

North Carolina Trauma Registry

Overview: General description of data source

The North Carolina Trauma Registry (NCTR) is a cooperative effort between numerous North Carolina hospitals, including all trauma centers, and the North Carolina Office of Emergency Medical Services (NCOEMS). The NCTR, which has been operational since 1987, collects information on injured patients for the purposes of performance improvement, outcomes measurement, resource utilization, injury prevention, and clinical research.

The purpose of the NCTR is to house data that is collected on all trauma patients, to support trauma-related research, improve the quality of trauma care, and to facilitate trauma system development. NCOEMS and the State Trauma Advisory Committee (STAC) support and encourage researchers to use the NCTR to obtain data for research with the ultimate goal of improving trauma care in North Carolina as well as nationally.

Data owner

NC Department of Health and Human Services; Division of Health Service Regulation; Office of Emergency Medical Services for state registry; each participating hospital or Trauma Center also owns their own data

Data description and collection criteria

Records of all patients who:

- 1) Have an unplanned readmission related to initial injury within 30 days of last discharge date
- 2) Drowning or asphyxiation
- 3) Have a ICD-10-CM diagnosis code in the following range: S00-S99, T07, T14, T20-T28, T30-T32, T71, T79.A1-T79.A and sustained at least one injury outside of the range S00, S10, S20, S30, S40, S50, S60, S70, S80, S90, and one of the following:
 - a. Injury resulted in death
 - b. Patient was transferred to or from your hospital via another ED or hospital using EMS or air ambulance
 - c. Patient was taken to the OR from the ED
 - d. Patient was admitted as an inpatient or observation patient as a result of traumatic injuries

Type of data: source or compiled/abstracted

Compiled/abstracted data

Are the data available to outside parties for analytical purposes?

Yes

Process to obtain the data for research

Information about forms and procedures is available here:

<https://www2.ncdhhs.gov/dhsr/EMS/trauma/traumaregistry.html>. IRB approval is required.

For trauma registries at each institution, IRB approval and approval of the Trauma Medical Director are required.

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Website

<https://www2.ncdhhs.gov/dhsr/EMS/trauma/traumaregistry.html>

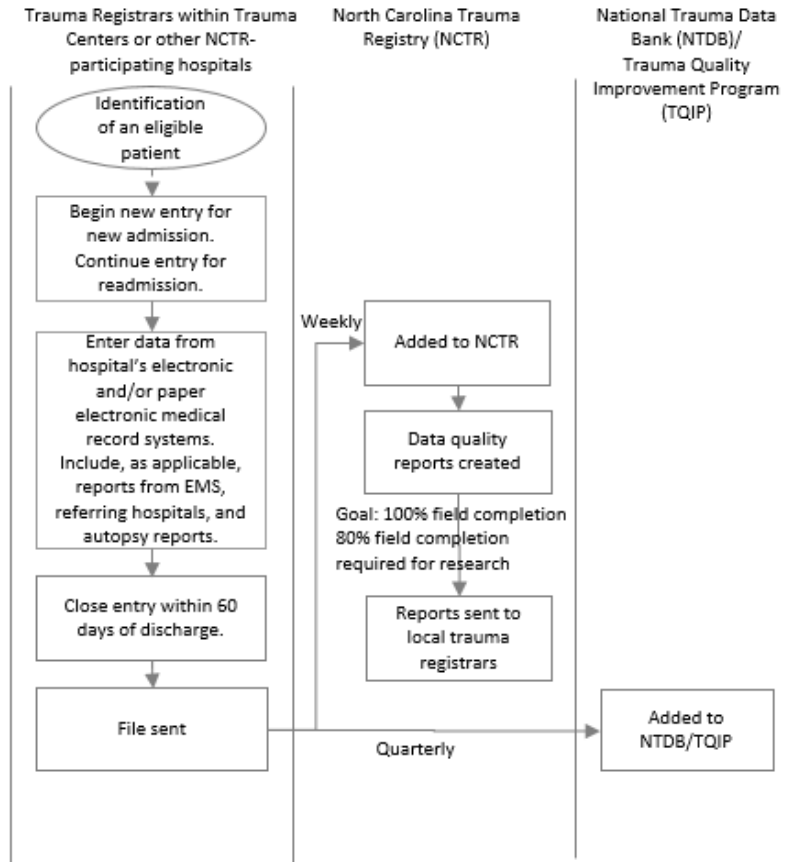
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Data flow



Who enters the original data (Highway patrol officers, healthcare providers, etc.)?

Abstracted by trained trauma registrars from data entered by hospital-based healthcare providers, EMS providers and medical examiners

Injury classification: Injury classification method (ICD-10-CM, etc.)

Trauma registrars are required to capture both ICD-10-CM and Abbreviated Injury Scale (AIS) codes. Some Trauma Registry software will generate either one by the other, but Registrars are required to validate this mapping to ensure that both codes are correct.

Collection timeframe: when the data were entered after original event

Extracted from original data sources so dependent on the timeframes for EMS, hospital and medical examiner data entry. Records must be finalized within 60 days of patient discharge.

Years available: Description of timespan for which data are available

State registry in place since 1987. However, due to major changes in the registry structure by the vendor used by the state and trauma centers, records prior to 2013 would require significant mapping effort to be useful. Records must be finalized within 60 days of patient discharge. Individual trauma registries submit completed records to the state registry weekly.

Data History: Key changes in the data that would affect research use

The vendor used by the state and trauma centers made significant changes to the registry structure in 2013, so records with discharge dates prior to 2013 generally are not available due to the significant mapping effort required

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Is a data dictionary available?

Yes

Dictionary

Current version: NCTR-Data Dictionary-v23Jan2018. Dictionary is updated each January. Current version is available through the NC-OEMS website listed above.

Field Mapping from Source Documentation

Source documentation field map

Report labels	Source labels (where available)
Table or category	Section + Subsection
Field	Variable
Field-Literal	
Description	Definition
Source comments	Summary table, Additional information
Format	
Length	
Required (Y/N)	Summary table: Required by state
Sensitive (Y/N)	Summary table: Available for research
Unique key (Y/N)	
Retired Field (Y/N)	History, Summary table
Retired Date	History, Summary table

Additional fields available in source documentation

- Sent to state
- Required by state
- Version
- Effective Date
- Revised Date

Quality and Performance Measures

Known data quality issues:

- Injury time and zipcode are very difficult to obtain for injuries other than witnessed MVCs.