

Trauma Registry in Montana

Trauma Registry in Montana

The Montana trauma registry is established primarily to ensure quality of care through performance improvement; other objectives are enhanced hospital operations, injury prevention and quantifying research

The trauma registry will help identify issues in patient care, system issues within your facility and activities that can be identified for injury prevention. How good is the charting and documentation from EMS and the facility? All of this can be evaluated using the trauma registry.

Trauma Registry in Montana

Why are we here?

The collection and use of data is of paramount importance to a successful trauma program

It is involved in local, statewide and national data banks

“Data talks, anecdotes walk” is really the theme of any evidence-based system. Without data to analyze, trend and identify issues, we have no evidentiary base for our program activities, much less a method for determining true improvement. It is no longer adequate to describe “what we believe went wrong” or “how we think things are”, we need a system to collect the data that can illustrate it.

Trauma Registry in Montana

"Rule XIV, Trauma Registries and Data Reporting (1) For the purpose of improving the quality of trauma care, all Montana health care facilities, as defined in 50-6-401, MCA, must participate in the state trauma register by collecting and reporting to the department the data within 60 days after the end of each quarter, each health care facility that provided service or care to trauma patients within Montana must submit to the department the information required and who meets the criteria for inclusion in the trauma register"

Montana is a voluntary state with a defined statute of trauma data submission but it is not happening consistently.

Trauma Registry in Montana

- All facilities are required to participate in the State Trauma Registry data collection
- It is essential that all facilities (those that are ACS Verified or State Designated or are planning to become designated) must be current in their trauma registry data input
- Many ACS Verified facilities are also utilizing the ACS TOIP (Trauma Quality Improvement Program) and benchmarking data with NTDB (National Trauma Data Bank)

Most facilities that are participating in the State Trauma Registry are either ACS verified trauma facilities and/or are State designated facilities. We have a significant number of non-designated facilities that submit TR data/cases and more are submitting every year!

Trauma Registry in Montana

Function and Purpose of the trauma registry

- To facilitate simple and accurate trauma data reporting for internal uses and for the state trauma system
- To assist trauma hospitals in identifying patient populations in that region/town
- To collect and report the state required data

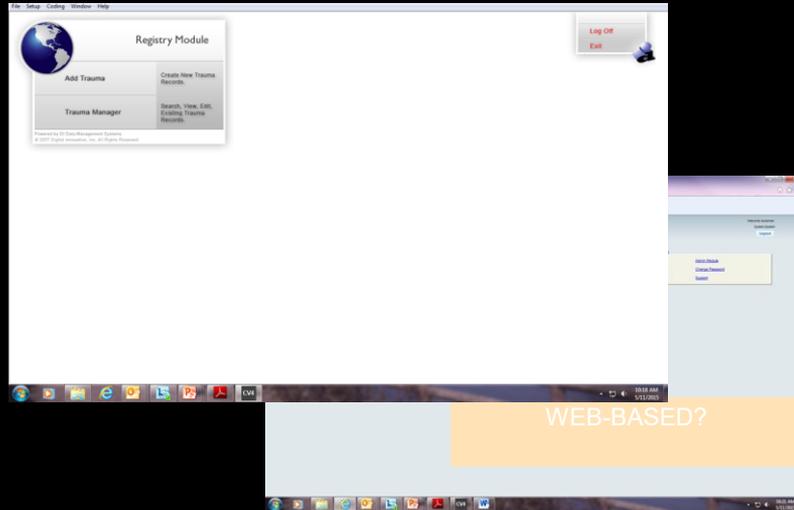
Trauma Registry in Montana

- The State of Montana houses the centralized registry software, to which data is uploaded from software facility users.
- The volume of patients seen at facilities determines whether a facility has the computerized software version or uses the web-based version.

Trauma Registry in Montana

- The Collector CV5 software is set up so data can be entered for all Montana facilities (even those not currently submitting case data)
- Each facility is given an identifying facility number, so that de-identified patient data can be integrated and tracked
- Those facilities that have the in-house Collector CV5 may run reports about their facility's patient population
- The State software is also available to run reports;
 - for any facility that has submitted data,
 - other regional, statewide reports (RTACs, STCC, etc)
 - data validation

Registry Module



Snap shots of the software based registry and the web-based trauma registry case entry screens

Web-based Trauma Registry in Montana

- A web-based trauma registry was developed and implemented January, 2015. It replaced the paper abstract submissions used by the smaller volume facilities.
- This is a slightly abbreviated version of "CV5" which is an upgrade to the current Central Trauma Registry Version we are using.

Web-based Trauma Registry in Montana

Web-based "Collector" registry

- Eliminates paper abstract submission
- Improves data accuracy
- Provides methods for internal data reporting for each facility

Trauma Registry Inclusion; Who should be in the registry?

- There are defined criteria for which trauma patients are included in the registry
- Included patients really represent that “next level up” in care resources required (not every patient with injury)
- These criteria are discussed annually for inclusion or exclusion by all TNCs and registrars and recommendations are submitted to STCC for consideration

Trauma Registry in Montana

What and how do I know what patients to add into the Trauma Registry?

- Utilize the State Inclusion Criteria
- Patients who activated your Trauma Team, were transferred, admitted more than 48hr, admitted to OR/ICU
- Patients who sustained injuries with specific ICD10 codes plus those w/lightning/electrical injuries, burns, and traumatic mechanism anoxia

Montana Trauma Registry Inclusion Criteria

Data must be reported to the Montana Trauma Registry for all patients with a discharge ICD-10CM diagnosis code of:

S00-S99 with seventh character extensions of **A, B, or C** only, (Injuries specific body parts – initial encounter)

T07 (unspecified multiple injuries)

T14 (injury of unspecified body region)

T20-T28 with seventh character extension of **A only** (burns by specific body parts – initial encounter)

T30-T32 (burn by total body surface area (TBSA) percentages)

W67-W74 (drowning), **T71** (asphyxiation), **T75.4** (electrocution)

Trauma Registry Inclusion Criteria plus at least one of the following:

- All patients for whom the full or partial trauma team was activated
- All trauma patients who were dead on arrival at your facility; or
- All trauma patients who died in your facility; or
- All trauma patients transferred to another facility for evaluation and treatment
- All pediatric patients with injuries between the ages of 0-4 admitted to the facility even if less than 48 hours; or
- All patients admitted to your Intensive Care Unit (ICU)
- All trauma patients admitted to your facility with length-of-stay equal to or more than 48 hours
- All trauma patients with open long bone fractures
- All patients taken to surgery for intracranial, intra-thoracic, intra-abdominal or vascular surgery

Continued on next slide

Trauma Registry Inclusion Criteria: So what can't be included?

These are not eligible Exclusions:

Hip fractures resulting from falls from same height (without other significant injuries)

Isolated hip fractures/femoral neck fractures when coded with:

- were a result of fall from chair (**W07**),
- wheelchair (**W05**),
- bed (**W06**),
- other furniture (**W08**),
- toilet (**W18.11-W18.12**),
- fall from same level from slipping tripping or stumbling (**W01**)
- due to ice and snow (**W00**),
- collision w/other person (**W01**),
- or slip, trip, stumble w/out fall (**W18.4**)

Exclusions list those injured patients who may meet inclusion criteria but are not eligible for trauma registry inclusion.

Note that only isolated hip fractures due to falls from the same height with any of the listed mechanisms **without other significant injuries** are excluded. This does NOT mean all patients who sustain significant injuries due to a fall from the same height and who meet other criteria are excluded. It also does not mean that a patient who sustains hip fractures and additional significant injuries due to other circumstances (fall off a cliff, motor vehicle crash, collapse of a building, etc) is excluded, either. As we evaluate patients to include/exclude, remember that we are evaluating injury patients who need “that next level up” of additional resources (Trauma Team activation, trauma resuscitation, expedited procedures and/or operative intervention, rapid transfer to higher levels of care, etc.)

There will always be some patients “outside the lines” who may not meet exact criteria. If you are unsure, contact us @ EMSTS or utilize the Trauma Listserv hhs_trauma_registry@lists@mt.gov to ask other trauma coordinator/registrar to give their feedback on whether or not to include a patient in the registry.

Exclusions (continued)

- **Foreign Bodies, Poisoning, Carbon monoxide, envenomation injuries and hypothermia:** Patients with these diagnoses will not be included unless they are associated with another trauma mechanism with an associated traumatic injury.
- **Single-system orthopedic injuries and unilateral pubic rami fractures:** Single system orthopedic injuries that are not an open long bone fracture (except femur fractures) and unilateral pubic rami fractures resulting from falls from same height are excluded from the trauma registry.

Trauma Registry

From Incident to Discharge

Pre-hospital information

- Injury/circumstances
- Pre-hospital response/times
- Pre-hospital vital signs and Glasgow Coma Scale
- All interventions implemented for the patient should be documented; c-spine immobilization, airway management, SpO₂, supplemental oxygen and route, cardiac monitor, peripheral IV, splinting, etc.
- Please document the times that interventions took place (so the “story” of the patient while in the pre-hospital setting can be determined)

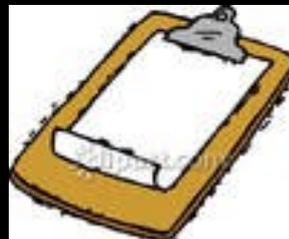


It really is essential to have the pre-hospital information. EMS begins the TEAM approach to trauma and is the initial “phase of care” for many injured patients. Trauma Team Activation should be initiated by the EMS response and communications. What happens in the field and the invaluable information communicated from the field helps the facility activate, assemble, plan, organize and prioritize care of the trauma patient. Many facilities have instituted an emergency tech position in the ED (with EMT certification as requirement) to assist with caring for the trauma patient within a facility. This can be very helpful for those smaller facilities with fewer available staff.

Trauma Registry: Who's on First?

ED documentation

- VS and GCS
- ED dwell time (admission thru dismissal from the ED)
- Procedures, interventions, diagnostics, times implemented in the ED
- Use the Trauma Flow Sheet to document
- When the Trauma Team Activation occurred, who participated (provider) and times they arrived
- Time call made for transfers



We would encourage facilities to use the trauma flow sheet when documenting care of the trauma patient. The Trauma Flow Sheet can provide “cues” about care and what should be documented. It really is helpful to know that the patient was cared for using ATLS guidelines and the ABCs were followed. We still will try to provide feedback to facilities using the web-based trauma registry, we do discuss issues of care that didn’t happen in a timely matter, didn’t happen at all or happened out of sequence. We want you to evaluate the care that is being provided to the patient and talk about what went right and what didn’t go so well, and what needs to be done to change future care so that in the future the same issues don’t re-occur. (More about that in Performance Improvement) Did things happen the right way, in the right order and in the right time frame????

Integrating the Registry into the Trauma Program

- The Trauma Registry information can be used by your facility to determine Performance Improvement issues and for your facility to help improve and enhance patient care
- Identify processes needing revision
- Identify Injury Prevention activities and areas of need
- Identify educational opportunities for staff
- Provide data reports for administration and various hospital committees



State Requirements for Trauma Registrars

State trauma registry course which would be the education being done via WebEx, MTS for the web-based users

For software based users; there was orientation and education and grandfathering those that attended initial training with DI back in 2003- 2004

Current software based registrars are "grandfathered in" if hired prior to July 1, 2014

If hired after July 1, 2014 the registrar must attend

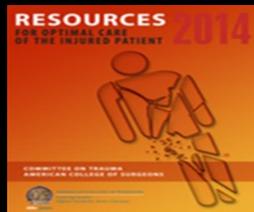
ACS Trauma Registrar Requirements

"Must attend or have previously attended two courses within 12 months of being hired:"

(1) the American Trauma Society's Trauma Registrar Course or equivalent provided by a state trauma program,

(2) the Association of the Advancement of Automotive Medicine's Injury Scaling Course AND

Registrars should have 8 hrs. registry specific education/year



Trauma Registry in Montana

For those Registrars/Trauma Coordinators using "COLLECTOR" both software and web-based

- The person should possess computer savvy/knowledge/skills
- A basic knowledge of what occurs with the care of the trauma patient
- Experience in coding using E-coding and ICD9 coding (desirable, but not essential)

Trauma Registry in Montana

Technical Assistance is available through Digital Innovations at www.dicorp.com or phone (410) 838-4034 :: email info@dicorp.com :: fax (410) 893-3199

Or by EMS and Trauma Systems Section, DPHHS

406-444-3895



Trauma Registry Resources

Link resources:

Trauma Registry Inclusion Criteria, August 2010

[Trauma Registry Inclusion Criteria](#) and [Trauma Registry Flow Chart](#)

➤ [Trauma Registry Submission Calendar](#)

➤ [Web-based Montana Users Guide](#)

➤ [Web-based Trauma Registry –example](#)

➤ [Collector Procedure Codes](#)

➤ [Patient Occupations NTDB Explanation and Example Sheet](#)