


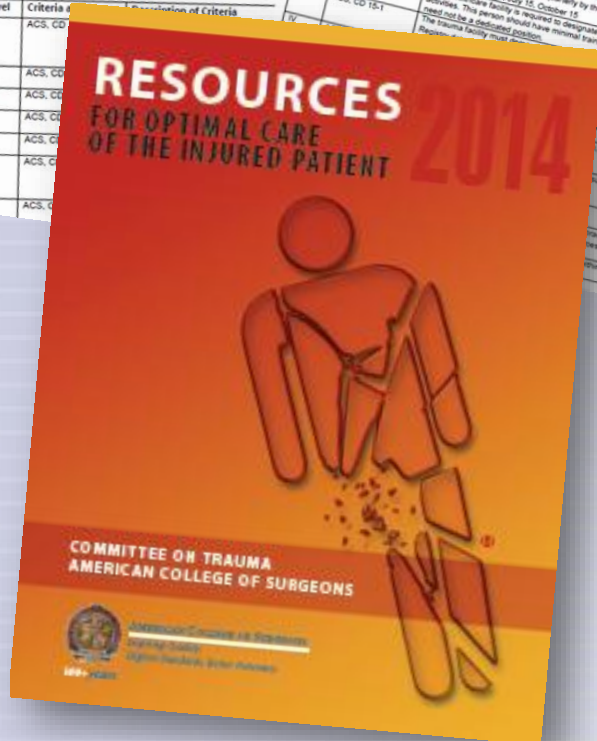
Trauma Registries and Data Management



| Trauma Registry | | |
|-----------------|---------------------|--|
| Level | Criteria and Source | Description of Criteria |
| III | MI, CD 1-1 | All healthcare facilities with an emergency center that participate in data submission. Current data on patients who meet trauma inclusion criteria as defined in the most current version of the American College of Surgeons National Trauma Data Bank, "National Trauma Data Standard: Data Dictionary." |
| III | MI, CD 1-2 | All data which meets inclusion criteria, as defined in the most current version of "National Trauma Data Standard: Data Dictionary", is submitted electronically into the State Trauma Registry (ImageTrend). Twelve months of data must be submitted into the State Trauma Registry prior to applying for designation as a Michigan Trauma Facility for the first time. |
| III | MI, CD 1-3 | To maintain designation as a Michigan Trauma Facility, data is to be submitted electronically into the State Trauma Registry quarterly by the following dates: January 15, April 15, July 15, October 15. |
| III | MI, CD 1-4 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This person can be identified for review. |
| III | ACS, CD 15-1 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This person can be identified for review. |
| III | ACS, CD 15-2 | Finally, these data must be submitted electronically into the State Trauma Registry. |

| Level IV Criteria Quick Reference Guide | | |
|---|---------------------|--|
| Level | Criteria and Source | Description of Criteria |
| IV | MI, CD 1-1 | All healthcare facilities with an emergency center that participate in data submission. Current data on patients who meet trauma inclusion criteria as defined in the most current version of the American College of Surgeons National Trauma Data Bank, "National Trauma Data Standard: Data Dictionary." |
| IV | MI, CD 1-2 | All data which meets inclusion criteria, as defined in the most current version of "National Trauma Data Standard: Data Dictionary", is submitted electronically into the State Trauma Registry (ImageTrend). Twelve months of data must be submitted into the State Trauma Registry prior to applying for designation as a Michigan Trauma Facility for the first time. |
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| IV | ACS, CD 15-1 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This person can be identified for review. |

| Level III Criteria Quick Reference Guide | | |
|--|---------------------|---|
| Level | Criteria and Source | Description of Criteria |
| III | ACS, CD 15-1 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This person can be identified for review. |
| III | ACS, CD 15-2 | Finally, these data must be submitted electronically into the State Trauma Registry. |



Presented by:

Susan Huehl

Allegiance Health, Jackson MI

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Michigan
Trauma
Coalition



Objectives:

Upon completion of this lecture and discussion, participants will be able to:

- **List the components essential to a trauma registry**



Objectives:

Upon completion of this lecture and discussion, participants will be able to:

- List the components essential to a trauma registry
- **Identify the trauma registry population**



Objectives:

Upon completion of this lecture and discussion, participants will be able to:

- List the components essential to a trauma registry
- Identify the trauma registry population
- **Describe various standard coding systems and scoring methodologies as it applies to the trauma population**



Trauma Registry

Definition

A trauma registry is a disease-specific data collection composed of a file of uniform data elements that start from event through the continuum of care at your facility for the injured patient.



Efforts that led the way.....



- Major Trauma Outcome Study
- Chicago EMS leads the way with data collection
- NTDB identifies lack of uniformity of data
- National groups join forces to improve NTDB data
- National Trauma Data Standard



Hospital-based Trauma Registry

- Data are clinically focused
 - Who, what, when, where
- Supports Trauma Performance Improvement and Patient Safety (PIPS)
- Data for Evaluating Outcome Measures

Michigan Trauma Registry

- State Statute, adopted rules October 2, 2009
- All facilities caring for trauma patients must comply with data submission (Level I-IV)
- Data to be used at regional and statewide level to promote performance improvement and patient safety initiatives



Michigan Criteria for Trauma Facility Designation 2014

- A. “All health facilities with an emergency center shall participate in data submission. Administrative Rule 325.133”

- B. “Data is collected on all patients who meet inclusion criteria.....”

Michigan Criteria for Trauma Facility Designation 2014

- C. “All data which meets inclusion criteria as described above is submitted electronically into the State Trauma Registry (ImageTrend®). “ R 325.134

- D. “Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have the minimal training necessary to maintain the registry. This need not be a dedicated position.”



Trauma Registry

| Level | Criteria and Source | Description of Criteria | Type |
|-------|---------------------|--|------|
| III | MI, CD 1-1 | All healthcare facilities with an emergency department shall participate in data submission. | I |
| III | MI, CD 1-2 | All data which meets inclusion criteria of the National Trauma Data Standard: Data Dictionary Registry (ImageTrend). Twelve months of data must be submitted electronically into the State Trauma Registry prior to applying for designation as a Michigan Trauma Facility for the first time. | I |
| III | MI, CD 1-3 | To maintain designation as a Michigan Trauma Facility, data is to be submitted electronically into the State Trauma Registry quarterly by the following dates: January 15, April 15, July 15, October 15. | I |
| III | MI, CD 1-4 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This need not be a dedicated position. | I |
| III | ACS, CD 15-1 | The trauma facility must demonstrate that all trauma patients can be identified for review. Registry data must be collected and analyzed. | I |
| III | ACS, CD 15-2 | The trauma registry is essential to the performance improvement and patient safety (PI) program and must be used to support the PI process. | II |

Level III Criteria Quick Reference Guide

| Level | Criteria and Source | Description of Criteria |
|-------|---------------------|---|
| III | ACS, CD 15-3 | The trauma PI program must be a data collection that consistently supports performance improvement. |
| III | ACS, CD 15-3 | The trauma registry is essential to support the PI process. Furthermore, these findings must be appropriate for local implementation. |
| III | ACS, CD 15-4 | All trauma facilities must use risk stratified benchmarking systems to measure performance and outcomes. |
| III | ACS, CD 15-5 | Trauma registries should be concurrent. At a minimum, 80 percent of cases must be entered within 60 days of discharge. |
| III | ACS, CD 15-6 | The trauma program must ensure that appropriate measures are in place to meet the confidentiality requirements of the data. |
| III | ACS, CD 15-7 | Strategies for monitoring data validity are essential. |
| III | ACS, CD 15-8 | To achieve this goal, a trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidenced-based validated resources. |
| III | ACS, CD 15-9 | All process and outcome measures must be documented within the trauma PI program's written plan and reviewed and updated at least annually. |
| III | ACS, CD 15-10 | One full-time equivalent employee dedicated to the registry and data capturing the NTDS data set for each 500-750 admitted patients is essential. |

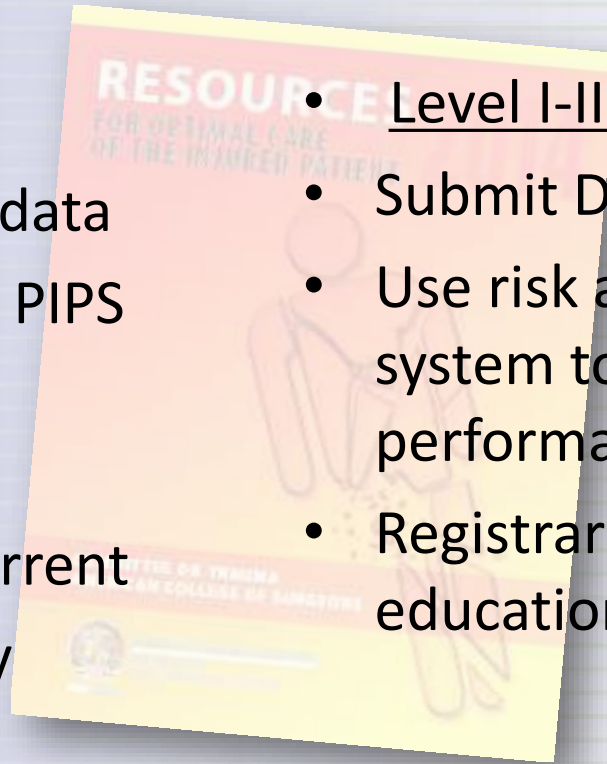
Level IV Criteria Quick Reference Guide

| Level | Criteria and Source | Description of Criteria | Type |
|-------|---------------------|--|------|
| IV | MI, CD 1-1 | All healthcare facilities with an emergency center shall participate in data submission. Submit data on patients who meet trauma inclusion criteria as defined in the most current version of the American College of Surgeons National Trauma Data Bank, "National Trauma Data Standard: Data Dictionary." | I |
| IV | MI, CD 1-2 | All data which meets inclusion criteria, as defined in the most current version of "National Trauma Data Standard: Data Dictionary", is submitted electronically into the State Trauma Registry (ImageTrend). Twelve months of data must be submitted into the State Trauma Registry prior to applying for designation as a Michigan Trauma Facility for the first time. | I |
| IV | MI, CD 1-3 | To maintain designation as a Michigan Trauma Facility, data is to be submitted electronically into the State Trauma Registry quarterly by the following dates: January 15, April 15, July 15, October 15. | I |
| IV | MI, CD 1-4 | Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This need not be a dedicated position. | I |
| IV | ACS, CD 15-1 | The trauma facility must demonstrate that all trauma patients can be identified for review. Registry data must be collected and analyzed. | I |
| IV | ACS, CD 15-3 | The trauma registry is essential to the performance improvement and patient safety (PI) program and must be used to support the PI process. | II |
| IV | ACS, CD 15-5 | All trauma facilities must use a risk stratified benchmarking system to measure performance and outcomes. | II |
| IV | ACS, CD 15-8 | Trauma registries should be concurrent. At a minimum, 80 percent of cases must be entered within 60 days of discharge. | II |
| IV | ACS, CD 15-8 | The trauma program must ensure that appropriate measures are in place to meet the confidentiality requirements of the data. | II |
| IV | ACS, CD 15-10 | Strategies for monitoring data validity are essential. | II |
| IV | ACS, CD 16-4 | To achieve this goal, a trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidenced-based validated resources. | II |
| IV | ACS, CD 16-5 | All process and outcome measures must be documented within the trauma PI program's written plan and reviewed and updated at least annually. | II |



ACS Verification Trauma Registry Requirements

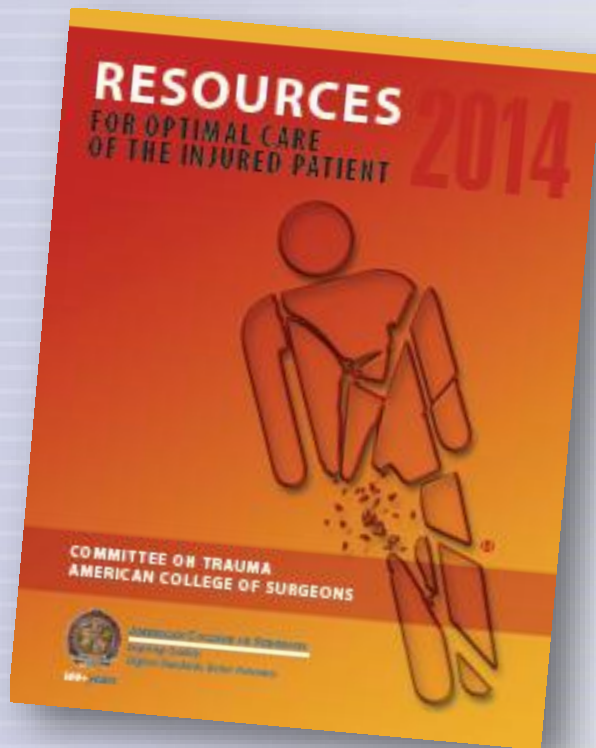
- Level I - IV
 - Collect and analyze data
 - Use data to support PIPS
 - Use data for Injury Prevention efforts
 - Data must be concurrent
 - Meet confidentiality requirements
 - Strategies for monitoring data validity
- Level I-III Specific
 - Submit Data to NTDB
 - Use risk adjusted benchmarking system to measure performance & outcomes
 - Registrar must meet 12 month educational requirements



Resources for the Optimal Care of the Injured Patient

Chapter 15 : Trauma Registry

- Good News – 6 pages,
Pgs. 107-113



Small but Mighty!

Michigan Trauma Coalition



mitrauma.org

Getting Started.....

- Commercial Software
 - Clinical Data Management
 - TraumaBase V9[®]
 - Digital Innovation Inc.
 - V5 Trauma[®]
 - Collector[®]
 - Lancet Technologies
 - TraumaOne[®]
 - Image Trend[®]



- ImageTrend® is the State sponsored software program approved for use as the statewide trauma registry
- ImageTrend® is available to all hospitals as web-based hospital trauma registry software
- Data is entered directly into ImageTrend®
- Data access restricted to your hospital users



National Trauma Data Standard (NTDS) Data Dictionary Download



The screenshot shows a web browser window titled "NTDS - Dataset Dictionary". The page header includes the logo for the National Trauma Data Standard of the National Trauma Data Bank (NTDB), with the tagline "Helping Unify Trauma Registry Data". A navigation menu contains links for Home, The NTDS, NTDB Participants, Software Vendors, Data Elements, Reference Materials, The Partners, and Contact Us. The main content area is titled "Dataset Dictionary" and "NTDS 2015 Admissions Data Dictionary". It provides information about the 2013 Admissions Data Dictionary, stating it offers over 50 definitions for implementation in trauma registry systems. It also defines national data elements and provides download instructions for Windows and Mac users. A bullet point at the bottom indicates a PDF update from 3/9/15 that added hyperlinks for complications and comorbidities. An image of an open book is positioned to the right of the text.

NTDS - Dataset Dictionary

NATIONAL TRAUMA DATA STANDARD
of the **NTDB**[®] *Helping Unify Trauma Registry Data*
NATIONAL TRAUMA DATA BANK

Home The NTDS NTDB Participants Software Vendors Data Elements Reference Materials The Partners Contact Us

Home > Data Elements > Dataset Dictionary

Dataset Dictionary 29 Mar 2015

NTDS 2015 Admissions Data Dictionary

The NTDS 2013 Admissions Data Dictionary provides **over 50 definitions** that can be implemented by a trauma registry system.

National data elements are defined that should be collected for the National Trauma Database, but additional data elements should be considered for use at the state and hospital levels depending on each state or local hospital's needs.

Download Instructions:

Windows: Simply right click on the links below and choose "save target as..." from the drop down menu.

Mac: Simply "control-click" on the links below and choose "download link to disk" from the drop down menu.

- [Download the NTDS 2015 Admissions Data Dictionary \(PDF\)](#) *Update (3/9/15) added hyperlinks for the complications and comorbidities.*

Dictionary Contents

www.ntdsdictionary.org

Michigan Trauma Coalition



mitrauma.org

ACS Inclusion Criteria

“Exact inclusion and exclusion criteria used to select patients for entry into a trauma registry vary across hospitals.”

Chapter 15, page 107

National Trauma Data Standard

Patient Inclusion Criteria

Definition:

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

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

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM):

800–959.9

Michigan Trauma Coalition



mitrauma.org

Excluding the following isolated injuries:

ICD-9-CM

905–909.9 (late effects of injury)

910–924.9 (superficial injuries, including blisters, contusions, abrasions, and insect bites)

930–939.9 (foreign bodies)

**AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO
(ICD-9-CM 800–959.9):**

- Hospital admission as defined by your trauma registry inclusion criteria;

OR

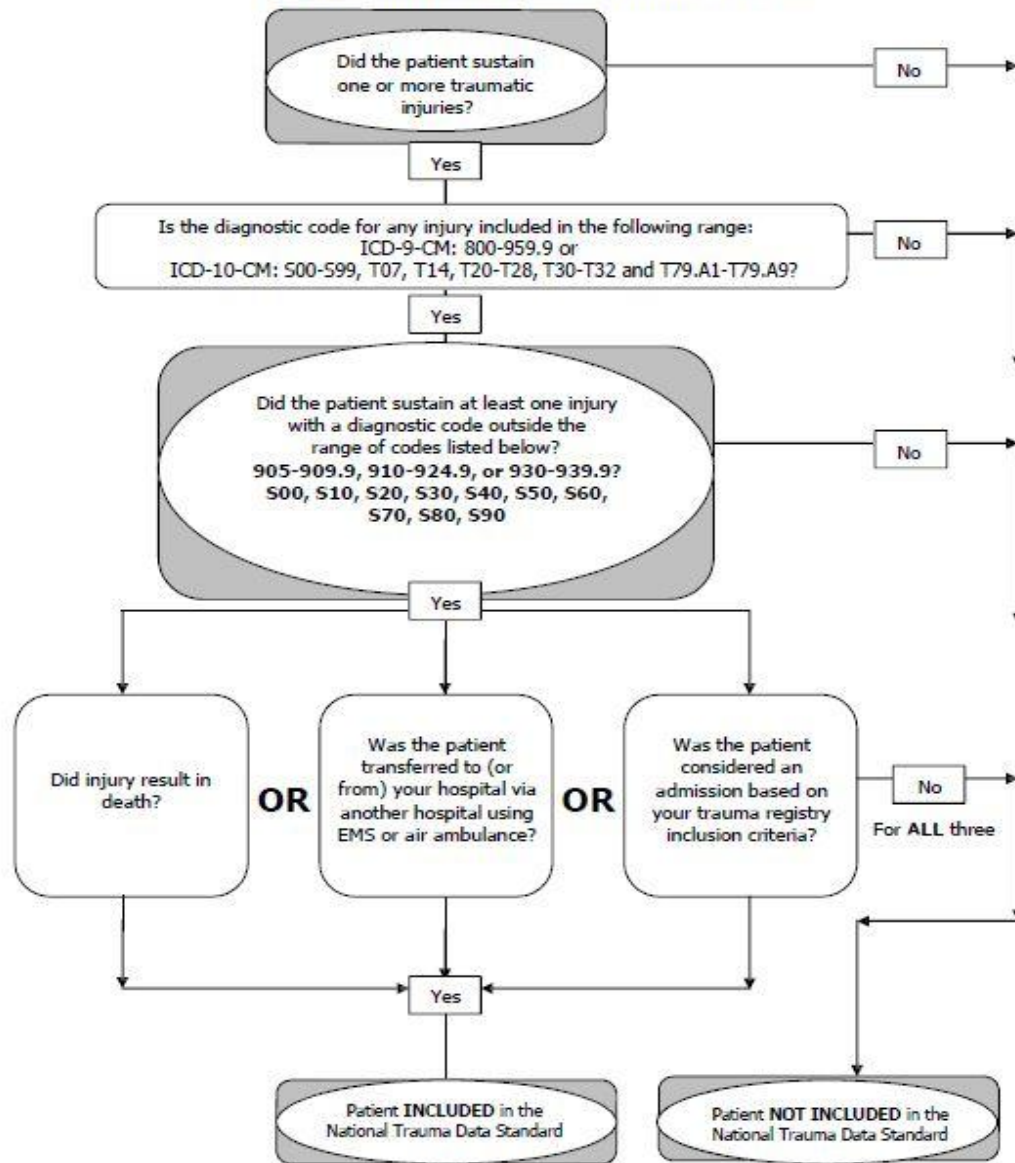
- Patient transfer via EMS transport (including air ambulance) from one hospital to another hospital;

OR

- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)



National Trauma Data Standard Inclusion Criteria



National Trauma Data Standard

Patient Inclusion Criteria

Definition:

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

Traumatic event is defined as injury caused by a mechanism or external factor that caused the event. The external cause code should describe the main reason a patient is admitted to the hospital.

NTDS Data Dictionary 2015, pg. 20 of 149



Excluding the following **isolated injuries**:

ICD-9-CM:

If the patient was admitted and this were the only injury identified, the patient would be excluded.

905–909.9 (late effects of injury)

910–924.9 (superficial injuries, including blisters, contusions, abrasions, and insect bites)

930–939.9 (foreign bodies)

**AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO
(ICD-9-CM 800–959.9):**

- Hospital admission as defined by **your** trauma registry **inclusion criteria**;

OR

Pts may be included for other reasons deemed of value by your program.

- Patient **transfer via EMS transport** (including air ambulance) from one hospital to another hospital;

OR

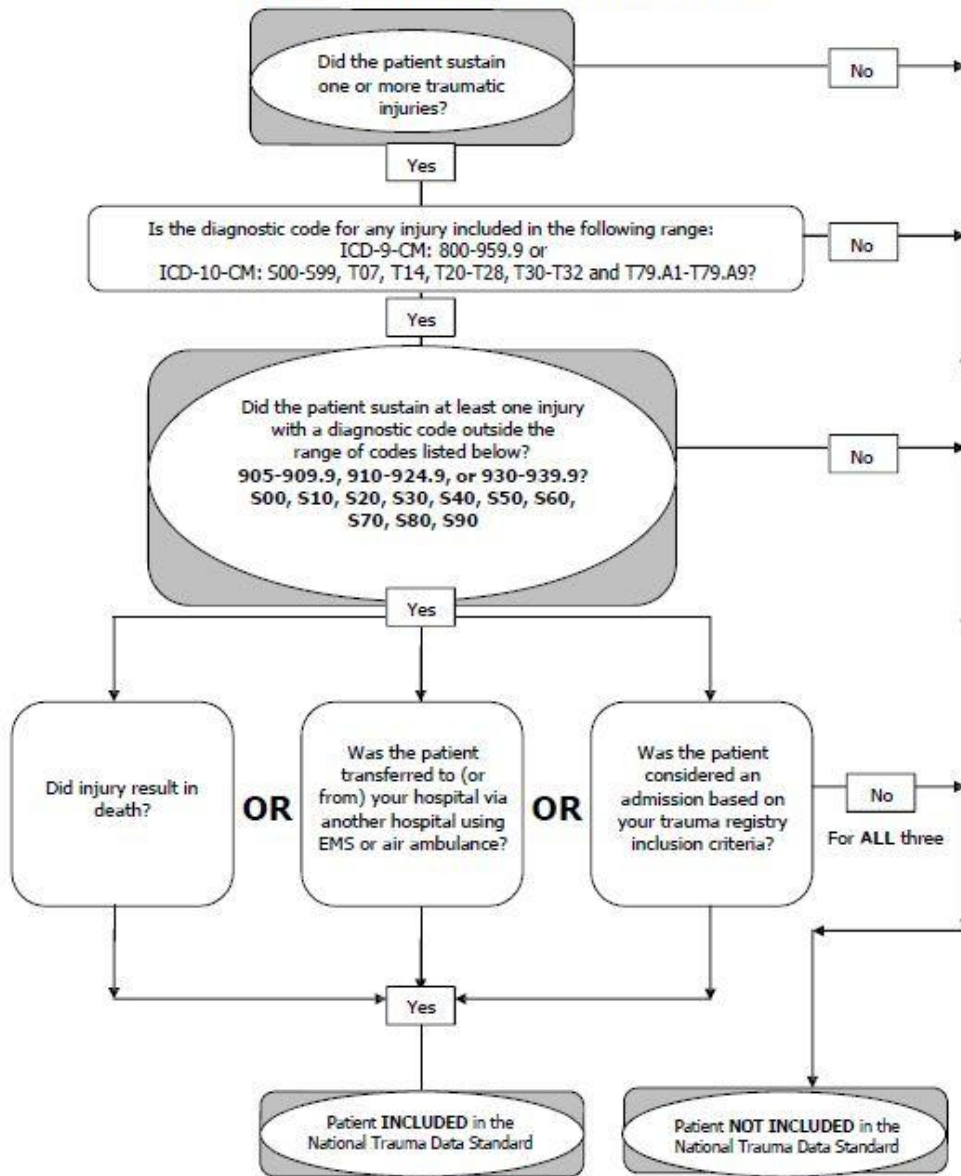
From ED to ED, from ED to OR, from ED to ICU, from inpatient to inpatient unit, in or out.

- **Death** resulting from the traumatic injury (independent of hospital admission or hospital transfer status)

DOA, death in ED, OR, during transport to another facility.



National Trauma Data Standard Inclusion Criteria





National Trauma Data Standard (NTDS) Data Dictionary Download



The screenshot shows a web browser window titled "NTDS - Dataset Dictionary". The page header includes the logo for the National Trauma Data Standard of the NTDB (National Trauma Data Bank), with the tagline "Helping Unify Trauma Registry Data". A red navigation bar contains links for Home, The NTDS, NTDB Participants, Software Vendors, Data Elements, Reference Materials, The Partners, and Contact Us. The main content area is titled "Dataset Dictionary" and features a sub-heading "NTDS 2015 Admissions Data Dictionary". The text describes the dictionary's purpose, mentioning over 50 definitions and national data elements. A photograph of an open book is positioned to the right of the text. Below the text, there are instructions for downloading the dictionary as a PDF, with a note that an update from 3/9/15 added hyperlinks for complications and comorbidities. The page concludes with a "Dictionary Contents" section.

NATIONAL TRAUMA DATA STANDARD
of the **NTDB**[®] *Helping Unify Trauma Registry Data*
NATIONAL TRAUMA DATA BANK

Home | The NTDS | NTDB Participants | Software Vendors | Data Elements | Reference Materials | The Partners | Contact Us

Home > Data Elements > Dataset Dictionary

Dataset Dictionary

2015-2015

NTDS 2015 Admissions Data Dictionary

The NTDS 2013 Admissions Data Dictionary provides **over 50 definitions** that can be implemented by a trauma registry system.

National data elements are defined that should be collected for the National Trauma Database, but additional data elements should be considered for use at the state and hospital levels depending on each state or local hospital's needs.



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- [Download the NTDS 2015 Admissions Data Dictionary \(PDF\)](#) Update (3/9/15) added hyperlinks for the complications and comorbidities.

Dictionary Contents



Trauma Patient Identification

- Query Daily ED Registration Report
- Daily Inpatient Discharge Report
 - Includes inpatient deaths, Inpatient transfers
- Daily Admission Report for Direct Admits
- Hospital Death Report
- Trauma Activation Report

Know Your Data

- Read and know the data definitions for every data item you are collecting
- TPM, Registrar, Abstractor, Data Collector
- Multiple source reference

ICD-9 PLACE OF OCCURRENCE EXTERNAL CAUSE CODE L 08

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

Field Values

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

Additional Information

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

Data Source Hierarchy

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

Associated Edit Checks

| Rule ID | Level | Message |
|---------|-------|---|
| 1801 | 1 | Value is not a valid menu option |
| 1802 | 2 | Field cannot be blank (at least one ICD-9-CM or ICD-10 trauma code must be entered) |

PLACE OF OCCURRENCE (E849)

- E849. Place of Occurrence
 - Note:** The following category is for use to denote the place where the injury or poisoning occurred.
 - E849.0 Home
 - Apartment
 - Boarding house
 - Farm house
 - Home premises
 - House (residential)
 - Noninstitutional place of residence
 - Private:
 - driveway
 - garage
 - garden
 - home
 - walk
 - Swimming pool in private house or garden
 - Yard of home
 - Excludes** *home under construction but not yet occupied (E849.3)*
institutional place of residence (E849.7)



- Demographic
- Injury Event, mechanism, location, intent
- Safety Equipment
- Prehospital Provider Information, Transport



- Referring Hospital Information
- Trauma Activation Data
- Trauma Team Response Data
- Initial Arrival Assessment



- Diagnostic Radiology Studies
- Diagnostic Laboratory results
- ETOH and Drug results
- Studies, Operations, Procedures
- Comorbid Conditions / Risk Data

- Complications
- PI Issues
- Discharge Information
- Payer Source Information
- Death Data

Identify and Code all Injuries

- Trauma Registries use 2 Coding Systems
 - ICD-9-CM – International Classification of Diseases, 9th Revision, Clinical Modification

External Cause Code, Site Location Code

Injury Diagnosis Codes

Procedure & Operation Codes

- 2nd Coding System - **A**bbreviated **I**njury **S**cale[©]
2005, UPDATE 2008, The Association for the
Advancement of Automotive Medicine (AAAM)
- Abbreviated Injury Scale [©] (AIS) is a system used to describe the severity of injuries throughout the body. It's original purpose was to standardize the classification and severity of injuries sustained in automotive crashes. The original AIS was defined in 1971.

“The AIS is anatomically-based, consensus-derived, global severity scoring system that classifies each injury by region according to its relative importance on a 6-point ordinal scale.”

AAAM Abbreviated Injury Scale © 2005 UPDATE 2008, pg. 2.

AIS Scoring

6-Point Ordinal AIS Severity Scale

- 1 Minor
- 2 Moderate
- 3 Serious
- 4 Severe
- 5 Critical
- 6 Maximal
(currently untreatable)

The body is divided into 6 Body Regions

- 1 Head & Neck
- 2 Face
- 3 Chest
- 4 Abdominal /
Pelvic contents
- 5 Extremities /
pelvic girdle
- 6 External



Injury Severity Score (ISS) is the sum of the squares of the 3 highest AIS scores in 3 different regions.

3 AIS scores from 3 different body regions
Square each of the 3
Sum them for the ISS

AIS Injury List

AIS 1 Concussion, no loss of consciousness

AIS 2 Nose fracture, comminuted

AIS 4 Pneumothorax, major

AIS 3 Rib fx, >3 without flail chest, any location

AIS 1 Face, laceration, minor; superficial

AIS Injury List

AIS 1 Concussion, no loss of consciousness

AIS 2 Nose fracture, comminuted

AIS 4 Pneumothorax, major

AIS 3 Rib fx, >3 without flail chest, any location

AIS 1 Face, laceration, minor; superficial

Head 1^2 + Face 2^2 + Chest 4^2 = $1 + 4 + 16 = 21$ **ISS**

- NISS
- New Injury Severity Score
- Patients with multiple injuries severe injuries in one or two body regions received a lower than expected ISS
- More accurate at predicting outcomes than ISS in severe trauma

AIS Injury List

AIS 1 Concussion, no loss of consciousness

AIS 2 Nose fracture, comminuted

AIS 4 Pneumothorax, major

AIS 3 Rib fx, >3 without flail chest, any location

AIS 1 Face, laceration, minor; superficial

Face 2^2 + Chest 4^2 + Chest 3^2 = $4+16+9$ = **29 ISS**



Other models for predicting outcomes:

TRISS – predicts Probability of Survival using a equation consisting of the Trauma Score (vital signs & GCS), ISS, Blunt/Trauma, Age.

$$b = b_0 + b_1 * (TS) + b_2 (ISS) + b_3 *(age)$$

Investing in a Trauma Registrar



Michigan Trauma Coalition



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- Diverse backgrounds: nursing, HIM, computer science, medical informatics, medical background
- 1 FTE 500-750 patient - this is the number of charts that can be expected to be abstracted and entered per year.
- Consider all other tasks related to the registry that will take time away from abstracting and data entry when calculating FTE's needed



ACS Trauma Registrar Educational (Level I-III)

- Must attend within the first 12 months of being hired:

American Trauma Society's Trauma Registrar Course or equivalent provided by a state trauma program

Association of the Advancement of Automotive Medicine's Injury Scaling Course (CD15-7)

Minimum of 8 hours of registry-specific continuing education per year

- Registry must remain in a state of being “Concurrent”. At a minimum 80% of cases must be entered within 60 days of discharge (CD 15-6).
- Many hospitals consider record complete prior to autopsy and PIPS updates.
- Commercial software will report for you your 60 day chart completion rate.

- Make allowances for tracking missing documents and then updating data once they have arrived:

EMS Reports

Autopsy Reports

PIPS documentation

Collecting Data

- Data collection can be completed by a variety of methods
 - Data downloading of demographic and hospital data
 - Abstracts started when the patients are identified
 - Must review after discharge when all documents have been completed and are available to the EMR for review



- Concurrent chart review allows for timely identification of PI Issues
 - Abstractor Identified
 - Data Identified (time calculated)
 - Report Generated Over - Under Triage Rate
 - Provider Identified Issues
 - Hospital System, Resource, Personnel Issues

Tools of the Trade for the Trauma Registry

Michigan Trauma Coalition



mitrauma.org

Simple Data Validation

- Software Driven
- Completeness of data
- Logical relationships
- Free of data entry errors
- Acceptable default values

Required Data Validation Plan

- Inter-rater Reliability
- Validate the Quality of your Data
- Consistency in abstracting process
- Following NTDS definitions
- Scoring system Level of Error, Error Rate
- Expectation 5 to 10 % re-abstraction of records (CD 15-10)
- Full or partial data collection

Uploading Data

- Increases accuracy of data
- Decreases data entry
- Allows focus on clinical data abstraction
- Validation vs Discovery
- Trauma Registry identifies pts to upload

Data Collection Form

- Accurate and relevant trauma care
- Reflects the flow of your software
- Data Entry Options
- Space for injury descriptions and notes
- No more than 1-2 pages
- Keep it simple!



Dual Monitors

Adequate access to multiple hospital applications

- Registration system
- ED Documentation
- Radiology System
- Lab Results
- EMR
- Physician Dictation



Report Writing

- Standard Reports – Vendor Created
 - Identify PI Issues
 - ED and Hospital Transfers
 - Trauma Deaths
 - General Volume and Activity Reports
 - Physician Response
 - Verification / Designation Reports

Report Writing

- Custom or Ad hoc Report Writing
 - Detailed reports to look at individual patient information by defined filter
 - Date range, diagnosis, mechanism
 - Summary Reports look at the sum of patients within by defined filter
 - Number of admissions in March 2015
 - Disposition of pts from ED

State and National Organizations

- Promote Professionalism of Trauma Registrars
- Provide Educational Opportunities
 - Michigan Trauma Coalition – Mitrauma.org
 - American Trauma Society-www.amtrauma.org
 - AAAM-www.aaam.org