Governor's EMS / Trauma Advisory Council

Trauma System Committee
May 9, 2012

Chair, Jorie Klein, RN
Committee Members

Action Item Follow Up

The Trauma System Committee met in January 24th / 25th to address the following five issues. The RAC Criteria will be addressed at the Feb. 8th meeting, April 17, and May 7th.

- PI Recommendations Level III and Level IV
- Geriatric Trauma Care
- Trauma Registry Validation
- Injury Prevention Recommendations
- DWI Initiatives at State Level
- RAC Criteria

Trauma Center Performance Standards

The following performance standards are recommended for all Texas Trauma Centers

1. EMS will make appropriate triage destination decisions from the field.
1. ~~Hospitals will have systems in place to activate the trauma team based on information received from the field EMS agency.~~
2. ~~Trauma team activation is in compliance with national guidelines for activation~~. Hospitals will have systems in place to activate the trauma team in compliance with currently accepted guidelines based on information received from the field EMS agency or upon identification of activation criteria for patients presenting by non-EMS methods.
3. ~~Trauma team activation is initiated following trauma center protocols~~.
4. Trauma team response follows trauma center protocols.
5. Trauma flow sheet (paper or electronic) is utilized.
6. Trauma flow sheet documentation is complete.
7. Resuscitation procedures follow the ATLS/ATCN/TNCC guidelines.
8. Patient quality and ~~Joint Commission~~ Safety Goals ~~and Never events~~ are integrated performance standards.

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center Performance Standards

9. Trauma center maintains an updated trauma protocol manual that reflects review and revision every three years at a minimum.

10. Trauma patient timeliness of movement to the operating suite is monitored.

11. Care follows the national standards of care for the identified injury(ies).

12. Trauma patients ~~defined as severe or major~~ with multi-system injuries, experiencing high-energy mechanisms of injury and /or with injuries that are threatening to life or limb are admitted and managed by the trauma surgeon or surgical specialty team.

13. If transfer is needed, transfer is completed within two hours of arrival.

14. Trauma centers will complete the trauma registry data abstraction and entry for all patients meeting their inclusion criteria within ~~60~~ 45 days of the patient's discharge.

15. Trauma centers will not utilize trauma diversion and if needed will be less than 5% annually.

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center Performance Standards

15. Trauma center admissions are compliant with their defined admission and transfer guidelines.

16. Trauma center provides a concurrent performance improvement review process.

17. Trauma center ~~surgeons~~ physicians will maintain the required education and credentialing.

18. Trauma center staff will maintain the required education and credentialing.

20. Trauma centers maintain participation in injury prevention and outreach trauma education.

21. Trauma center medical director, trauma program manager and registrar participate in the regional ~~trauma~~ advisory council.

20. Trauma center medical director and trauma program manager participate in hospital, community and regional emergency management (disaster) response.

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center PI Event Review

Trauma centers will integrate the appropriate event review into the Trauma Performance Improvement ~~Patient Safety~~ Plan.

1. Field triage errors.
2. Missed, delayed or wrong level of trauma activations.
3. Delayed trauma team response.
4. Failure to utilize the trauma flow sheet or incomplete documentation.
5. Resuscitation decisions and coordination of care do not meet the ATLS/ATCN/TNCC guidelines.
6. Failure or delays in following hospital trauma protocols of management.
7. Delayed trauma transfer: greater than two hours of arrival
8. Delayed movement to OR, for ~~STAT cases~~ hemodynamically unstable patients and/or patients with injuries posing an immediate threat to life or limb.
9. Delayed diagnosis (overread or needed further evaluation) or missed injury (defined as greater than 24 hours or after hospital discharge).

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center PI Event Review

23. Trauma center unable to provide concurrent performance improvement review.
24. Failure to maintain staff education and credentialing compliance.
25. Failure to maintain trauma ~~surgeon~~ physician education and credentialing compliance.
26. Failure to provide standard of care to special populations: pediatric, OB, geriatric, morbidly obese, special populations

23. Trauma patient transferred to a non-designated trauma facility.

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center PI Event Review

10. Complication from injury or treatment modality.
11. Patient Safety ~~Standard~~ or quality issue identified.
12. Failure to screen for anticoagulation therapy ~~and if positive failure to obtain INR~~.
13. Failed non-operative ~~intervention~~ management.
14. Patients with multisystem injuries ~~patient defined as severe or major~~, experiencing high-energy mechanisms of injury and /or patients with injuries that are threatening to life or limb experiencing high-energy mechanisms of injury and /or with injuries that are threatening to life or limb is admitted to a non-surgeon.
15. Failed Extubations .
16. Unplanned admission or readmissions to the ICU.
17. Unplanned return to the OR.
18. Patient transferred out of the facility from an inpatient unit.
19. Failure to follow admission transfer protocols.
20. Death of trauma patient. ~~All screened but not all require peer review~~.
21. Trauma facility diversion.
22. Trauma center trauma registry data extraction completed and entered greater than ~~60~~ 45 days of patient discharge.

Original Language Feb GTS add-on ~~Suggested deletion per TTCF~~

Trauma Center Physician Follow Up

- We submit the following additional language be added to the Orthopedic and Neurosurgical section of the Level III rules:

  “While the orthopedic (neurosurgical) representative should ideally be a single individual, in settings where it is not possible for a single individual to fulfill the attendance requirements, more than one orthopedic (neuro) surgeon can be appointed to fulfill this role, providing each individual meets all other requirements of the representative. Additionally there should be evidence of dissemination of information among other surgeons providing orthopedic (neurosurgical) trauma care."

- Need to defined language regarding the “non-boarded physician”
  - Trauma Medical Director
  - Core Trauma Surgeons
  - Liaisons

  Assigned to Craig Daniel, MD

Trauma Physician Credentialing

- **Alternate Pathway Level III**
- Surgeon
- Letter by Trauma Medical Director (TMD) indicating critical need in the trauma program because of physicians experience or limited physician resources within the hospital trauma program.
- Evidence that the surgeon physician has completed an accredited residency-training program in that specialty.
- Documentation of current ATLS
- A list of 27 hours of trauma CME over three year period.
- Attendance at least 50% of trauma P.I. meetings
- Performance improvement assessment by the trauma medical director that care provided compares favorably with care provided by the other surgeons on the trauma call panel.

Trauma Physician Credentialing

- **Alternate Pathway Level III**
- Emergency Physician
- Letter by Trauma Medical Director (TMD) indicating critical need in the trauma program because of physicians experience or limited physician resources within the hospital trauma program.
- Evidence that the emergency physician has completed an accredited residency-training program in that specialty.
- Documentation of current ATLS
- A list of 27 hours of trauma CME over three year period.
- Performance improvement assessment by the Emergency Medical Director that care provided compares favorably with care provided by the other members of the emergency physicians on the trauma call panel.

Trauma Physician Credentialing

- **Alternate Pathway Level III**
- Orthopedic Surgeon
- Letter by Trauma Medical Director (TMD) indicating critical need in the trauma program because of physicians experience or limited physician resources within the hospital trauma program.
- Evidence that the orthopedic surgeon has completed an accredited residency-training program in that specialty.
- A list of 27 hours of trauma CME over three year period.
- Performance improvement assessment by the TMD that care provided compares favorably with care provided by the other members of the other orthopedic surgeons on the trauma call panel.

Trauma Physician Credentialing

- **Alternate Pathway Level III**
- Neurosurgeon
- Letter by Trauma Medical Director (TMD) indicating critical need in the trauma program because of physicians experience or limited physician resources within the hospital trauma program.
- Evidence that the neurosurgeon has completed an accredited residency-training program in that specialty.
- A list of 27 hours of trauma CME over three year period.
- Performance improvement assessment by the TMD that care provided compares favorably with care provided by the other neurosurgeons on the trauma call panel.

Trauma Registry Validation

GOAL: Define procedures that need to be in place to ensure accurate, complete data prior to submission to the State.

GOAL: Define State procedures.

- Add language that that requires, if registry submission has errors that there are to be corrections within 30 days.
- Add language to trauma registrar's requirements that reflect work of data extraction, data entry, data validation, report generation, performance improvement, national/state/regional data submission, benchmarking comparison activities, uncompensated care grant and other grant assistance.
- The NTDB has established a standard for error validation. The error reporting needs to meet the NTDB standards. Validation needs to mirror this process for the state.
- State will provide quarterly statistical reports 2 weeks prior to GETAC meeting.
- Define equipment/software needs.
- State registry will conduct biannual meetings with vendors to verify that the data dictionary is current.
- Define Educational needs for TPM/TR
- ATS trauma program manager course (recommended)
- Define priority needs:
- Evaluate State procedures

Texas Trauma Registry

- Develop the Data Dictionary
- Communicate data elements to vendors
- Reports can then be developed
- User Education

Data Dictionary

- Elements were decided upon by the RSWG through review of NTDB and current state elements (step 1)
- The data dictionary is the foundation on which a registry is developed (step 2)
  - Defines required elements
  - Defines optional elements
  - Assists in the development of reports
  - Provides information to the vendors that may need to adjust current export software
- Without a data dictionary there will be confusion and extra work
- There is no existing complete data dictionary for the registry.
- Many questions can be answered with the development of a data dictionary

DG_02

INJURY DIAGNOSES

Data Format [combo] multiple-choice *National Element*

Definition

Diagnoses related to all identified injuries.

XSD Data Type *xs:string*
Multiple Entry Configuration Yes, max 50
Required in NTDS Yes

XSD Element / Domain (Simple Type) *InjuryDiagnosis*
Accepts Null Value Yes, common null values

Field Values

- Injury diagnoses as defined by (ICD-9-CM) codes (code range: 800-959.9).
- The maximum number of diagnoses that may be reported for an individual patient is 50.

Additional Information

- ICD-9-CM codes pertaining to other medical conditions (e.g., CVA, MI, co-morbidities, etc.) may also be included in this field.
- Used to auto-generate additional calculated fields: Abbreviated Injury Scale (six body regions) and Injury Severity Score.

Data Source Hierarchy

1. Hospital Discharge Summary
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Trauma Flow Sheet
4. ER and ICU Records

Associated Edit Checks

Rule ID	Level	Message
6901	1	Invalid value
6902	4	Blank, required field
6903	2	At least one diagnosis must be provided and meet inclusion criteria (800 – 959.9, except for 905 – 909.9, 910 – 924.9, 930 – 939.9)

Vendor Communication

- Many hospitals are preparing budgets
- Costs to update the export software unknown because the required/optional data elements have not been provided
- Provide data elements to vendors and hospitals by the end of the month

Reports

- Define which reports can be generated via the required elements
  - Assist in pulling data together for application
  - Support some PI activities in hospitals
  - Support regional and state PI activities
- Define which reports can be generated via the optional elements
  - Potentially provide additional PI data for hospitals
  - Provides the added functionality of the system

Education

- Users will understand required vs option elements
  - Improve data quality focusing on required elements in data validation reports
  - Understand availability of reports based on required elements
  - Understand the full functionality of the registry using both required and optional elements and can make educated decision on how much functionality they wish to have

Data Dictionary

- The data dictionary is essential to moving the registry forward
- Provides clarity in the building of the registry
  - Question packets
  - ‘Wizard’ function
- Provides needed data to the vendors
- Provides the basis for report writing
- Provides the basis for education of users

Critical Questions

- If the Texas Stakeholders pulled out of the development – can the vendor develop a product that can support accurate AIS scoring, ISS scoring and a PI infrastructure that is inline with the national standards?
- Does the vendor intend to bid on trauma registries for any other agency, entity or state?

Critical Questions

Is it time for the Texas Trauma Registry to begin to only focus on being a data repository and data analysis – like NTDB

- Question if the vendor has the expertise, knowledge and capabilities to build a registry that can do accurate AIS scoring to ISS scoring – Or PI without commitment of stakeholders who give their time
- Is the vendor going to pay for the stakeholder salaries for their level of participation
- Is there money left to buy registries for the III and IVs who do not have a registry in their facility
- Can RAC money be used to purchase these registries

Trauma Registry

- What is timeline for DSHS to hire appropriate personnel to manage registry
- Who is dedicated to trauma registry
- When is Texas going to join NTDB
- What about the hospitals that are not designated

Texas Trauma Centers

TC Level	Re-Designation	New Designation	Follow Up Visit
I	4	0	0
II	2	1	0
III	17	3	2
IV	75	8	10

Reasons For Follow Up Visit

- Lack of PI Activity
- Unfulfilled PI Activity

Recommendations

- TOPIC Course
- TMD attend TOPIC
- How To Cases
- Continued Education and Best Practice Sharing through the Texas Trauma Coordinators Forum and RACs

Opportunity

- Standardize PI terminology for Texas
- ACS – Initiated changes 2 years ago
- Indicator = Event
- Define Type, Domain
- Judgment = Determination / Cause
  - System
  - Patient
  - Provider / Practitioner
- Action Plan = Prevention / Preventative Initiatives

Opportunity

- Non Preventable = Mortality without opportunity
- Potentially Preventable & Preventable = Mortality with opportunity
- Recommend
  - Mortality with Trauma Center Opportunity(ies)
  - Mortality with Regional System Opportunity(ies)

2010 Participating Hospitals

Level of Trauma Center	Number
Level I	15
Level II	9
Level III	49
Level IV	184
Non Designated	64

Waiver

- Innovative Recommendations
  - State PI Plan
  - State EMS / Hospital Surge Plan – Pediatric, Trauma, Burns, Special Needs
    - Operation Center Coordination
    - Communication
  - Pediatric Categorization
  - Trauma Registry – Outcome Review modeling after the Michigan TQIP Process
  - Geriatric Care
  - Patient Experience
  - Rural – EMS / Physicians / Nurses
  - Injury Prevention Programs specifically targeting ecodes causing the highest mortatlity, disabilities and health care cost in Texas

Trauma System Committee Liaison Reports

- **GETAC** — **R. Stewart, MD**
- **ACS Region VI .** — **R. Stewart, MD**
- **TTCF** — **S. Christopher**
- **Level IV** — **J. Gondeck / D. Tappen**
- **Level III** — **C. Daniel / L. Price / R. Lopez**
- **Level II** — **C. Rhyne / D. Smith**
- **Level I** — **B. Eastridge / J. Klein**
- **Pediatrics** — **M. Frost**
- **TETAF Trauma Division** — **L. Price**

Trauma System Committee Stakeholder Liaison Reports

- TACEP — A. Fisher
- EMS — J. Ortiz
- Trauma Center Administrators — D. Rose
- THA — D. Rose / J. Klein
- Texas ENA — K. Rogers
- TETAF — D. Welsh

Thank you for your presence, commitment, gifts of service and gifts of knowledge.

Trauma System Committee