collection was in 2017 when the ACS modified its operational definition for hospital discharge date and time and ED discharge date and time to stipulate that it should now be the order date and time. NTDS achieved this for its purposes by simply providing a new definition to the existing data point. Since the NTDS is a "year by year" standard, this presented no problem and was an expedient mechanism for that purpose. However, the ITDX is a "continuous" standard, meaning that operational definitions must remain consistent over time. The ITDX preserves the original, highly used definition of the prior hospital and ED discharge dates and times by being the actual, physical departure. To meet this particular change of the NTDS, the ITDX simply enhanced its data set to include a new set of data points to transmit the order date and time in addition to the physical date and time. This allows trauma registrars and hospital, state, and system registries to continue to collect physical discharge dates and times as they always have and gives them additional

data points to collect the order date and time. Both data points provide important but different metrics on length of stay and resource utilization; for example, it is interesting to compare physical length of stay with ordered length of stay and to have each independently for analysis. When data is transmitted between state, regional, or health system registries, both sets of data are available as desired when using ITDX. But when the same data is prepared for submission to ACS, it is simply converted so the order date and time is placed in the proper fields.

Another example are elements as basic as height and weight. In ITDX, these data points are universally collected, allowing for important calculations such as Body Mass Index to be computed for all patients, then transmitted and aggregated at state and regional levels regardless of the time the information was collected. Most patients' heights and weights do not vary substantially after 24 hours of admission. However, the TVA recognizes that the timeliness of data capture in these areas is important information for benchmarking and risk-adjusted analysis across multiple facilities. Accordingly, the National Trauma Data Standard requires concealing of this data (by using an N/A value) if the information was collected more than 24 hours after admission. The ITDX achieves this requirement via the addition of fields that describe the timeliness of certain data points. We refer to this innovation as "explicit timeliness." This allows a technical area for trauma registry vendors to communicate the timeliness of data elements such as height and weight. In this manner, height and weight can always be collected at hospital, state, and regional system registries when using ITDX, yet is readily presentable to ACS with the required data concealment rules and compliance with ACS clinical standards. Though simple, the height and weight fields are a tremendous example of how ITDX and NTDS work together to allow for a full range of data collection, uninterrupted by ever-changing national requirements.

Each year, the TVA enhances the ITDX so that the exact technical and clinical requirements for ACS TQIP® and NTDB can be met. However, the ITDX does not merely adopt the clinical definitions "as is." There are many reasons for this which are explained throughout this manual, but ultimately, each extension that ITDX brings to the table does one or more of the following:

- Allows greater clinical data detail capture at local, regional, state, and health system levels.
- Allows the collection of data points on all patients without the burden or data loss associated with null value rules. (Data masking only occurs at the time of final data submission to ACS quality programs).
- Provides time-saving features that allow registrars to enter data in the most efficient manner possible and compile it into the final technical formats required for compliance.
- Allows states and their stakeholders to have full autonomy to implement data exchange solutions with zero dependency on ACS technical formats.
- Ensures data continuity and backwards compatibility (meaning that queries and reports are not "broken" by operational definition changes year to year).

For many of the same reasons and benefits ITDX provides a technical buffer, it can provide a cost buffer—especially to hospitals and health systems of all sizes. It is always less expensive, both in terms of labor and software systems, to minimize change and maximize continuity. The more national standards that can be addressed through a converter, the more an organization is insulated from potential cost impacts of evolving national standards. This is a key benefit of ITDX. Looking beyond national compliance, the benefits of ITDX are even greater by using it directly to exchange data.

ITDX Benefits

What is ITDX? - A free data standard that provides 100% harmonization with ACS clinical requirements. Beginning in 2019, ITDX was included in all Windows and web-based trauma registry products of leading hospital trauma registry vendors such as Clinical Data Management (CDM), Digital Innovation (DI), and Lancet Technology.

As illustrated below and summarized on the following page ITDX provides benefits to hospitals, regions, health systems, and states.

Benefits to Hospitals - The ITDX allows registrars to maintain current data entry practices for fields such as Height and Weight, Physical ED and Hospital Discharge Date/Time, Complications, and Comorbidities. Registrars need only complete a small number of additional "helper fields" that are carefully designed to

provide a 100% lossless conversion for ACS TQIP® and NTDB data submission. This provides the best of all worlds - efficient data entry practices while meeting national and state compliance initiatives.

Benefits to Regions and Health Systems - The ITDX establishes a "common language" for regional trauma care systems and health care systems that can be supported by all member facilities, going above and beyond national data standard definitions and providing efficient and well-designed clinical and technical data definitions for a higher degree of analysis, system-wide performance improvement, and resource utilization/performance.

Benefits to States - Because the ITDX is already inside the majority of trauma registry applications that upload data to state systems, a state's adoption of ITDX eliminates multiple mapping and implementation steps for data submission to the state, saving both time and money. The integration of ITDX as the foundation for a state data dictionary ensures the state will remain 100% harmonized with ACS clinical definitions without creating a dependency on ACS technical standards. Moreover, the ITDX provides extensions so state databases can retain longitudinal data consistency across years and avoid masking the collection of useful data points.

ITDX Data Element Layers

The ITDX National Data Standard is based on an innovative approach that builds upon and extends beyond the meaning and functionality of standard data definitions. ITDX utilizes a tiered methodology as depicted by the colored key in the following diagram. We refer to this enhanced data specificity as "Clinical High-Def".

Clinical High-Def Data Layers
for National Compliance with ITDX Inside

NTDS

NTDS

ITDX
ITDX
ITDX

NTDS Aligned Fields
ITDX NTDS Continuity Fields
ITDX NTDS Harmonization Extensions
ITDX Industry Wide Extensions
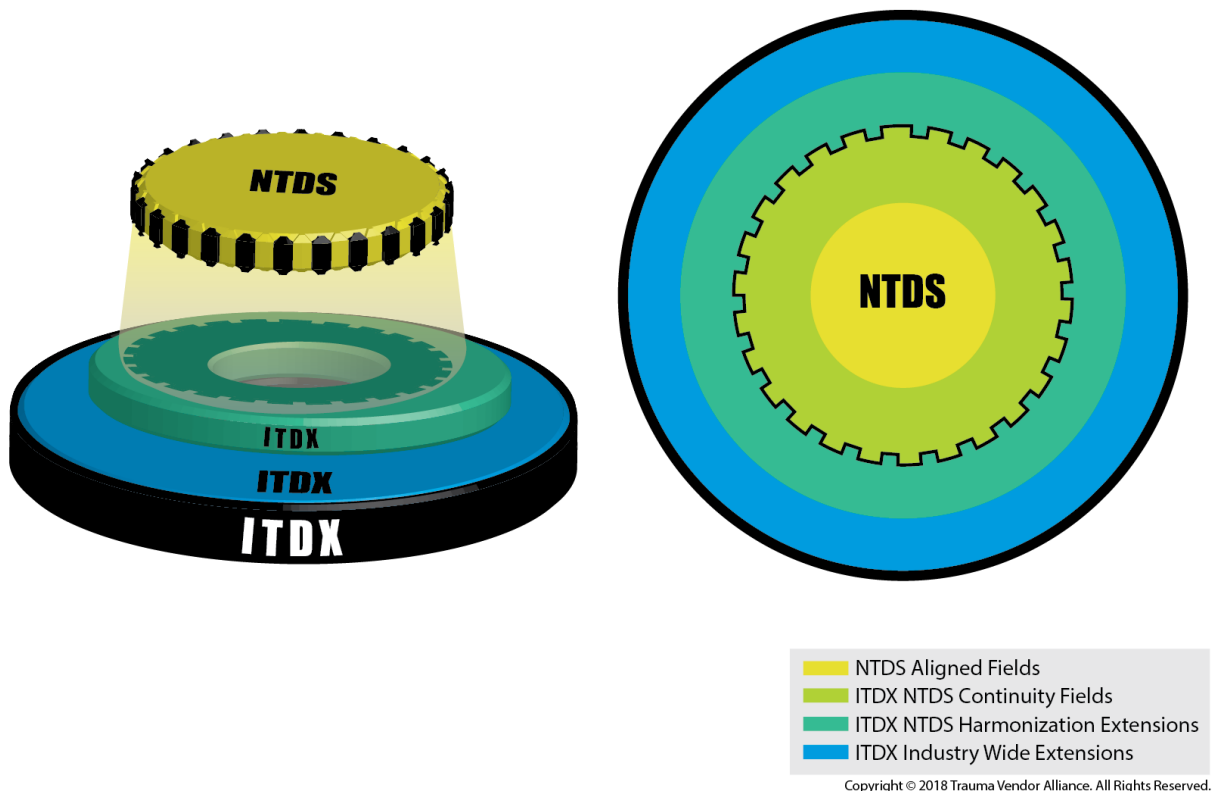
ITDX is comprised of multiple layers that serve different purposes:

1. At the core of ITDX is the priority to always remain 100% harmonized with NTDS clinical requirements, referred to as **NTDS Aligned Fields** (yellow ring).
2. ITDX also provides a mechanism to maintain certain data points for which definitions have changed or been modified over time, allowing for the ability to retain all prior and new definitions. These are referred to as **ITDX NTDS Continuity Fields** (lime green ring). This is critical for consistency in data collection, reporting, and analysis and provides a higher degree of backwards compatibility. A primary example of this is maintaining flexibility to collect both ED

and Hospital Discharge Dates and Times as they apply to the order discharge date/time and physical discharge date/time fields.

3. **ITDX NTDS Harmonization Extensions** are "helper fields" that provide information to ITDX to remain 100% harmonized with the NTDS year-specific clinical requirements (green-blue ring). These extensions allow data to be collected regardless of timeliness (ex. Vital Signs) but provide the information required to ensure proper conversion to the NTDS data definitions.

4. **ITDX Industry Wide Extensions** are standard field additions that allow for consistency of definitions on a national basis across multiple state and health system databases (blue ring). While these data points are outside the scope of national compliance, they provide important infrastructure to drive future initiatives that support local performance improvement, systems evaluation, and PI collaboratives.

ITDX is advancing the technical foundation for the trauma industry through this layered model - paving the way for the future. ITDX provides a path to efficiently implement state, regional, and system data collection initiatives that always remains aligned clinically with NTDS but can easily expand to meet local needs and PI objectives that cannot be supported by national standards alone. The ability to help impact patient care, outcomes, and analytics is perhaps the most exciting influence that ITDX has to offer.

Disclaimer: The ITDX is a technical data submission format. Transmission policies of data, including whether such transmissions are in the ITDX technical format or any other technical format, are outside the scope of this document. Users must fully comply with the laws and regulations applicable under all appropriate jurisdictions, including those inside or outside of the United States.

ITDX Data Dictionary Element List

This table is a listing of all 2020 ITDX data elements, including their respective tag names in the XML file as well as their Technical Standard – NTDS field or ITDX extension field. For further details about the use of the ITDX extension fields, please review the ITDX Data Dictionary Extensions Summary section of this guide.

Demographics

Field Name		Tag Name	Technical Standard
Patient's Home ZIP / Postal Code		HomeZip	NTDS
Patient's Home Country		HomeCountry	NTDS
Patient's Home State		HomeState	NTDS
Patient's Home County		HomeCounty	NTDS
Patient's Home City		HomeCity	NTDS
Alternate Home Residence		HomeResidence	NTDS
Date of Birth		DateOfBirth	NTDS
Age		Age	NTDS
Age Units		AgeUnits	NTDS
Race		Race	NTDS
Ethnicity		Ethnicity	NTDS
Sex		Sex	NTDS

Injury Information

Field Name	Tag Name	Technical Standard
Injury Incident Date	IncidentDate	NTDS
Injury Incident Time	IncidentTime	NTDS
Work-Related	WorkRelated	NTDS
Patient's Occupational Industry	PatientsOccupationalIndustry	NTDS
Patient's Occupation	PatientsOccupation	NTDS
ICD-10 Primary External Cause Code	PrimaryECodeICD10	NTDS
ICD-10 Place of Occurrence External Cause Code	PlaceOfInjuryCode	NTDS
ICD-10 Additional External Cause Code	AdditionalECodeICD10	NTDS
Incident Location ZIP / Postal Code	InjuryZip	NTDS
Incident Country	IncidentCountry	NTDS

Incident State	IncidentState	NTDS
Incident County	IncidentCounty	NTDS
Incident City	IncidentCity	NTDS
Protective Devices	ProtectiveDevice	NTDS
Child Specific Restraint	ChildSpecificRestraint	NTDS
Airbag Deployment	AirbagDeployment	NTDS
Report of Physical Abuse	AbuseReport	ITDX
Investigation of Physical Abuse	AbuseInvestigation	ITDX
Caregiver at Discharge	CaregiverAtDischarge	ITDX
Trauma Type	TraumaType	ITDX

Prehospital Information

Field Name	Tag Name	Technical Standard
EMS Dispatch Date	EmsNotifyDate	NTDS
EMS Dispatch Time	EmsNotifyTime	NTDS
EMS Unit Arrival Date at Scene or Transferring Facility	EmsArrivalDate	NTDS
EMS Unit Arrival Time at Scene or Transferring Facility	EmsArrivalTime	NTDS
EMS Unit Departure Date from Scene or Transferring Facility	EmsLeftDate	NTDS
EMS Unit Departure Time from Scene or Transferring Facility	EmsLeftTime	NTDS
Transport Mode	TransportMode	NTDS
Other Transport Mode	OtherTransportMode	NTDS
Initial Field Systolic Blood Pressure	EmsSbp	NTDS
Initial Field Pulse Rate	EmsPulseRate	NTDS
Initial Field Respiratory Rate	EmsRespiratoryRate	NTDS
Initial Field Oxygen Saturation	EmsPulseOximetry	NTDS
Initial Field GCS - Eye	EmsGcsEye	NTDS
Initial Field GCS - Verbal	EmsGcsVerbal	NTDS
Initial Field GCS - Motor	EmsGcsMotor	NTDS
Initial Field GCS - Total	EmsTotalGcs	NTDS
Initial Field GCS 40 - Eye	EmsGcs40Eye	NTDS
Initial Field GCS 40 - Verbal	EmsGcs40Verbal	NTDS
Initial Field GCS 40 - Motor	EmsGcs40Motor	NTDS
Inter-Facility Transfer	InterFacilityTransfer	NTDS
Trauma Center Criteria	TraumaCenterCriterion	NTDS
Vehicular, Pedestrian, Other Risk Injury	VehicularPedestrianOther	NTDS
Prehospital Cardiac Arrest	PrehospitalCardiacArrest	NTDS

Emergency Department Information

Field Name	Tag Name	Technical Standard
ED / Hospital Arrival Date	HospitalArrivalDate	NTDS
ED / Hospital Arrival Time	HospitalArrivalTime	NTDS
Initial ED / Hospital Systolic Blood Pressure	Sbp	NTDS
Initial ED / Hospital Pulse Rate	PulseRate	NTDS
Initial ED / Hospital Temperature	Temperature	NTDS
Initial ED / Hospital Respiratory Rate	RespiratoryRate	NTDS
Initial ED / Hospital Respiratory Assistance	RespiratoryAssistance	NTDS
Initial ED / Hospital Oxygen Saturation	PulseOximetry	NTDS
Initial ED / Hospital Supplemental Oxygen	SupplementalOxygen	NTDS
Initial ED / Hospital GCS - Eye	GcsEye	NTDS
Initial ED / Hospital GCS - Verbal	GcsVerbal	NTDS
Initial ED / Hospital GCS - Motor	GcsMotor	NTDS
Initial ED / Hospital GCS - Total	TotalGcs	NTDS
Initial ED / Hospital GCS Assessment Qualifiers	GcsQualifier	NTDS
Initial ED / Hospital GCS 40 - Eye	Gcs40Eye	NTDS
Initial ED / Hospital GCS 40 - Verbal	Gcs40Verbal	NTDS
Initial ED / Hospital GCS 40 - Motor	Gcs40Motor	NTDS
Initial ED / Hospital Height	Height	ITDX
Initial ED / Hospital Weight	Weight	ITDX
Drug Screen	DrugScreen	NTDS
Alcohol Screen	AlcoholScreen	NTDS
Alcohol Screen Results	AlcoholScreenResult	NTDS
ED Discharge Disposition	EDDischargeDisposition	NTDS
Trauma Team Involvement	TraumaTeamInvolvement	ITDX
Signs of Life	DeathInED	ITDX
ED Discharge Orders Written Date	EDDischargeOrdersWrittenDate	NTDS
ED Discharge Orders Written Time	EDDischargeOrdersWrittenTime	NTDS
ED Discharge Physical Date	EDDischargePhysicalDate	ITDX
ED Discharge Physical Time	EDDischargePhysicalTime	ITDX

Hospital Procedure Information

Field Name	Tag Name	Technical Standard
ICD-10 Hospital Procedures	HospitalProcedureICD10	NTDS
Hospital Procedure Start Date	HospitalProcedureStartDate	NTDS
Hospital Procedure Start Time	HospitalProcedureStartTime	NTDS

Diagnosis Information

Field Name	Tag Name	Technical Standard
Comorbid Conditions	ComorbidCondition	NTDS
ICD-10 Injury Diagnoses	DiagnosisICD10	NTDS

Injury Severity Information

Field Name	Tag Name	Technical Standard
AIS Predot Code	AisPredot	NTDS
AIS Severity	AisSeverity	NTDS
ISS Body Region	IssRegion	ITDX
AIS Version	AisVersion	NTDS
Locally Calculated ISS	IssCalculated	ITDX

Outcome Information

Field Name	Tag Name	Technical Standard
Total ICU Length of Stay	TotalIcuLos	NTDS
Total Ventilator Days	TotalVentDays	NTDS
Hospital Discharge Orders Written Date	HospitalDischargeOrdersWrittenDate	NTDS
Hospital Discharge Orders Written Time	HospitalDischargeOrdersWrittenTime	NTDS
Hospital Physical Discharge Date	HospitalPhysicalDischargeDate	ITDX
Hospital Physical Discharge Time	HospitalPhysicalDischargeTime	ITDX
Hospital Discharge Disposition	HospitalDischargeDisposition	NTDS

Financial Information

Field Name	Tag Name	Technical Standard
Primary Method of Payment	PrimaryMethodPayment	NTDS

Hospital Events

Field Name	Tag Name	Technical Standard
Hospital Complications	HospitalComplication	NTDS

Trauma Quality Improvement Program
Measures for Processes of Care

(To be collected and transmitted by Level 1 and Level 2 TQIP® participating centers only.)

Field Name	Tag Name	Technical Standard
Highest GCS Total	TbiHighestTotalGcs	NTDS
Highest GCS Motor	TbiGcsMotor	NTDS
GCS Assessment Qualifier Component of Highest GCS Total	TbiGcsQualifier	NTDS
Highest GCS 40 - Motor	TbiGcs40Motor	NTDS
Initial ED / Hospital Pupillary Response	TbiPupillaryResponse	NTDS
Midline Shift	TbiMidlineShift	NTDS
Cerebral Monitor	TbiCerebralMonitor	NTDS
Cerebral Monitor Date	TbiCerebralMonitorDate	NTDS
Cerebral Monitor Time	TbiCerebralMonitorTime	NTDS
Venous Thromboembolism Prophylaxis Type	VteProphylaxisType	NTDS
Venous Thromboembolism Prophylaxis Date	VteProphylaxisDate	NTDS
Venous Thromboembolism Prophylaxis Time	VteProphylaxisTime	NTDS
Packed Red Blood Cells (4 Hours)	TransfusionBlood4Hours	NTDS
Whole Blood (4 Hours)	WholeBlood4Hours	NTDS
Transfusion Plasma (4 Hours)	TransfusionPlasma4Hours	NTDS

Transfusion Platelets (4 Hours)	TransfusionPlatelets4Hours	NTDS
Cryoprecipitate (4 Hours)	Cryoprecipitate4Hours	NTDS
Lowest ED / Hospital Systolic Blood Pressure	LowestSbp	NTDS
Angiography	Angiography	NTDS
Embolization Site	EmbolizationSite	NTDS
Angiography Date	AngiographyDate	NTDS
Angiography Time	AngiographyTime	NTDS
Surgery for Hemorrhage Control Type	HemorrhageControlSurgeryType	NTDS
Surgery for Hemorrhage Control Date	HemorrhageControlSurgeryDate	NTDS
Surgery for Hemorrhage Control Time	HemorrhageControlSurgeryTime	NTDS
Withdrawal of Life Supporting Treatment	WithdrawalOfLifeSupportingTreatment	NTDS
Withdrawal of Life Supporting Treatment Date	WithdrawalOfLifeSupportingTreatmentDate	NTDS
Withdrawal of Life Supporting Treatment Time	WithdrawalOfLifeSupportingTreatmentTime	NTDS
Antibiotic Therapy	AntibioticTherapy	NTDS
Antibiotic Therapy Date	AntibioticTherapyDate	NTDS
Antibiotic Therapy Time	AntibioticTherapyTime	NTDS

Surgeon Specific Reporting

(Field(s) in this section are optional)

Field Name	Tag Name	Technical Standard
National Provider Identifier (NPI)	NationalProviderIdentifier	NTDS

ITDX Record Control Information

Field Name	Tag Name	Technical Standard
Last Modified Date Time	LastModifiedDateTime	ITDX
Patient Identifier	PatientId	ITDX
Facility Identifier	FacilityId	ITDX
Record Linkage Type	LinkageType	ITDX
Record Linkage State Identifier	LinkageStateId	ITDX
Record Linkage Facility Identifier	LinkageFacilityId	ITDX

Record Linkage Record Identifier	LinkageRecordId	ITDX
Record Linkage Global Key	LinkageGlobalKey	ITDX
Software Vendor	SoftwareVendor	ITDX
Software Product	SoftwareProduct	ITDX
Software Version	SoftwareVersion	ITDX

ITDX Explicit Negatives

Field Name	Tag Name	Technical Standard
Explicit Negatives - Element Type	ElementKey	ITDX
Explicit Negatives - Menu Value	ValueKey	ITDX
Explicit Negative	ExplicitNegative	ITDX

ITDX Explicit Timeliness

Field Name	Tag Name	Technical Standard
Explicit Timeliness - Element Type	TimelinessKey	ITDX
Explicit Timeliness - Date	EtDate	ITDX
Explicit Timeliness - Time	EtTime	ITDX
Explicit Timeliness	EtTimely	ITDX

ITDX Data Dictionary Extensions Summary

The extensions summary below is a subset of the full data element list, and its purpose is to describe the ITDX data fields that have been added or enhanced to support national, state, regional, and system registries and PI initiatives.

ITDX Extension Field Name	Rationale
Report of Physical Abuse	For data consistency and continuity of data collection, the report of physical abuse data element will be retained despite being retired from the NTDS data dictionary.
Investigation of Physical Abuse	For data consistency and continuity of data collection, the investigation of physical abuse data element will be retained despite being retired from the NTDS data dictionary.
Caregiver at Discharge	For data consistency and continuity of data collection, the caregiver at discharge data element will be retained despite being retired from the NTDS data dictionary.
Trauma Type	The addition of this data element allows for more precision in reporting related to injury type categorization. For example, typical machinery mappings are coded as "blunt", but many are actually penetrating. This field allows for improved data collection precision.
Initial ED / Hospital Height	To allow patient's height to be collected regardless of the timeliness in which it was collected.
Initial ED / Hospital Weight	To allow patient's weight to be collected regardless of the timeliness in which it was collected.
Trauma Team Involvement	Indicates if the trauma team was activated at any level, including a trauma consult. The goal is to identify if a member of the trauma team was involved in the care of the patient in any capacity. This field is intended to help determine inclusion criteria based on the expanded national inclusion definition.
Signs of Life	For data consistency and continuity of data collection, the signs of life data element will be retained despite being retired from the NTDS data dictionary.
ED Discharge Physical Date	Allows for the continuation of physical/actual ED discharge date to support consistency in the computation of patient ED length of stay (LOS). This data is still collected by many collaborative trauma registry systems.
ED Discharge Physical Time	Allows for the continuation of physical/actual ED discharge time to support consistency in the computation of patient ED length of stay (LOS). This data is still collected by many collaborative trauma registry systems.
ISS Body Region	This field existed in previous iterations of NTDS and has been removed in current versions. For continuity and data

	trending purposes, it is still collected by ITDX. This data is still collected by many collaborative trauma registry systems.
Locally Calculated ISS	This field existed in previous iterations of NTDS and has been removed in current versions. For continuity and data trending purposes, it is still collected by ITDX. This data is still collected by many collaborative trauma registry systems.
Hospital Physical Discharge Date	Allows for the continuation of physical/actual hospital discharge date to support consistency in the computation of patient hospital length of stay (LOS). This data is still collected by many collaborative trauma registry systems.
Hospital Physical Discharge Time	Allows for the continuation of physical/actual hospital discharge time to support consistency in the computation of patient hospital length of stay (LOS). This data is still collected by many collaborative trauma registry systems.
Last Modified Date Time	Tracking field to allow for centralized deduplication of submitted records.
Patient Identifier	Tracking field to allow for centralized deduplication of submitted records.
Facility Identifier	Tracking field to allow for centralized deduplication of submitted records.
Record Linkage Type	Allows for the association of multiple standardized record linkages to a trauma patient record (such as EMS ePCR linkage, hospital interfacility transfer linkage, EMR linkage, Rehab linkage).
Record Linkage State Identifier	Allows for system-wide ID assignments/schemes to be correlated to individual trauma records to support linkages of many types with other state/system registries.
Record Linkage Facility Identifier	Identification of the organization ID providing a data source linked to the trauma registry record (e.g. an EMS agency ID or hospital ID number).
Record Linkage Record Identifier	Allows for the linking of the target record's unique identifier.
Record Linkage Global Key	To support industry-wide immutable globally unique identifiers (GUIDs) initiatives to help support unambiguous data linkage to other centralized registries from submitted trauma registry records.
Software Vendor	To assist central registries in interpreting nuances of data collection variations specific to a given vendor; and to have a way to categorize potential variations across sites that could indicate a product specific mapping or data collection issue in a given source system.
Software Product	To assist central registries in interpreting nuances of data collection variations specific to a given vendor's product; and to have a way to categorize potential variations across

	sites that could indicate a product specific mapping or data collection issue in a given source system.
Software Version	To assist central registries in interpreting nuances of data collection variations specific to a given vendor's product version; and to have a way to categorize potential variations across sites that could indicate a product specific mapping or data collection issue in a given source system.
Explicit Negatives - Element Type	Allows for the unlimited future expansion of the explicit negative innovation for items such as complications, comorbidities, etc. This allows the continued collection of positive only selections to streamline registrar data entry and provide critical continuity for analytics and reporting. This is achieved by allowing a separate explicit negatives list to capture only the rare events of unknown and not applicable selections. This data is stored separately from the affirmative responses. Collecting the information this way avoids having to enter "no" values for items such as comorbidities and complications on every record. The Element Type provides the name of the data point to which the explicit negative fields are associated, such as comorbidity or complications.
Explicit Negatives - Menu Value	Elements with multiple values, such as comorbidity and complications, need a distinct menu value to which to associate the explicit negative value.
Explicit Negative	This is the explicit negative or null value to the associated element and menu value.
Explicit Timeliness - Element Type	Allows for unlimited ability to associate timeliness and/or specific times to an underlying data point. This allows the underlying data point to be captured irrespective of timeliness, so local and centralized registries can consistently have access to the data regardless of any national rules requiring limited reporting. Allows for continued collection of patients' height/weight regardless of the timeliness and therefore supports analytics and computation of measures such as BMI for all patients in hospital and state registries. The Element Type provides the data point or element group to which the explicit timeliness values are associated, such as height, weight, or initial hospital vitals.
Explicit Timeliness - Date	This is the explicit date associated with the element type data point or group.
Explicit Timeliness - Time	This is the explicit time associated with the element type data point or group.
Explicit Timeliness	This is the explicit timeliness grade (Yes/No) associated to the element type data point or group.

ITDX Data Dictionary Element Details

The pages below are descriptions of each data element in the ITDX data dictionary.

Null Values

Definition

The following values may be used in the ITDX data elements where appropriate. This is often technically referred to as the "BIU Value." The acceptable values are listed below:

1 Not Applicable

2 Unknown/Not Documented

Additional Information

● Not Applicable (NA): This null value code is appropriate if the data element was "Not Applicable" to the patient during the time of prehospital or hospitalization. For example, prehospital data elements would be "Not Applicable" if a patient arrives at the hospital via private vehicle.

● Unknown/Not Documented (UNK/NOT) This null value applies if the information for the data element is not known or knowable by the patient or family or if the data is not recorded in patient documentation by any health care provider. This value documents that information was attempted to be found but was unsuccessful. An example would be "Unknown/Not Documented" if the patient was discovered and no one knew the injury time. Another example would be if an EMS run sheet was not available, the scene vitals signs would be "Unknown/Not Documented."

Patient's Home ZIP / Postal Code

Overview

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

NTDS Core	
Tag Name	HomeZip
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Patient's Home Country

Overview

The country where the patient resides.

NTDS Core	
Tag Name	HomeCountry
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Patient's Home State

Overview

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

NTDS Core	
Tag Name	HomeState
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Patient's Home County

Overview

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

NTDS Core	
Tag Name	HomeCounty
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Patient's Home City

Overview

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

NTDS Core	
Tag Name	HomeCity
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Alternate Home Residence

Overview

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

NTDS Core	
Tag Name	HomeResidence
Data Type	integer
Tag Group	HomeResidences (up to 3 times)
Tag Usage	Mandatory

Field Values	
	1. Homeless
	2. Undocumented Citizen
	3. Migrant Worker

Date of Birth

Overview

The patient's birth date.

NTDS Core	
Tag Name	DateOfBirth
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

Age

Overview

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

NTDS Core	
Tag Name	Age
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Age Units

Overview

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

NTDS Core	
Tag Name	AgeUnits
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Hours
	2. Days
	3. Months
	4. Years
	5. Minutes
	6. Weeks

Race

Overview

The patient's race.

NTDS Core	
Tag Name	Race
Data Type	integer
Tag Group	Races (up to 6 times)
Tag Usage	Mandatory

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

Ethnicity

Overview

The patient's ethnicity.

NTDS Core	
Tag Name	Ethnicity
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

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

Sex

Overview

The patient's sex.

NTDS Core	
Tag Name	Sex
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Male
	2. Female

Injury Incident Date

Overview

The date the injury occurred.

NTDS Core	
Tag Name	IncidentDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

Injury Incident Time

Overview

The time the injury occurred.

NTDS Core	
Tag Name	IncidentTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

Work-Related

Overview
Indication of whether the injury occurred during paid employment.

NTDS Core	
Tag Name	WorkRelated
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Yes
	2. No

Patient's Occupational Industry

Overview

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

NTDS Core	
Tag Name	PatientsOccupationalIndustry
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Finance, Insurance, and Real Estate
	2. Manufacturing
	3. Retail Trade
	4. Transportation and Public Utilities
	5. Agriculture, Forestry, Fishing
	6. Professional and Business Services
	7. Education and Health Services

8. Construction

9. Government

10. Natural Resources and Mining

11. Information Services

12. Wholesale Trade

13. Leisure and Hospitality

14. Other Services

Patient's Occupation

Overview
The occupation of the patient.

NTDS Core	
Tag Name	PatientsOccupation
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Business and Financial Operations Occupations
	2. Architecture and Engineering Occupations
	3. Community and Social Services Occupations
	4. Education, Training, and Library Occupations
	5. Healthcare Practitioners and Technical Occupations
	6. Protective Service Occupations
	7. Building and Grounds Cleaning and Maintenance

8. Sales and Related Occupations
9. Farming, Fishing, and Forestry Occupations
10. Installation, Maintenance, and Repair Occupations
11. Transportation and Material Moving Occupations
12. Management Occupations
13. Computer and Mathematical Occupations
14. Life, Physical, and Social Science Occupations
15. Legal Occupations
16. Arts, Design, Entertainment, Sports, and Media
17. Healthcare Support Occupations
18. Food Preparation and Serving Related
19. Personal Care and Service Occupations
20. Office and Administrative Support Occupations
21. Construction and Extraction Occupations
22. Production Occupations
23. Military Specific Occupations

ICD-10 Primary External Cause Code

Overview

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

NTDS Core	
Tag Name	PrimaryECodeICD10
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

ICD-10 Place of Occurrence External Cause Code

Overview

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

NTDS Core	
Tag Name	PlaceOfInjuryCode
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

ICD-10 Additional External Cause Code

Overview

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

NTDS Core	
Tag Name	AdditionalECodeICD10
Data Type	string
Tag Group	AdditionalECodeICD10s (up to 2)
Tag Usage	Mandatory

Incident Location ZIP / Postal Code

Overview

The ZIP/Postal code of the incident location.

NTDS Core	
Tag Name	InjuryZip
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Incident Country

Overview

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

NTDS Core	
Tag Name	IncidentCountry
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Incident State

Overview

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

NTDS Core	
Tag Name	IncidentState
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Incident County

Overview

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

NTDS Core	
Tag Name	IncidentCounty
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Incident City

Overview

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

NTDS Core	
Tag Name	IncidentCity
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Protective Devices

Overview

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

NTDS Core	
Tag Name	ProtectiveDevice
Data Type	integer
Tag Group	ProtectiveDevices (up to 10 times)
Tag Usage	Mandatory

Field Values	
	1. None
	2. Lap Belt
	3. Personal Floatation Device
	4. Protective Non-Clothing Gear (E.g. Shin Guard)
	5. Eye Protection
	6. Child Restraint (Booster Seat or Child Car Seat)
	7. Helmet (E.g. Bicycle, Skiing, Motorcycle)

| 8. Airbag Present |
| 9. Protective Clothing (E.g. Padded Leather Pants) |
| 10. Shoulder Belt |
| 11. Other |

Child Specific Restraint

Overview

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

NTDS Core	
Tag Name	ChildSpecificRestraint
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

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

Airbag Deployment

Overview

Indication of airbag deployment during a motor vehicle crash.

NTDS Core	
Tag Name	AirbagDeployment
Data Type	integer
Tag Group	AirbagDeployments (up to 4 times)
Tag Usage	Mandatory

Field Values	
	1. Airbag Not Deployed
	2. Airbag Deployed Front
	3. Airbag Deployed Side
	4. Airbag Deployed Other (Knee, Air Belt, Curtain, Etc.)

Report of Physical Abuse

Overview

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

ITDX Extension	
Extension Rationale	While this data element is no longer collected nationally, for continuity of data collection this field can optionally still be collected.
Tag Name	AbuseReport
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Investigation of Physical Abuse

Overview

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

ITDX Extension	
Extension Rationale	While this data element is no longer collected nationally, for continuity of data collection this field can optionally still be collected.
Tag Name	AbuseInvestigation
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Caregiver at Discharge

Overview

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

ITDX Extension	
Extension Rationale	While this data element is no longer collected nationally, for continuity of data collection this field can optionally still be collected.
Tag Name	CaregiverAtDischarge
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Trauma Type

Overview

The primary source of the trauma injury sustained by the patient.

ITDX Extension	
Extension Rationale	Allows for more precise accuracy in reporting this data element. For example, typical machinery mappings are coded as "blunt", but many are penetrating. This field allows for this data collection precision.
Tag Name	TraumaType
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Blunt
	2. Penetrating
	3. Burn
	4. Other

ITDX Data Element Details – Prehospital Information

EMS Dispatch Date

Overview

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

NTDS Core	
Tag Name	EmsNotifyDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

EMS Dispatch Time

Overview

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

NTDS Core	
Tag Name	EmsNotifyTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

EMS Unit Arrival Date at Scene or Transferring Facility

Overview

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

NTDS Core	
Tag Name	EmsArrivalDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

EMS Unit Arrival Time at Scene or Transferring Facility

Overview

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

NTDS Core	
Tag Name	EmsArrivalTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

EMS Unit Departure Date from Scene or Transferring Facility

Overview

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

NTDS Core	
Tag Name	EmsLeftDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

EMS Unit Departure Time from Scene or Transferring Facility

Overview

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

NTDS Core	
Tag Name	EmsLeftTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

Transport Mode

Overview

The mode of transport delivering the patient to your hospital.

NTDS Core	
Tag Name	TransportMode
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Ground Ambulance
	2. Helicopter Ambulance
	3. Fixed-Wing Ambulance
	4. Private/Public Vehicle/Walk-In
	5. Police
	6. Other

Other Transport Mode

Overview

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

NTDS Core	
Tag Name	OtherTransportMode
Data Type	integer
Tag Group	OtherTransportModes (up to 5 times)
Tag Usage	Mandatory

Field Values	1. Ground Ambulance
	2. Helicopter Ambulance
	3. Fixed-Wing Ambulance
	4. Private/Public Vehicle/Walk-In
	5. Police
	6. Other

Initial Field Systolic Blood Pressure

Overview

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

NTDS Core	
Tag Name	EmsSbp
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial Field Pulse Rate

Overview

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

NTDS Core	
Tag Name	EmsPulseRate
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial Field Respiratory Rate

Overview

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

NTDS Core	
Tag Name	EmsRespiratoryRate
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial Field Oxygen Saturation

Overview

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

NTDS Core	
Tag Name	EmsPulseOximetry
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial Field GCS - Eye

Overview

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

NTDS Core	
Tag Name	EmsGcsEye
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. No Eye Movement When Assessed
	2. Open Eyes in Response to Painful Stimulation
	3. Opens Eyes in Response to Verbal Stimulation
	4. Opens Eyes Spontaneously

Initial Field GCS - Verbal

Overview

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

NTDS Core	
Tag Name	EmsGcsVerbal
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric (<= 2 years)	1. No Vocal Response
	2. Inconsolable, Agitated
	3. Inconsistently Consolable, Moaning
	4. Cries but is Consolable, Inappropriate Interactions
	5. Smiles, Oriented to Sounds, Follows Objects, Interacts
Adult	1. No Verbal Response
	2. Incomprehensible Sounds
	3. Inappropriate Words
	4. Confused
	5. Oriented

Initial Field GCS - Motor

Overview

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

NTDS Core	
Tag Name	EmsGcsMotor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric (<= 2 years)	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Appropriate Response to Stimulation
Adult	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Obeys Commands

Initial Field GCS - Total

Overview

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

NTDS Core	
Tag Name	EmsTotalGcs
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial Field GCS 40 - Eye

Overview

First recorded Glasgow Coma Score 40 (Eye) measured at the scene of injury.

NTDS Core	
Tag Name	EmsGcs40Eye
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	
	1. None
	2. To Pain
	3. To Sounds
	4. Spontaneous
	0. Not Testable
Adult	1. None
	2. To Pressure
	3. To Sounds
	4. Spontaneous
	0. Not Testable

Initial Field GCS 40 - Verbal

Overview

First recorded Glasgow Coma Score 40 (Verbal) measured at the scene of injury.

NTDS Core	
Tag Name	EmsGcs40Verbal
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	1. None
	2. Cries
	3. Vocal Sounds
	4. Words
	5. Talks Normally
	0. Not Testable
Adult	1. None
	2. Sounds
	3. Words
	4. Confused
	5. Oriented
	0. Not Testable

Initial Field GCS 40 - Motor

Overview

First recorded Glasgow Coma Score 40 (Motor) measured at the scene of injury.

NTDS Core	
Tag Name	EmsGcs40Motor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	1. None
	2. Extension to Pain
	3. Flexion to Pain
	4. Localizes Pain
	5. Obeys Commands
	0. Not Testable
Adult	1. None
	2. Extension
	3. Abnormal Flexion
	4. Normal Flexion
	5. Localizing
	6. Obeys Commands
	0. Not Testable

Inter-Facility Transfer

Overview

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

NTDS Core	
Tag Name	InterFacilityTransfer
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Yes
	2. No

Trauma Center Criteria

Overview

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

NTDS Core	
Tag Name	TraumaCenterCriterion
Data Type	integer
Tag Group	TraumaCenterCriteria (up to 11 times)
Tag Usage	Mandatory

Field Values	
	1. Glasgow Coma Score <= 13
	2. Systolic Blood Pressure < 90 mmHg
	3. Respiratory Rate < 10 or > 29 Breaths per Minute (< 20 in Infants Aged < 1 Year) or Need for Ventilatory Support
	4. All Penetrating Injuries to Head, Neck, Torso and Extremities Proximal to Elbow or Knee
	5. Chest Wall Instability or Deformity (E.g. Flail Chest)

6. Two or More Proximal Long Bone Fractures
7. Crushed, Degloved, Mangled, or Pulseless Extremity
8. Amputation Proximal to Wrist or Ankle
9. Pelvic Fracture
10. Open or Depressed Skull Fracture
11. Paralysis

Vehicular, Pedestrian, Other Risk Injury

Overview

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

NTDS Core	
Tag Name	VehicularPedestrianOther
Data Type	integer
Tag Group	VehicularPedestrianOthers (up to 14 times)
Tag Usage	Mandatory

Field Values	
	1. Fall Adults: > 20 ft. (One Story is Equal to 10 ft.)
	2. Fall Children: > 10 ft. or 2-3 Times the Height of the Child
	3. Crash Intrusion, Including Roof: > 12 in. Occupant Site; > 18 in. Any Site
	4. Crash Ejection (Partial or Complete) from Automobile
	5. Crash Death in Same Passenger Compartment
	6. Crash Vehicle Telemetry Data (AACN) Consistent with High Risk Injury

7. Auto v. Pedestrian/Bicyclist Thrown, Run Over, or > 20 mph Impact
8. Motorcycle Crash > 20 mph
9. For Adults > 65; SBP < 110
10. Patients on Anticoagulants and Bleeding Disorders
11. Pregnancy > 20 weeks
12. EMS Provider Judgment
13. Burns
14. Burns with Trauma

Prehospital Cardiac Arrest

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

NTDS Core	
Tag Name	PrehospitalCardiacArrest
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Yes
	2. No

ED / Hospital Arrival Date

Overview

The date the patient arrived to the ED/hospital.

NTDS Core	
Tag Name	HospitalArrivalDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

ED / Hospital Arrival Time

Overview

The time the patient arrived to the ED/hospital.

NTDS Core	
Tag Name	HospitalArrivalTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Systolic Blood Pressure

Overview

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

NTDS Core	
Tag Name	Sbp
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Pulse Rate

Overview

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

NTDS Core	
Tag Name	PulseRate
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Temperature

Overview

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

NTDS Core	
Tag Name	Temperature
Data Type	decimal
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Respiratory Rate

Overview

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

NTDS Core	
Tag Name	RespiratoryRate
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Respiratory Assistance

Overview

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

NTDS Core	
Tag Name	RespiratoryAssistance
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Unassisted Respiratory Rate
	2. Assisted Respiratory Rate

Initial ED / Hospital Oxygen Saturation

Overview

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

NTDS Core	
Tag Name	PulseOximetry
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Supplemental Oxygen

Overview

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

NTDS Core	
Tag Name	SupplementalOxygen
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. No Supplemental Oxygen
	2. Supplemental Oxygen

Initial ED / Hospital GCS - Eye

Overview

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

NTDS Core	
Tag Name	GcsEye
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. No Eye Movement When Assessed
	2. Open Eyes in Response to Painful Stimulation
	3. Opens Eyes in Response to Verbal Stimulation
	4. Opens Eyes Spontaneously

Initial ED / Hospital GCS - Verbal

Overview

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

NTDS Core	
Tag Name	GcsVerbal
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric (<= 2 years)	1. No Vocal Response
	2. Inconsolable, Agitated
	3. Inconsistently Consolable, Moaning
	4. Cries but is Consolable, Inappropriate Interactions
	5. Smiles, Oriented to Sounds, Follows Objects, Interacts
Adult	1. No Verbal Response
	2. Incomprehensible Sounds
	3. Inappropriate Words
	4. Confused
	5. Oriented

Initial ED / Hospital GCS - Motor

Overview

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

NTDS Core	
Tag Name	GcsMotor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric (<= 2 years)	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Appropriate Response to Stimulation
Adult	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Obeys Commands

Initial ED / Hospital GCS - Total

Overview

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

NTDS Core	
Tag Name	TotalGcs
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital GCS Assessment Qualifiers

Overview

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

NTDS Core	
Tag Name	GcsQualifier
Data Type	integer
Tag Group	GcsQualifiers (up to 3 times)
Tag Usage	Mandatory

Field Values	1. Patient Chemically Sedated or Paralyzed
	2. Obstruction to the Patient's Eye
	3. Patient Intubated
	4. Valid GCS: Patient Not Sedated, Not Intubated, and Did Not Have Obstruction to Eye

Initial ED / Hospital GCS 40 - Eye

Overview
First recorded Glasgow Coma Score 40 (Eye) in the ED/hospital within 30 minutes or less of ED/hospital arrival.

NTDS Core	
Tag Name	Gcs40Eye
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	
	1. None
	2. To Pain
	3. To Sounds
	4. Spontaneous
	0. Not Testable
Adult	1. None
	2. To Pressure
	3. To Sounds
	4. Spontaneous
	0. Not Testable

Initial ED / Hospital GCS 40 - Verbal

Overview

First recorded Glasgow Coma Score at 40 (Verbal Response) within 30 minutes or less of ED/hospital arrival.

NTDS Core	
Tag Name	Gcs40Verbal
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	1. None
	2. Cries
	3. Vocal Sounds
	4. Words
	5. Talks Normally
	0. Not Testable
Adult	1. None
	2. Sounds
	3. Words
	4. Confused
	5. Oriented
	0. Not Testable

Initial ED / Hospital GCS 40 - Motor

Overview

First recorded Glasgow Coma Score at 40 (Best Motor Response) within 30 minutes or less of ED/hospital arrival.

NTDS Core	
Tag Name	Gcs40Motor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values Pediatric < 5 years	
Field Values Pediatric < 5 years	1. None
	2. Extension to Pain
	3. Flexion to Pain
	4. Localizes Pain
	5. Obeys Commands
	0. Not Testable
Adult	1. None
	2. Extension
	3. Abnormal Flexion
	4. Normal Flexion
	5. Localizing
	6. Obeys Commands
	0. Not Testable

Initial ED / Hospital Height

Overview

First recorded height upon ED/hospital arrival.

ITDX Extension	
Extension Rationale	To allow patient's height to be collected regardless of the time it was collected.
Tag Name	Height
Data Type	decimal
Tag Group	ItdxRecord
Tag Usage	Mandatory

Initial ED / Hospital Weight

Overview

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

ITDX Extension	
Extension Rationale	To allow patient's weight to be collected regardless of the time it was collected.
Tag Name	Weight
Data Type	decimal
Tag Group	ItdxRecord
Tag Usage	Mandatory

Drug Screen

Overview

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

NTDS Core	
Tag Name	DrugScreen
Data Type	integer
Tag Group	DrugScreens (up to 15 times)
Tag Usage	Mandatory

Field Values	
	1. AMP (Amphetamine)
	2. BAR (Barbiturate)
	3. BZO (Benzodiazepines)
	4. COC (Cocaine)
	5. mAMP (Methamphetamine)
	6. MDMA (Ecstasy)
	7. MTD (Methadone)

8. OPI (Opioid)
9. OXY (Oxycodone)
10. PCP (Phencyclidine)
11. TCA (Tricyclic Antidepressant)
12. THC (Cannabinoid)
13. Other
14. None
15. Not Tested

Alcohol Screen

Overview

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

NTDS Core	
Tag Name	AlcoholScreen
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Yes
	2. No

Alcohol Screen Results

Overview

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

NTDS Core	
Tag Name	AlcoholScreenResult
Data Type	decimal
Tag Group	ItdxRecord
Tag Usage	Mandatory

ED Discharge Disposition

Overview

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

NTDS Core	
Tag Name	EDDischargeDisposition
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	1. Floor Bed (General Admission, Non-Specialty Unit Bed)
	2. Observation Unit (Unit That Provides < 24 Hour Stays)
	3. Telemetry/Step-Down Unit (Less Acuity than ICU)
	4. Home with Services
	5. Deceased/Expired
	6. Other (Jail, Institutional Care, Mental Health, Etc.)
	7. Operating Room
	8. Intensive Care Unit (ICU)

9. Home Without Services

10. Left Against Medical Advice

11. Transferred to Another Hospital

Trauma Team Involvement

Overview

Indicates if the trauma team was activated at any level including a trauma consult. The goal is to identify if a member of the trauma team was involved in the care of the patient in any capacity.

ITDX Extension	
Extension Rationale	This is a helper field which may be used in determining inclusion criteria for the patient record.
Tag Name	TraumaTeamInvolvement
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Signs of Life

Overview

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

ITDX Extension	
Extension Rationale	While this data element is no longer collected nationally, for continuity of data collection, this field can optionally still be collected.
Tag Name	DeathInED
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Arrived with NO Signs of Life
	2. Arrived with Signs of Life

ED Discharge Orders Written Date

Overview

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

NTDS Core	
Tag Name	EDDischargeOrdersWrittenDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

ED Discharge Orders Written Time

Overview

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

NTDS Core	
Tag Name	EDDischargeOrdersWrittenTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

ED Discharge Physical Date

Overview

The date the patient was physically discharged from the ED.

ITDX Extension	
Extension Rationale	Allows collection of both physical/actual ED discharge date to support computation of the actual length of stay (LOS) for continuity and analytic purposes. This data is still collected by many collaborative trauma registry systems.
Tag Name	EDDischargePhysicalDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

ED Discharge Physical Time

Overview

The time the patient was physically discharged from the ED.

ITDX Extension	
Extension Rationale	Allows collection of both physical/actual ED discharge time to support computation of the actual length of stay (LOS) for continuity and analytic purposes. This data is still collected by many collaborative trauma registry systems.
Tag Name	EDDischargePhysicalTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

ICD-10 Hospital Procedures

Overview

Operative and selected non-operative procedures conducted during hospital stay. Operative and selected non-operative procedures are those that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or complications.

NTDS Core	
Tag Name	HospitalProcedureICD10
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Procedure Start Date

Overview

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

NTDS Core	
Tag Name	HospitalProcedureStartDate
Data Type	date
Tag Group	HospitalProcedures (up to 200 times)
Tag Usage	Mandatory

Hospital Procedure Start Time

Overview

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

NTDS Core	
Tag Name	HospitalProcedureStartTime
Data Type	time
Tag Group	HospitalProcedures (up to 200 times)
Tag Usage	Mandatory

ITDX Data Element Details – Diagnosis Information

Comorbid Conditions

Overview

Pre-existing comorbid factors.

NTDS Core	
Tag Name	ComorbidCondition
Data Type	integer
Tag Group	ComorbidConditions (up to 27 times)
Tag Usage	Mandatory

Field Values	1. Other
	2. Alcohol Use Disorder
	4. Bleeding Disorder
	5. Currently Receiving Chemotherapy for Cancer
	6. Congenital Anomalies
	7. Congestive Heart Failure
	8. Current Smoker
	9. Chronic Renal Failure
	10. Cerebrovascular Accident (CVA)

11. Diabetes Mellitus
12. Disseminated Cancer
13. Advanced Directive Limiting Care
15. Functionally Dependent Health Status
19. Hypertension
23. Chronic Obstructive Pulmonary Disease (COPD)
24. Steroid Use
25. Cirrhosis
26. Dementia
30. Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)
31. Anticoagulant Therapy
32. Angina Pectoris
33. Mental/Personality Disorder
34. Myocardial Infarction (MI)
35. Peripheral Arterial Disease (PAD)
36. Substance Use Disorder
37. Prematurity
38. Pregnancy

ICD-10 Injury Diagnoses

Overview

Diagnoses related to all identified injuries.

NTDS Core	
Tag Name	DiagnosisICD10
Data Type	string
Tag Group	ItdxRecord (up to 50 times)
Tag Usage	Mandatory

AIS Predot Code

Overview

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

NTDS Core	
Tag Name	AisPredot
Data Type	string
Tag Group	AisCodes (up to 50 times)
Tag Usage	Mandatory

AIS Severity

Overview

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

NTDS Core	
Tag Name	AisSeverity
Data Type	integer
Tag Group	AisCodes (up to 50 times)
Tag Usage	Mandatory

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

ISS Body Region

Overview

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

ITDX Extension	
Extension Rationale	This field existed in the previous iterations of NTDS and has been removed in current versions, but for continuity and data trending purposes, it is still collected by ITDX. This data is still collected by many collaborative trauma registry systems.
Tag Name	IssRegion
Data Type	integer
Tag Group	AisCodes (up to 50 times)
Tag Usage	Mandatory

Field Values	1. Head or Neck
	2. Face
	3. Chest
	4. Abdominal or Pelvic Contents
	5. Extremities or Pelvic Girdle
	6. External

AIS Version

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

NTDS Core	
Tag Name	AisVersion
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	6. AIS 05, Update 08
	16. AIS 2015

Locally Calculated ISS

Overview

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

ITDX Extension	
Extension Rationale	This field existed in the previous iterations of NTDS and has been removed in current versions, but for continuity and data trending purposes, it is still collected by ITDX. This data is still collected by many collaborative trauma registry systems.
Tag Name	IssCalculated
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

ITDX Data Element Details – Outcome Information

Total ICU Length of Stay

Overview

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

NTDS Core	
Tag Name	TotalIcuLos
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Total Ventilator Days

Overview

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

NTDS Core	
Tag Name	TotalVentDays
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Discharge Orders Written Date

Overview

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

NTDS Core	
Tag Name	HospitalDischargeOrdersWrittenDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Discharge Orders Written Time

Overview

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

NTDS Core	
Tag Name	HospitalDischargeOrdersWrittenTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Physical Discharge Date

Overview

The date the patient was physically discharged from the hospital.

ITDX Extension	
Extension Rationale	Allows collection of both physical/actual hospital discharge date to support computation of the actual length of stay (LOS) for continuity and analytic purposes. This data is still collected by many collaborative trauma registry systems.
Tag Name	HospitalPhysicalDischargeDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Physical Discharge Time

Overview

The time the patient was physically discharged from the hospital.

ITDX Extension	
Extension Rationale	Allows collection of both physical/actual hospital discharge time to support computation of the actual length of stay (LOS) for continuity and analytic purposes. This data is still collected by many collaborative trauma registry systems.
Tag Name	HospitalPhysicalDischargeTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Mandatory

Hospital Discharge Disposition

Overview

The disposition of the patient when discharged from the hospital.

NTDS Core	
Tag Name	HospitalDischargeDisposition
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Discharged/Transferred to a Short-Term General Hospital for Inpatient Care
	2. Discharged/Transferred to an Intermediate Care Facility (ICF)
	3. Discharged/Transferred to Home Under Care of Organized Home Health Service
	4. Left Against Medical Advice or Discontinued Care
	5. Deceased/Expired
	6. Discharged to Home or Self-Care (Routine Discharge)
	7. Discharged/Transferred to Skilled Nursing Facility (SNF)

8. Discharged/Transferred to Hospice Care
10. Discharged/Transferred to Court/Law Enforcement
11. Discharged/Transferred to Inpatient Rehab or Designated Unit
12. Discharged/Transferred to Long Term Care Hospital (LTCH)
13. Discharged/Transferred to a Psychiatric Hospital or Psychiatric Distinct Part Unit of a Hospital
14. Discharged/Transferred to Another Type of Institution Not Defined Elsewhere

ITDX Data Element Details – Financial Information

Primary Method of Payment

Overview

Primary source of payment for hospital care.

NTDS Core	
Tag Name	PrimaryMethodPayment
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Mandatory

Field Values	
	1. Medicaid
	2. Not Billed (For Any Reason)
	3. Self-Pay
	4. Private/Commercial Insurance
	6. Medicare
	7. Other Government
	10. Other

ITDX Data Element Details – Hospital Complications

Hospital Events

Overview

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

NTDS Core	
Tag Name	HospitalComplication
Data Type	integer
Tag Group	HospitalComplications (up to 22 times)
Tag Usage	Mandatory

Field Values	1. Other
	4. Acute Kidney Injury
	5. Acute Respiratory Distress Syndrome (ARDS)
	8. Cardiac Arrest with CPR
	12. Deep Surgical Site Infection
	14. Deep Vein Thrombosis (DVT)
	15. Extremity Compartment Syndrome
	18. Myocardial Infarction
	19. Organ/Space Surgical Site Infection

21. Pulmonary Embolism
22. Stroke / CVA
25. Unplanned Intubation
29. Osteomyelitis
31. Unplanned Admission to the ICU
32. Severe Sepsis
33. Catheter-Associated Urinary Tract Infection (CAUTI)
34. Central Line-Associated Bloodstream Infection (CLABSI)
35. Ventilator-Associated Pneumonia (VAP)
36. Alcohol Withdrawal Syndrome
37. Pressure Ulcer
38. Superficial Incisional Surgical Site Infection
39. Delirium
40. Unplanned Visit to the Operating Room

ITDX Data Element Details – Trauma Quality Improvement Program Measures for Processes of Care

Highest GCS Total

Overview

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

NTDS Core	
Tag Name	TbiHighestTotalGcs
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Highest GCS Motor

Overview

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

NTDS Core	
Tag Name	TbiGcsMotor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values Pediatric (<= 2 years)	
	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Appropriate Response to Stimulation
Adult	1. No Motor Response
	2. Extension to Pain
	3. Flexion to Pain
	4. Withdrawal from Pain
	5. Localizing Pain
	6. Obeys Commands

GCS Assessment Qualifier Component of Highest GCS Total

Overview

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

NTDS Core	
Tag Name	TbiGcsQualifier
Data Type	integer
Tag Group	TbiGcsQualifiers (up to 3 times)
Tag Usage	Optional

Field Values	
	1. Patient Chemically Sedated or Paralyzed
	2. Obstruction to the Patient's Eye
	3. Patient Intubated
	4. Valid GCS: Patient Was Not Sedated, Not Intubated, and Did Not Have Obstruction to the Eye

Highest GCS 40 - Motor

Overview

Highest GCS 40 motor on calendar day after ED/Hospital arrival.

NTDS Core	
Tag Name	TbiGcs40Motor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values Pediatric < 5 years	
Field Values Pediatric < 5 years	1. None
	2. Extension to Pain
	3. Flexion to Pain
	4. Localizes Pain
	5. Obeys commands
	0. Not Testable
Adult	1. None
	2. Extension
	3. Abnormal flexion
	4. Normal flexion
	5. Localizing
	6. Obeys commands
	0. Not Testable

Initial ED / Hospital Pupillary Response

Overview

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

NTDS Core	
Tag Name	TbiPupillaryResponse
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Both Reactive
	2. One Reactive
	3. Neither Reactive

Midline Shift

Overview

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

NTDS Core	
Tag Name	TbiMidlineShift
Data Type	Integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No
	3. Not Imaged (E.g. CT Scan, MRI)

Cerebral Monitor

Overview

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

NTDS Core	
Tag Name	TbiCerebralMonitor
Data Type	integer
Tag Group	TbiCerebralMonitors (up to 4 times)
Tag Usage	Optional

Field Values	1. Intraventricular Drain/Catheter (E.g. Ventriculostomy, External Ventricular Drain)
	2. Intraparenchymal Pressure Monitor (E.g. Camino Bolt, Subarachnoid Bolt, Intraparenchymal Catheter)
	3. Intraparenchymal Oxygen Monitor (E.g. Licox)
	4. Jugular Venous Bulb
	5. None

Cerebral Monitor Date

Overview

Date of first cerebral monitor placement.

NTDS Core	
Tag Name	TbiCerebralMonitorDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Cerebral Monitor Time

Overview

Time of first cerebral monitor placement.

NTDS Core	
Tag Name	TbiCerebralMonitorTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

Venous Thromboembolism Prophylaxis Type

Overview

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

NTDS Core	
Tag Name	VteProphylaxisType
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	5. None
	6. LMWH (Dalteparin, Enoxaparin, Etc.)
	7. Direct Thrombin Inhibitor (Dabigatran, Etc.)
	8. Xa Inhibitor (Rivaroxaban, Etc.)
	10. Other
	11. Unfractionated Heparin (UH)

Venous Thromboembolism Prophylaxis Date

Overview

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

NTDS Core	
Tag Name	VteProphylaxisDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Venous Thromboembolism Prophylaxis Time

Overview

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

NTDS Core	
Tag Name	VteProphylaxisTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

Packed Red Blood Cells (4 Hours)

Overview

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

NTDS Core	
Tag Name	TransfusionBlood4Hours
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Whole Blood (4 Hours)

Overview

Refers to amount of transfused whole blood (CCs [mLs]) within first 4 hours after arrival to your hospital.

NTDS Core	
Tag Name	WholeBlood4Hours
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Transfusion Plasma (4 Hours)

Overview

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

NTDS Core	
Tag Name	TransfusionPlasma4Hours
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Transfusion Platelets (4 Hours)

Overview

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

NTDS Core	
Tag Name	TransfusionPlatelets4Hours
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Cryoprecipitate (4 Hours)

Overview

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

NTDS Core	
Tag Name	Cryoprecipitate4Hours
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Lowest ED / Hospital Systolic Blood Pressure

Overview

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

NTDS Core	
Tag Name	LowestSbp
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Angiography

Overview

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

NTDS Core	
Tag Name	Angiography
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	
	1. None
	2. Angiogram Only
	3. Angiogram with Embolization
	4. Angiogram with Stenting

Embolization Site

Overview

Organ / site of embolization for hemorrhage control.

NTDS Core	
Tag Name	EmbolizationSite
Data Type	integer
Tag Group	EmbolizationSites (up to 7 times)
Tag Usage	Optional

Field Values	
	1. Liver
	2. Spleen
	3. Kidneys
	4. Pelvic (Iliac, Gluteal, Obturator)
	5. Retroperitoneum (Lumbar, Sacral)
	6. Peripheral Vascular (Neck, Extremities)
	8. Other

Angiography Date

Overview

Date the first angiogram with or without embolization was performed.

NTDS Core	
Tag Name	AngiographyDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Angiography Time

Overview

Time the first angiogram with or without embolization was performed.

NTDS Core	
Tag Name	AngiographyTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

Surgery for Hemorrhage Control Type

Overview

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

NTDS Core	
Tag Name	HemorrhageControlSurgeryType
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	
	1. None
	2. Laparotomy
	3. Thoracotomy
	4. Sternotomy
	5. Extremity
	6. Neck
	7. Mangled Extremity/Traumatic Amputation

8. Other Skin/Soft Tissue (E.g. Scalp Laceration)

9. Extraperitoneal Pelvic Packing

Surgery for Hemorrhage Control Date

Overview

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

NTDS Core	
Tag Name	HemorrhageControlSurgeryDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Surgery for Hemorrhage Control Time

Overview

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

NTDS Core	
Tag Name	HemorrhageControlSurgeryTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

Withdrawal of Life Supporting Treatment

Overview

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

NTDS Core	
Tag Name	WithdrawalOfLifeSupportingTreatment
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Withdrawal of Life Supporting Treatment Date

Overview

The date treatment was withdrawn.

NTDS Core	
Tag Name	WithdrawalOfLifeSupportingTreatmentDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Withdrawal of Life Supporting Treatment Time

Overview

The time treatment was withdrawn.

NTDS Core	
Tag Name	WithdrawalOfLifeSupportingTreatmentTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

Antibiotic Therapy

Overview

Intravenous antibiotic therapy was administered to the patient within 24 hours after first hospital encounter.

NTDS Core	
Tag Name	AntibioticTherapy
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	1. Yes
	2. No

Antibiotic Therapy Date

Overview

The date of first recorded intravenous antibiotic therapy administered to the patient within 24 hours after first hospital encounter.

NTDS Core	
Tag Name	AntibioticTherapyDate
Data Type	date
Tag Group	ItdxRecord
Tag Usage	Optional

Antibiotic Therapy Time

Overview

The time of first recorded intravenous antibiotic therapy administered to the patient within 24 hours after first hospital encounter.

NTDS Core	
Tag Name	AntibioticTherapyTime
Data Type	time
Tag Group	ItdxRecord
Tag Usage	Optional

ITDX Data Element Details – Surgeon Specific Reporting

National Provider Identifier (NPI)

Overview

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

NTDS Core	
Tag Name	NationalProviderIdentifier
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Optional

ITDX Data Element Details – ITDX Record Control Information

Last Modified Date Time

Overview

The date/time that the ITDX source record was last modified in its Trauma Registry.

ITDX Extension	
Extension Rationale	Tracking field to allow for centralized deduplication of submitted records.
Tag Name	LastModifiedDateTime
Data Type	datetime
Tag Group	ItdxRecord
Tag Usage	Mandatory

Patient Identifier

Overview

An identifier in the Trauma Registry that uniquely identifies the record - usually Trauma Number.

ITDX Extension	
Extension Rationale	Tracking field to allow for centralized deduplication of submitted records.
Tag Name	PatientId
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Facility Identifier

Overview

An identifier in the Trauma Registry that uniquely identifies the trauma facility based on the intended recipient of the data; typically, the facility id assigned by the target repository – e.g. NTDB ID for NTDB (TQIP®) submissions or the Trauma Cloud ID for submissions to the ASN Trauma Data Pool™.

ITDX Extension	
Extension Rationale	Tracking field to allow for centralized deduplication of submitted records.
Tag Name	FacilityId
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Mandatory

Record Linkage Type

Overview

The type of record referenced in the linked record; for example, Prehospital.

ITDX Extension	
Extension Rationale	Allows for the association of multiple standardized record linkages to a trauma patient record (such as EMS ePCR linkage, hospital interfacility transfer linkage, EMR linkage, Rehab linkage).
Tag Name	LinkageType
Data Type	integer
Tag Group	RecordLinkages (up to 10 times)
Tag Usage	Optional

Record Linkage State Identifier

Overview

NEMSIS v3 State ID for EMS linkage.

ITDX Extension	
Extension Rationale	Allows for system-wide ID assignments/schemes to be correlated to individual trauma records to support linkages of many types with other state/system registries.
Tag Name	LinkageStateId
Data Type	string
Tag Group	RecordLinkages (up to 10 times)
Tag Usage	Optional

Record Linkage Facility Identifier

Overview

NEMSIS v3 Agency Number for EMS linkage.

ITDX Extension	
Extension Rationale	Identification of the organization ID providing a data source linked to the trauma registry record (e.g. an EMS agency ID or hospital ID number).
Tag Name	LinkageFacilityId
Data Type	string
Tag Group	RecordLinkages (up to 10 times)
Tag Usage	Optional

Record Linkage Record Identifier

Overview

NEMSIS v3 Patient Care Report number for EMS linkage.

ITDX Extension	
Extension Rationale	Allows for the linking of the target record's unique identifier.
Tag Name	LinkageRecordId
Data Type	string
Tag Group	RecordLinkages (up to 10 times)
Tag Usage	Optional

Record Linkage Global Key

Overview

GUID or UUID which represents the document or recording being referenced.

ITDX Extension	
Extension Rationale	To support industry-wide immutable globally unique identifiers (GUIDs) initiatives to help support unambiguous data linkage to other centralized registries from submitted trauma registry records.
Tag Name	LinkageGlobalKey
Data Type	string
Tag Group	RecordLinkages (up to 10 times)
Tag Usage	Optional

Software Vendor

Overview

Name of the software vendor providing the system in which the record was created.

ITDX Extension	
Extension Rationale	To assist central registries in interpreting nuances of data collection variations specific to a given vendor; and to have a way to categorize potential variations across sites that could indicate a product specific mapping or data collection issue in a given source system.
Tag Name	SoftwareVendor
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	0. Other
	1. Clinical Data Management
	2. Digital Innovation
	3. Image Trend
	4. Lancet Technology

Software Product

Overview

Name of the software product in which the record was created.

ITDX Extension	
Extension Rationale	To assist central registries in interpreting nuances of data collection variations specific to a given vendor's product; and to have a way to categorize potential variations across sites that could indicate a product specific mapping or data collection issue in a given source system.
Tag Name	SoftwareProduct
Data Type	integer
Tag Group	ItdxRecord
Tag Usage	Optional

Field Values	
	0. Other Vendor Product
	101. TraumaBase
	102. eTraumaBase
	201. V5
	202. CV4/CVW

Software Version

Overview

Version number of the software product in which the record was created.

ITDX Extension	
Extension Rationale	To assist central registries in interpreting nuances of data collection variations specific to a given vendor's product version; and to have a way to categorize potential variations across sites that could indicate a product specific mapping or data collection issue in a given source system.
Tag Name	SoftwareVersion
Data Type	string
Tag Group	ItdxRecord
Tag Usage	Optional

ITDX Data Element Details – ITDX Explicit Negatives

Explicit Negatives - Element Type

Overview

The element type for which this explicit negative is being defined (e.g. complication, comorbidity).

ITDX Extension	
Extension Rationale	Allows for the unlimited future expansion of the explicit negative innovation for items such as complications, comorbidities, etc. This allows the continued collection of positive only selections to streamline registrar data entry and provide critical continuity for analytics and reporting. This is achieved by allowing a separate explicit negatives list to capture only the rare events of unknown and not applicable selections. This data is stored separately from the affirmative responses. Collecting the information this way avoids having to enter "no" values for items such as comorbidities and complications on every record. The Element Type provides the name of the data point to which the explicit negative fields are associated, such as comorbidity or complications.
Tag Name	ElementKey
Data Type	integer
Tag Group	ExplicitNegatives (up to 50 times)
Tag Usage	Optional

Explicit Negatives - Menu Value

Overview

The menu value for the element defined in the ElementKey.

ITDX Extension	
Extension Rationale	Elements with multiple values, such as comorbidity and complications, need a distinct menu value to which to associate the explicit negative value.
Tag Name	ValueKey
Data Type	integer
Tag Group	ExplicitNegatives (up to 50 times)
Tag Usage	Optional

Explicit Negative

Overview

The explicit menu value for the selected menu value. Usually one of No, N/A or Unknown.

ITDX Extension	
Extension Rationale	This is the explicit negative or null value to the associated element and menu value.
Tag Name	ExplicitNegative
Data Type	integer
Tag Group	ExplicitNegatives (up to 50 times)
Tag Usage	Optional

Field Values	2. No

ITDX Data Element Details – ITDX Explicit Timeliness

Explicit Timeliness - Element Type

Overview

The element type for which this explicit timeliness information is being defined (for example, height and weight).

ITDX Extension	
Extension Rationale	Allows for unlimited ability to associate timeliness and/or specific times to an underlying data point. This allows the underlying data point to be captured irrespective of timeliness, so local and centralized registries can consistently have access to the data regardless of any national rules requiring limited reporting. Allows for continued collection of patients' height/weight regardless of the timeliness and therefore supports analytics and computation of measures such as BMI for all patients in hospital and state registries. The Element Type provides the data point or element group to which the explicit timeliness values are associated, such as height, weight, or initial hospital vitals.
Tag Name	TimelinessKey
Data Type	integer
Tag Group	ExplicitTimeliness (up to 30 times)
Tag Usage	Optional

Field Values	
	1. Height
	2. Weight
	3. Initial Prehospital Vitals
	4. Initial ED Vitals

Explicit Timeliness - Date

Overview

The date the timeliness element was recorded.

ITDX Extension	
Extension Rationale	This is the explicit date associated with the element type data point or group.
Tag Name	EtDate
Data Type	date
Tag Group	ExplicitTimeliness (up to 30 times)
Tag Usage	Optional

Explicit Timeliness - Time

Overview

The time the timeliness element was recorded.

ITDX Extension	
Extension Rationale	This is the explicit time associated with the element type data point or group.
Tag Name	EtTime
Data Type	time
Tag Group	ExplicitTimeliness (up to 30 times)
Tag Usage	Optional

Explicit Timeliness

Overview

The explicit negative value for the selected timeliness element, usually one of: Yes, No, N/A or Unknown.

ITDX Extension	
Extension Rationale	This is the explicit timeliness grade (Yes/No) associated to the element type data point or group. Fields which have a corresponding explicit timeliness field are considered timely unless this field is explicitly answered as "No".
Tag Name	EtTimely
Data Type	integer
Tag Group	ExplicitTimeliness (up to 30 times)
Tag Usage	Optional

Field Values	2. No

Appendix A – Registry Best Practices

Explicit Timeliness

The ITDX data standard does not require the use of the explicit timeliness fields; rather, they are designed to allow flexibility around data collection. Vital signs and other questions for which the timeliness questions apply should be considered timely unless the dates/times indicate that the information was not timely or the explicit timeliness fields are answered as "No". For example, if the height and/or weight is provided without any explicit timeliness designation, the value is to be considered timely.

Explicit Negatives

The ITDX data standard does not require the use of the explicit negative fields; rather, they are designed to allow flexibility around data collection. If Comorbidities and Hospital Events are not explicitly selected or answered with an explicit negative of "No" the assumption is that the comorbidity or hospital event did not occur and therefore a "No" will be transmitted. Explicit Negatives can also be used to indicate "Unknown" or "Not Applicable" for any Comorbidity or Hospital Event if needed and when required.

Appendix B – 2019->2020 Change Log

New Data Elements:
- Whole Blood (4 Hours) (NTDS)
- Trauma Team Involvement (ITDX)

Retired Data Elements:
- Transfusion Blood Measurement (NTDS)
- Transfusion Blood Conversion (NTDS)
- Transfusion Plasma Measurement (NTDS)
- Transfusion Plasma Conversion (NTDS)
- Transfusion Platelets Measurement (NTDS)
- Transfusion Platelets Conversion (NTDS)
- Cryoprecipitate Measurement (NTDS)
- Cryoprecipitate Conversion (NTDS)
- Drug Use Indicator (ITDX)
- Alcohol Use Indicator (ITDX)

Other Changes:
- Comorbid Conditions
    - Retired 21. Prematurity (Keep 37. Prematurity)
    - Added 38. Pregnancy
- Hospital Complications
    - Retired 30. Unplanned Return to the OR
    - Added 39. Delirium
    - Added 40. Unplanned Visit to the OR
- Embolization Site
    - Retired 7. Aorta (thoracic or abdominal)

Acknowledgements

We would like to thank all the people involved in developing this protocol and for the efforts that went into producing this data dictionary:

ITDX Workgroup Members:

Sue Auerbach
John Bennett
Leon Bowman
Michelle Brazel
Grant Dittmer
Caroline Israel
John Kutcher
Maggie Pajerowski
Jody Summers
Rob Tewey
Julie Violante

Other Contributors:

Amy Hicks
Wade McAvoy

We'd also like to thank the many additional individuals and organizations who have participated in ITDX workgroup calls.