Responsibilities of the Trauma Center Trauma Medical Director (TMD)

The Trauma Medical Director (TMD) is responsible for the oversight and authority of the trauma center’s trauma care, credentialing of trauma surgeons and participating liaisons, trauma registry, injury prevention, and outreach education. The TMD must have the authority for the trauma performance improvement and patient safety plan development, implementation, and evaluation of the trauma program’s outcomes in collaboration with the trauma program manager. The success of the center’s trauma program is linked to the performance improvement process and trauma registry initiatives of the trauma center. In the level III and IV trauma centers access to the data is critical to success. The trauma program manager manages the daily activities of these job functions. The trauma medical director is responsible for ensuring the organization of services and the systems necessary for a multidisciplinary approach to trauma care is efficient and all criteria for the trauma center verification and designation are met. The TMD is responsible for the integration of evidence-based practice and national standards of care for the injured patient into the trauma protocols and is monitored by the trauma performance improvement process. The TMD role covers all phases of care and multidisciplinary interactions within the trauma center.

Key Responsibilities include:

- Provides the authority and oversight for the trauma center through all phases of trauma care and all components of the trauma center to include but not limited to:
  - Establishing evidence-based practice and compliance with national standards of care for all injuries evaluated and managed by the trauma center
  - Credentialing of trauma surgeons and liaison faculty
  - Routinely takes call for trauma monthly and has dedicated time for the trauma center administrative needs
  - Trauma performance improvement and patient safety plan, reviews, findings, opportunities, action plans and event resolution
  - Establishing the trauma activation guidelines that are compliant with national standards, trauma resuscitation protocols that integrate communication standards to ensure best practice, transfer guidelines that clearly define what patients cannot be cared for at the trauma center and require transfer to a higher level of care, and diversion protocols
  - Trauma system (operations) committee
o Trauma multidisciplinary peer review committee

o Trauma registry and data utilization oversight

o Establishes routine trauma center steering meetings the trauma program manager (director), and administrator (vice-president) responsible for the trauma center (administrative responsibility)

o Establishing an orientation process for new trauma faculty or liaison faculty (level IV trauma facilities will focus on new emergency medicine physicians)

o Participation in the regional trauma advisory council to include EMS guidelines, performance improvement initiatives, field triage decisions and EMS education

- Identify and engage trauma center stakeholders.

- Leads in the development and planning of PI goals and best practices related to trauma care.

- Leader in championing Trauma Center Verification
Responsibilities of the Trauma Center Trauma Program Manager

The Trauma Program Manager is responsible for the oversight and authority of the trauma center’s trauma program in collaboration with the trauma medical director. The authority and oversight covers all phases of trauma care from the prehospital setting through the phases of care in the trauma center to discharge. The authority and oversight includes all components of the trauma center to ensure trauma center criteria are continually met to include but not limited to trauma patient rounding, trauma performance improvement and patient safety plan and associated reviews, evaluation of the trauma program, the trauma registry, trauma outreach education, injury prevention and integration with the regional development. The trauma program manager is responsible for the oversight and orientation of all staff in the trauma program and recommendations for educational needs for all staff involved in trauma care within the trauma center. The trauma program manager is responsible for all data request and data submission to the region, state and national data banks.

The trauma program manager in collaboration with the TMD is a leader in the Performance Improvement (PI) processes and initiatives. The trauma program manager is responsible for building positive relationships within the trauma system that promote timely identification and management of events. The trauma program manager is responsible for the management of review, validation and time sequenced documentation for events that are processed through the levels of review: primary, secondary, tertiary and quantinary. This process covers all aspects of the phases of care and multidisciplinary interactions within the trauma center and region.

Key Responsibilities include:

- Responsible for compliance to the trauma center’s continual criteria compliance in collaboration with the trauma medical director and trauma administrator (vice president)

- Responsible for the authority and oversight of the components of the trauma center
  - Trauma patient outcomes and trauma patient rounding
  - Trauma performance improvement and patient safety plan and the components of the plan
    - Event identification, validation and documentation
    - Primary level of review
    - Preparation of the secondary level of review with the trauma medical director with the agenda and sign-in sheet.
- Planning for the trauma peer review, minutes documentation, with agenda and sign-in sheet from the meeting in collaboration with the TMD
- Assist the TMD with plans for action plan and follow up from the reviews
- Responsible for the trauma system committee attendance, agenda and minutes in collaboration with the TMD
- Responsible to ensure all identified PI issues are tracked until they are defined as closed in collaboration with the TMS.

- Through data validation ensure accuracy of hospital trauma registry data.
- Work with vendor for timely trauma registry upgrades, data capture for required fields and field values.
  - Coordinate with trauma registry vendor for mapping and NTDS compliance
  - Work with registry to ensure that data is submitted to state
  - Work with registry to ensure that Validator and Submission Frequency reports are an accurate representation of the data in your trauma registry.
- Facilitate the measurement of selected outcomes for the trauma patient population; such as compliance with trauma activations, response times, ED dwell times, and other elements selected for the trauma center dashboard.
Responsibilities of the Trauma Program Registrar (TPR)

The trauma program registrar (TPR) is fundamental to the trauma center’s performance improvement process of evaluation of trauma patient outcomes. The trauma registrar is responsible for data abstraction, injury coding, injury scoring and trauma registry data entry. The trauma registrar is responsible for data reports, data submission and statistical reports. The trauma registrar may be responsible for patient rounding, attending check out conferences, attending performance improvement meetings and trauma activation charge capture. The trauma registrar is responsible for completing the trauma registrar educational programs outlined by the trauma program manager (director), AAAIM Injury Scoring class, TQIP educational programs, and other educational programs to acquire the Certified Specialist Trauma Registrar Certification and maintain the certification. The trauma registrar is responsible for reports that support the trauma system committee and the trauma multidisciplinary peer review committee. The trauma registrar is responsible for data submission to NTDB, state and regional registry in collaboration with the trauma program manager (director). The trauma registrar is responsible for the trauma registry data entry, data validation and data submissions that support TQIP. function of the TPR with the obligation to provide high quality and timely data within the trauma center. The trauma registry is a direct link in the process for Performance Improvement (PI) initiatives. The TPR serves as a leader in quality data abstraction, data entry, coding and data validation to submission. This role is critical to the success of the trauma center’s performance improvement and patient safety processes. This role manages the data integration for the trauma registry and performance measures. This individual captures data for the TQIP initiatives and assists in identify opportunities by reviewing the ACS TQIP reports and feedback. TPR role is instrumental in capturing data to reflect outcomes of new initiatives and practices implemented as a result of the TQIP reports. TPR is responsible for the oversight, coordinating/engagement of the data validation reports for the trauma center.

Key Responsibilities include:

- Collaborates with the TPM to define optimal processes for data abstraction and measures to ensure data timeliness, accuracy and completeness for trauma registry inclusion and participation in TQIP.

- Primary lead for data extraction and validation for the ACS TQIP program.

- Participates in the review of the TQIP benchmark reports.

- Use TQIP results to identify areas for improvement in data validation and management.

- Participate in and champions TQIP and Trauma Center Verification education.
• Actively engage in the center’s TQIP deliverables in alignment with TPM hospital role
  o Abstraction
  o Data compliance
  o Participates in the registrar education and development opportunities
  o Captures data to support the performance improvement initiatives
  o Captures data for review of complications and co-morbidities review
  o Attends the TQIP offered tutorials and engage all registrars
  o Attend the registrar’s TQIP Monthly Educational Experiences
  o Attend TQIP monthly registry staff web conference
  o Attend the registrar’s TQIP online courses
  o Integrate data validation reports into performance opportunities
  o Attend and participate in the TQIP Annual Conference (funding made available by hospital)

• Ensures data accuracy of trauma center’s trauma registry data.

• Work with vendor for timely upgrades, data capture for required fields and field values.
  o Assist with the trauma registry vendor for mapping and NTDS compliance
  o Ensure that data is submitted quarterly to TQIP
  o Ensure that Validator and Submission Frequency reports are an accurate representation of the data in your trauma registry.

• Share TQIP data solutions with other TQIP Centers.

• Participates in the Texas TQIP Collaborative Initiative
  o Participates in the review of TQIP Collaborative Reports to define areas of high performance and areas of low performance.
  o Works with TPM to prepare to share high performance success with other collaborative members.
  o Responsible to maintain confidentiality for all meeting discussion and reports shared at the collaborative meeting.

6
- Participates in workgroups and strategies to move identified best practice modes to all trauma centers in Texas.
- Serves as a champion in their regional system and shares data management successes.
- Contributes as requested to ACS TQIP committees.
Example TPIPS Plan

Anytown Trauma Center

Trauma Performance Improvement & Patient Safety Plan

Trauma Program Philosophy

DEFINE

Mission

DEFINE (What are your current operations)

Vision

DEFINE (Where do you want to be in next 3, 5, years)

Authority

The Board of Managers and the Medical Staff Committee have documented their commitment to the trauma center through signed Resolutions. The Chief Executive Officer, Chief Operating Officer, Chief Medical Officer and Chief Nursing Officer have defined an organizational structure with aligned job descriptions that define the authority and oversight of the Trauma Center. The defined administrator, the trauma medical director and the trauma program manager are accountable for the oversight of the trauma center. These individual have the authority and scope of service to evaluate all trauma care activities from the preinjury state, prehospital, resuscitation, critical care, operative intervention, supportive care through rehabilitation and reintegration into the community. In this capacity, these leaders have the authority and oversight for the trauma performance improvement and patient safety program, the trauma registry data management, injury prevention programs, outreach education, and regional integration. These individuals are responsible for establishing the structure and process of the trauma performance improvement patient safety plan. This plan defines the events for review, data definitions, levels of review and the processes for review. The job descriptions for these three individuals define that they are responsible for the management and oversight of the trauma center’s compliance with the American College of Surgeons’ Committee on Trauma’s trauma center criteria, as well as the state regulations for a trauma center criteria.
The statistical performance and the trauma performance improvement and patient safety outcomes are reported monthly through the Trauma System Operations Committee and bi-annually to the hospital Board. The trauma performance improvement and patient safety plan is integrated with the institutional Performance Improvement Program, Risk Management and Medical Staff Peer Review structure. The Chief Medical Officer has the ultimate authority for all medical care within XXXXX in collaboration with the TMD.

The trauma performance improvement process and patient safety plan follows the ACS trauma center verification criteria and state statutes.

**Health and Safety Code Chapter 773.995 (Need to utilize your state’s statutes)**

**Records and Proceedings Confidential**

a) The proceedings and records of organized committees of hospitals, medical societies, emergency medical services providers, emergency medical services and trauma care system, or its responder organizations relating to the review, evaluation, or improvement of an emergency medical services provider, a first responder organization, an emergency medical services personnel are confidential and not subject to disclosure by court subpoena or otherwise.

b) The records and proceedings may be used by the committee and the committee members only in the exercise of proper committee functions.

c) This section does not apply to records made or maintained in the regular course of business by an emergency medical services provider, a first responder organization, or emergency medical services personnel.

**Pursuant to Section 160.007 of the Texas Occupations Code, the following information relating to trauma performance improvement review is confidential and privileged.**

All documents and reports generated through the review process are defined as confidential and cannot be disseminated or shared outside of the trauma performance improvement process and patient safety plan. Reports are reflected in aggregate data without identifiers.

**Scope**

The trauma performance improvement process and patient safety plan (TPI PSP) reviews all trauma team activations and the care of trauma patients admitted to Anytown trauma center. Inclusion criteria for the TPI PSP process begins with meeting trauma team activation criteria. Trauma activations are screened for compliance of the activation protocol, timeliness of response and dispositions. Trauma activations that are admitted and those that expire or are transferred in or out of Anytown Trauma Center are reviewed through the TPI PSP process. The TPI PSP process reviews all phases of care from pre-hospital, resuscitation, operative intervention, critical care, stabilization, general care and movement to rehabilitation. Each trauma admission is screened for compliance to trauma center verification criteria, defined best practice guidelines, standard of care guidelines or protocols, morbidity, mortality, system variations, and patient safety goals. Issues identified are called events or variations in care.

The TPI PSP primarily focuses on those patients that have an ICD.9 of 800-959 that meet trauma activation criteria, excluding the following (Note – change to ICD.10)
- 905-909 or late effects of injury
- 910-924 or blisters, contusions, abrasions and insect bites
- 930-949 or burns without trauma
- Patients who are evaluated, resuscitated, treated and released
- Patients who are treated and released from the Ambulatory Surgical Center
- Patients who are OB patients with no defined trauma injury
- Patients who are admitted for cellulitis from IV drug abuse
- Patients who are admitted whose injury is secondary to a primary medical diagnosis which caused the event

The trauma center participates in national and state quality data projects to ensure trauma outcomes are comparable to national outcomes. This is through participation in the NTDB, which provides national benchmarking comparison data that is used to define opportunities for improvement.

**Credentialing**

The identified administrator is responsible for ensuring the administrative leadership team is knowledgeable of the current trauma center criteria and trauma center needs. The administrator is responsible to ensure trauma center criteria across the hospital is met and ensures all medical staff contracts that support the trauma center are in compliance and reviewed annually.

The trauma medical director’s job description defines the performance requirements and responsibilities of the trauma medical director. The trauma medical director is responsible for the trauma surgeon’s, trauma liaison’s and advanced practice provider’s credentialing to participate in the trauma care and the trauma call schedule. The trauma surgeons’ and liaison’s role in the TPIPSP are defined in their credentialing process.

*In most level IV trauma centers, the physicians caring for the trauma patients are the emergency medicine physicians and advanced practice providers. In this case the trauma medical director defines credentialing for their participation in trauma care. If there are trauma cases taken to the OR for surgical intervention in a level IV trauma facility, this needs to be carefully reviewed.*

The trauma surgeons credentialing process include the following:

**DEFINE**

The trauma liaisons for emergency medicine, neurosurgery, orthopedics, interventional radiology, surgical critical care and anesthesia credentialing process include the following:

**DEFINE**
The trauma program manager is responsible for the education, training and competency of the trauma program staff. In addition, the trauma program manager ensures that all trauma center criteria, across all departments are met and trauma patient care meets the national standards of care. The trauma program manager has direct oversight of the trauma performance improvement process, trauma registry, data management, injury prevention, outreach education, and compliance to trauma center criteria.

**Trauma Patient Population Criteria**

As previously stated, the TPI PSP primary focuses is on the trauma activations and admitted trauma patients that have an ICD.9 code of 800-959, excluding the following (NOTE MOVE TO ICD.10)

- 905-909 or late effects of injury
- 910-924 or blisters, contusions, abrasions and insect bites
- 930-949 or burns without trauma
- Patients who are evaluated, resuscitated, treated and released
- Patients who are treated and released from the Ambulatory Surgical Center
- Patients who are OB patients with no defined trauma injury
- Patients who are admitted due to cellulitis from IV drug abuse
- Patients who are admitted whose injury is secondary to a primary medical diagnosis which caused the event

All trauma patients that meet the inclusion criteria and are admitted to the hospital, expire or are transferred in or out are included in the trauma performance improvement and patient safety review process. In addition, all trauma team activations are reviewed for compliance to activation protocols, correct levels of activation and timeliness of activation. Response times to the activations are consistently monitored as well as transfer times. Diversion times are reviewed and monitored.

**EMS Collaboration**

Each patient that arrives by EMS from the scene or is transfer in or out is reviewed to ensure timeliness and coordination of care. Each arriving patient needs a completed EMS patient care record. Cases that do not have the EMS patient care records, or have incomplete EMS patient care records are defined and trauma program staff will engage with the EMS agency to obtain the record. This data is tracked and shared as needed with the various EMS agencies and the Regional Advisory Council. Care prior to arrival is reviewed for compliance to national and regional standards of care as well as their communication and hospital appropriately receiving the EMS patient.
EMS agencies can request feedback regarding trauma patients by contacting the trauma office. This can be done in a formal letter or by utilizing a referral or by emailing traumapatientfollowup@xxx.org. Information is provided for continuum of care and education only. Information is only provided to the agency that transported the trauma patient. Shared information includes the patient’s mechanism of injury, identified injuries, and ED disposition. Patient care activities for the first twenty-four hours of admission are included in the feedback process.

**Trauma Patient Transfers**

Each trauma patient that is transferred into Anytown trauma center is screened for care prior to the transfer, timeliness of transfer, completion of the memorandum of transfer, complete hospital records, and transfer notification. Issues identified are tracked through the TPIPS process. Identified variances are referred back to the transferring facility.

Each referring facility receives transfer follow up from Anytown trauma center. The follow-up includes the identified injuries, injury severity score and disposition from the trauma resuscitation bay as well as care within the first twenty four hours of admission. In addition, any opportunities for improvement are forwarded back to the transferring facility. All documents are defined as confidential and sent back to the identified trauma program manager. If the facility is a non-designation facility the information is sent to the emergency department nursing manager/director or the hospital risk manager for HIPAA precautions.

Trauma patients that are transferred out of Anytown’s trauma center are screened for the reason for transfer, location of transfer (trauma resuscitation bay verses inpatient setting), timeliness of transfer, complete memorandum of transfer, transfer check list, transfer consent, physician communication and documentation sent with the patient. Issues identified are processed through the TPIPS process and then forwarded to regulatory for review to ensure all EMTALA issues are addressed.

**Data Collection and Review**

Each trauma patient that meets criteria for review in the TPIPS is screened for variations from the defined trauma standards of care, morbidity, mortality, system variances, patient safety goals, operational performance financial measures, and clinical outcomes. This process encompasses all phases of care from pre-hospital, resuscitation through hospital admission to discharge and their follow-up clinic visits, transfer to another acute care facility or expiration. All documentation in the medical record is subject to review during this process.

The review includes the following documents but is not limited to these documents:

- EMS Patient Care Records / Air Medical Reports
- Facility Transfer Documents (Transferred Patients)
- Trauma Nursing Assessment (trauma flow sheet)
Trauma History and Physical
Admission Notes / Physician Admission Orders
Emergency Physician Assessment
Consultation Notes
Radiology Notes / Reports
Pathology Reports
Respiratory Therapy Notes
Progress Notes
Operative Records
Operative Summaries
Anesthesia Records
All consents
Critical Care Nursing Documentation
Critical Care Physician Documentation
General Care Nursing Documentation
Physical Medicine and Rehabilitation Assessment and Notes
Nutritional Services Notes
Financial Notes
Interdisciplinary Education Notes
Trauma Psychosocial Team Notes
Discharge Planning Notes
Discharge Notes
Discharge Summaries
Medical Examiner Summary
System documents that assist in defining the timeliness and coordination of care issues
Patient Grievance Reports / Patient Complaints

Patient Call Back Reports

Patient Safety Reports

Referrals from Risk Management

The review process begins on admission with review of the pre-hospital records, transfer information and the resuscitation, diagnostic interventions and admission process and then daily through the patient’s sequence of care or continuum of care through to discharge or death. All performance and safety goal events that are identified are documented appropriately for the TPISP tools. Each event is validated by time sequenced documentation and the NTDB data definitions for the event.

Data Definitions

TPISP data elements are defined. The trauma medical director, trauma program manager and the trauma registrar are responsible for the data definitions and compliance with the NTDB data set. The trauma medical director is responsible to ensure all trauma surgeons and trauma liaisons are updated on the data definitions and have access to the definitions. The Trauma System Operations Committee is responsible for approval of all revisions to ensure all departments are aware of the changes.

The Trauma Program has data definitions for all events that are reviewed through the performance review process.

The following list defines the categories for events:

- Medication error
- Adverse Drug reaction
- Equipment, supply device event
- Complications
- Treatment or diagnostic procedure event
- Transfusion related event
- Delayed, missed injury diagnosis
- Variance to the standard of care, protocol compliance, best-practice guideline compliance
- Premature removal of device (PROD)
- Unplanned ICU admission
• Unplanned readmission
• Unplanned operative intervention or unplanned return to the OR
• Loss of body part, function of organ not related to the initial injury
• Loss of vision, hearing, sight not related to the initial injury
• Loss of mobility: paraplegia or quadriplegia not related to the initial injury
• Injury occurrence in hospital
• Wrong site surgery
• Disruptive behavior
• Mortality
• Diversion hours
• Trauma center criteria compliance
• System performance
• Regulatory compliance
• Staff satisfaction
• Patient satisfaction

The National Data Bank Standards provides the data definitions for the complications and co-morbidities.

Primary Review: Issue Identification, Validation, Documentation

Each trauma patient admitted to the trauma center is screened daily for variations from the standard of care or events. Events identified are validated by documentation in the medical record or appropriate records. The event is then documented in the trauma registry PI section. Documentation defines the time sequence of the event, process of events, who was involved and location. All documentation is objective and subjective information is avoided. These events may be related to the patient, practitioner/provider, system or operational events, financial or clinical events. Review of the event begins with background information and a patient history. The impact of the event and level of harm are defined first. The type of event and where the event occurred (domain) are identified and documented.
Process for Performance Improvement and Patient Safety Review

The timeline for events, morbidity and mortality reviews are weekly, from XXXX through to the following XXXXX. The primary review is with the trauma program manager and trauma program staff. If the identified event is a system related issue with no defined harm to the patient, the trauma program manager is responsible for managing corrective action plan and communication with the TMD. All other events are prepared for further levels of review. All issues are then reviewed by the trauma medical director and the trauma program manager. The trauma program manager is responsible for preparing all identified events for the secondary and third level of review.

Levels of Review

Primary Review: Issue identification, validation, and documentation.

The trauma program manager is responsible for the issue identification, validation and time sequence documentation of the event and linkage to pertinent patient records.

The trauma program manager has the authority to manage the action plan for system related events, delays, and documentation issues that do not cause harm to the patient. These defined action plans are then reviewed with the Trauma Medical Director. These corrective action plans are then tracked through the system operations committee.

Secondary Review: Defines the cause and action plan or prevention measures to reduce the incidence and effects of the events.

All variances to the standard of care that cause harm to the patient and all morbidity and mortality cases identified are validated and documented and prepared for the secondary level of review with the TMD. The review process serves as a screening process for all identified case reviews and. Members present include the TMD and TPM. The trauma medical director defines the cause and preventative action for each identified issue. The medical director may define action plans, refer them to specialty services/departments for additional information, refer them to the Regional Advisory Council for review through the System Performance Improvement Meeting, or request the case to be presented at the trauma multidisciplinary peer review committee. The trauma program manager is responsible for the follow up activities of the meeting. The medical director is responsible to notify all individuals requested to present at the trauma multidisciplinary peer review committee. If the TMD was the physician of record for the case, the case will be referred to another individual to review the case.

The trauma program manager prepares the performance improvement documents for data tracking. This may be in the trauma registry profile or other measures defined by the trauma program manager. The trauma program manager is responsible for tracking all referrals and follow up of all preventative measures.

Tertiary Review: Trauma Multidisciplinary Peer Review Committee
The Trauma Multidisciplinary Peer Review Committee is chaired by the Trauma Medical Director. Minutes reflecting the critical discussion, determination and mitigation or preventative actions from the discussion are recorded by the trauma program manager. The trauma medical director leads the critical discussion. It is the responsibility of the trauma medical director to define the determination and overall action plan for each case. The trauma medical director and trauma program manager are responsible to track identified issues and the outcome of the defined action plans.

Identified needs or action plans are then listed on the agenda of the Trauma System Operations Committee under the performance improvement section to facilitate tracking of the action plan and resolution of event(s).

The Trauma Multidisciplinary Peer Review Committee is held every XXXX from XXXXX in the XXXXXX Conference Room. The committee may be cancelled at the discretion of the trauma medical director. Selected cases for discussion will be rescheduled.

The trauma medical director may request a case referred to the Medical Staff Peer Review Committee. The trauma program manager will prepare all documents and share all findings with the coordinating office. A cover letter requesting the date of review is sent back to the trauma program manager serves as follow-up of the referral.

All meeting discussion, minutes and activities are confidential and protected. Visitors are not permitted during the peer review discussion and must be approved by the trauma program manager and TMD. Sign-in attendance must be maintained.

Medical Staff Peer Review

The trauma medical director has authority to refer any trauma case to the hospital Medical Staff Peer Review.

Taxonomy Utilized for Trauma Performance Improvement and Patient Safety

Event or deviation from the standard of care occurs

Event impact causes a level of harm to the patient. Review will define the level of harm.

Levels of Harm

1. No harm – Standard of care provided with some deviations with no impact to the patient

2. No detectable harm: Event occurred but did not reach or impact the patient; no treatment, intervention or additional activity required

3. Minimal harm – Impact to patient, is symptomatic, symptoms are mild, loss of function is minimal or intermediate but short term, and no or minimal interventions (extra observation, investigation review, minor treatment) is required.
4. Moderate harm – Patient outcome is symptomatic, requiring an intervention (e.g. operative intervention, therapeutic treatment), and increase in the length of stay, or causing long term loss of function; requires high level care; expected to resolve prior to discharge.

5. Severe harm – Patient is symptomatic, requiring life-saving intervention or major surgical/medical critical care intervention, shortening life expectancy or causing major permanent harm or long term harm or loss of function (error in judgment, deviation from practice, system delays); impact the quality of care; impact the quality of life.

6. Death – Patient expired due the injury or related events

7. Temporary harm – Resolves prior to discharge.

8. Permanent: Condition is present at discharge and does not resolve within 6 months of discharge from the trauma admission

Impact

The level of harm to the patient produced by the identified event.

Medical Impact

The most severe level of harm identified should be recorded. Final determination of temporary vs permanent harm should be assigned at the time of trauma center discharge

Physical

• Defined by the level of harm. (See above)

Psychological

• Defined by the level of harm.

Non-Medical

Legal

• Unexpected negative outcome
• Injury or harm caused in hospital
• Loss of property in the hospital
• Other ________________________________

Social

• Complaint registered
• Unrecognized or unaddressed potential domestic/family violence
• Language barriers
• Cultural needs impact care
Economic
- Unnecessary admission / procedure / treatment
- Prolonged stay
- Improper admission: full admission vs observation
- Delayed procedure/treatment / discharge
- Other ________________________________

TYPE
The implied or visible processes that were faulty or failed (and thereby led to the event).

Communication
Communication between provider and patient, patient surrogate, multidisciplinary team and other providers. Includes unavailability of information.

- Inaccurate & incomplete information
- Questionable Interpretation
- Questionable consent
- Questionable disclosure
- Questionable documentation
- Other ________________________________

Patient Management (Coordination of Care Issues)
- Questionable delegation
- Questionable tracking or follow-up
- Questionable referral or consultation
- Questionable resource utilization
- Questionable admit to non-surgeon
- Other ________________________________

Clinical Performance
The range of actual or potential clinical care rendered (activities and/or decisions) that led to the event.

Pre-Intervention
- Pre-assessment or care prior to arrival
- Inaccurate diagnosis
- Incomplete diagnosis
- Delayed diagnosis
- Missed injury
- Delayed transfer in

1 Missed injury: An injury discovered after the patient is discharged or after death (includes those found on autopsy).
- Patient refused care or transport at scene
- Other ______________________________________

**Intervention**
- Correct procedure with complication
- Complicated injury / disease process
- Correct Procedure, Incorrectly performed
- Correct Procedure, But Untimely
- Omission of Essential Procedure
- Procedure Contraindicated
- Procedure Not Indicated/ Failure to follow EBP Guidelines
- Wrong Patient
- Other ______________________________________

**Post-Intervention**
- Correct diagnosis and prognosis
- Unexpected Outcome
- Inadequate post-procedure/discharge instructions
- Inadequate discharge planning
- Other ______________________________________

**DOMAIN**
The characteristics of the setting in which an incident occurred and the type of individuals involved.

**Setting**

**Pre-hospital**
- Scene
- Ground Transport
- Air Transport
- Transfer Coordinating Center
- Transferring Facility
- Medical Control / Dispatch
- Helipad

**Hospital**
- Emergency Department
- Trauma Resuscitation Bay
- Radiology
  - Plain films
  - CT scan
  - Interventional Radiology
  - MRI
• Laboratory
• Blood Bank
• Operating Room
• Post Anesthesia Care Unit
• Intensive Care Unit
• Step Down Unit
• General Floor
• Rehabilitation
• Outpatient (Clinic)
• Other ________________________________

Phase of Care

Setting

• Pre-triage
• Triage
• Medical Screening Exam
• Physician evaluation
• Resuscitation
• Diagnostics
• Interventions
• Waiting on disposition
• Transfer out process
• OR / definitive care
• Critical care
• Inpatient unit
• Rehabilitation
• Discharge planning / discharge placement
• Readmission
• Multiple casualties
• Mass Casualties

Time

• Weekday
• Weeknight
• Weekend/Holiday
• Shift Change
• On divert status
• Other ________________________________
Staff

Providers
- Emergency Physicians
- Trauma Surgeon
- Advanced Practice Provider
- Intensivist
- Neurosurgeon
- Orthopedic Surgeon
- Anesthesiologist
- CRNA
- Radiologist
- PM&R

Nurses
- Registered Nurse
- LPN
- Nursing Assistant
- Float Staff
- Other

Therapists
- Physical Therapist
- Occupational Therapist
- Respiratory Therapist
- Speech Therapist
- Respiratory
- Other

Cause
The factors and agents associated with the event.

Organizational System Factors
Structures and/or processes not under the direct control of the clinician. These may involve design, organization, orientation, training, maintenance, availability of information, staffing levels, physical environment, alarm systems, etc.

- Electronic Medical Record
- Resource Availability
  - Equipment
  - Personnel
  - Other
- Hand-off process
- Bed availability
- Inadequate or absent Policy or Patient Management Guideline
• Diversion
• Organizational culture
  o Coordination of care
  o Trauma center criteria compliance
  o Regulatory compliance
• Technical issues
• Medication issues
• Medical equipment issues
• Field Communication
• Field Triage / Care Prior to Arrival
• Transfer acceptance / Delayed Transport Services

**Human Factors**

**Providers / Advanced Practice Providers**

• Skill-based
  o Error in technique
  o Error in priorities
• Knowledge-based
  o Error in judgment
  o Error in diagnosis
• Rule Based
  o Protocol Compliance
  o Regulatory Compliance
  o Credentialing
• Negligence (*Failure to perform at the level of competence consistent with professional norms of practice and operation*)
• Recklessness (*Intentional deviation from professional norms of good practice and operation without cause*)
• Disruptive Behavior
• Other __________________________

Hospital Staff Factors
  __Nurse
  __Therapist
  __Pharmacist
  __Social Worker
  __Departmental issue

Skill based issue
  • Error in technique
  • Error in priorities

Knowledge base
  • Error in judgment
  • Knowledge deficit

Rule based
  • Protocol compliance
- Regulatory compliance
- Scope of practice issue

Behavior issue
- Negligence
- Recklessness
- Disruptive behavior

Patient Factors

*Failures related to patient characteristics or actions that are beyond the control of the practitioner*

- Uncooperative/noncompliant patient
- Signed out AMA
- Injury Severity
- Progression of injury
- Violence in home environment
- Substance abuse
- Emergency Detention psychiatric issues
- Suicidal
- Incidental finding identified in evaluation
- Unfunded patient
- Other ________________________________________

PREVENTION AND MITIGATION

*(Determination and action plan)*

Safety / Continuum of Care

- Address Patient Safety Goals
- Improve throughput and continuum of care
- Address regulatory compliance

Referrals

- Emergency Medicine peer review
- Trauma peer review
- Medical Staff peer review
- Other Service for review
- Other facility: __________
- EMS: __________
- Medical Control: __________
- Regional system
**Selected Initiatives**

Action plan will be written in SMART Goal format with defined outcome measures.

- Protocol development
- Develop Evidence-Bases Practice Management Guideline
- Education
  - Provider
  - Staff
  - Regional System
  - EMS / Air Medical
- Peer Review Committee
- Strategic Planning Needs
- Refer for Hospital Performance Improvement Review
- Refer to EMS for Review
- Refer to EMS Medical Director for Protocol Review
- Refer to Regional System for System PI
- Individual Counselling
- Ongoing Professional Practice Evaluation (OPPE)
- Change in Privileges
- Other __________________________

**Determination**

- Event without Opportunity for Improvement
- Event with Opportunity for Improvement in Trauma Center
- Event with Opportunities in the Region
- Mortality without Opportunity(ies) for Improvement in Trauma Center
- Mortality with Opportunity(ies) for Improvement in Region
- Unanticipated Mortality in Trauma Center

Other __________________________

**Monthly Dashboard**

**DEFINE**

**Trauma System Operations Committee**

The trauma system operations committee serves as the administrative oversight and system operational committee for the trauma program. The committee is chaired by the trauma medical director and co-chaired by the trauma program manager. The committee has membership from the various disciplines and departments that provide trauma care. The committee’s primary focus is to review the trauma
dashboard, trauma statistics, trauma outcomes and compliance to trauma center criteria to ensure the hospital is consistently meeting the requirements for trauma center verification.

The objectives of the committee are to ensure that:

- Anytown Hospital is meeting trauma center verification criteria each day for every patient
- Provide administrative leadership and oversight for performance improvement initiatives,
- Define improvement opportunities for improvement in the system
- Ensure that changes in trauma care within the system are appropriately communicated to all disciplines prior to implementation

The committee is charged with ensuring there is a coordinate effort for strategic planning for injury prevention, outreach education, patient safety and trauma related research. Members must maintain a minimum of 50% attendance at the scheduled meeting.

Committee Members:

Define for the institution.

Meeting Schedule

DEFINE

Hospital Integration

DEFINE

Standard Agenda

- Statistical Review
- Trauma Center Criteria Compliance
- Trauma Performance Improvement Initiatives
- Trauma Medical Director Update
- Trauma Liaison Reports
- Trauma Program Manager Report
  - Trauma Statistical Review
  - Trauma Dashboard Review
  - Injury Prevention
  - Outreach Education
  - Trauma Registry
- Assigned Department’s Monthly Update
  - Staffing issues
Confidentiality

Confidentiality / Data Management

All documents that support the Trauma Performance Improvement and Patient Safety Plan are confidential and maintained by the trauma program manager. These documents are filed and secured behind locked doors.

The trauma medical director reviews the Health and Safety Codes that define the confidentiality protection before each meetings. Participants sign in and agree to the confidentiality of the meeting and associated discussion. Individuals that do not follow the confidentiality standards are addressed for individual performance standards.

All trauma program staff sign an annual confidentiality statement and agreement. Issues of breach of confidentiality are subject to disciplinary action.

Trauma Registry Data Management

Trauma registry inclusion critera includes the following patients:

- **Patient type “Trauma” with “Core Data Set” (data included for state and TQIP submission)**
  - Patients must have **at least one** of the following injury diagnostic codes defined in the *International Classification of Diseases, Tenth Revision (ICD-10-CM)*:
    - S00-S99 with 7th character modifiers of A, B, or C ONLY. (Injuries to specific body parts – initial encounter)
    - T07 (unspecified multiple injuries)
    - T14 (injury of unspecified body region)
    - T20-T28 with 7th character modifier of A ONLY (burns by specific body parts – initial encounter)
    - T30-T32 (burn by TBSA percentages)

- **Excluding those patients with only the following isolated injuries: ICD-10-CM:**
  - S00 (Superficial injuries of the head)
  - S10 (Superficial injuries of the neck)
  - S20 (Superficial injuries of the thorax)
  - S30 (Superficial injuries of the abdomen, pelvis, lower back and external genitals)
- S40 (Superficial injuries of shoulder and upper arm)
- S50 (Superficial injuries of elbow and forearm)
- S60 (Superficial injuries of wrist, hand and fingers)
- S70 (Superficial injuries of hip and thigh)
- S80 (Superficial injuries of knee and lower leg)
- S90 (Superficial injuries of ankle, foot and toes)

In addition to the above **ICD-10-CM** requirements, patients must include one or more of the following:

- Admission to the hospital for injuries which occurred within the past 30 days OR
- Observation admission for injuries which occurred within the past 30 days OR
- Patients transferred into Parkland/out of Parkland by EMS (including air ambulance) for injuries which occurred within the past 30 days OR
- Traumatic deaths that occur in the Trauma Bay or ED, including DOAs

**Additional information:**

- The injury must be the primary diagnosis.
- **Example:** Patients with fractures due to pathological reasons (cancer) will be excluded from full data set entry
- If a patient is admitted to a medical service for medical reasons but also had an injury, the surgical service must follow the patient in house for evaluation/treatment of the injury in order to receive a Core Data Set.
- **Example:** Syncope and ground level fall. Facial fractures diagnosed. Seen by OMFS in the ED, and they signed off stating to follow-up in clinic. The patient gets admitted for a cardiology work-up. This patient would not get a Core Data Set.

- **Registrar Education and Training**
- **Registrar Inter-relator Reliability Review**
- **Registry Data Validation**

**Benchmarking**

Anytown hospital submits data to the American College of Surgeons (ACS) NTDB each quarter. In addition, Anytown Hospital has the opportunity to use the NTDB data to compare outcomes and benchmarking opportunities. (Level III trauma centers have the opportunity to participate in the TQIP Level III Project.) The annual report received from the NTDB is used to compare Anytown Hospital’s outcomes to the outcomes reported through the NTDB. Variances or outcomes where ATH’s performance is below the national outcomes are targets for performance improvement projects.
The medical director and/or the trauma program manager have the authority to develop performance improvement workgroups to address specific patient populations or injuries. (The TQIP Best Practice Guidelines published provide opportunities for specific projects.) The activities of all assigned performance improvement activities are reported through the Trauma System Operations Committee and included in summary reports to the hospital’s Quality XXXXXX.

The trauma medical director will define the plan for the review of the TQIP reports in conjunction with the trauma program manager and define the attendees for the meetings. All meetings discussion, minutes and activities are confidential. Reports are not disseminated outside the scheduled meetings.

**External Review / Verification**

Anytown Hospital’s Board of Managers have documented and signed the Board Resolution that supports ATH maintaining its trauma center verification by the ACS. This verification process is re-verified every three years. All criteria and essential personnel responses are reviewed through the performance improvement activities. The review activities are coordinated by the trauma medical director, trauma program manager and the vice president for trauma in collaboration with regulatory management.

The site survey activity and all associated reports, including the American College of Surgeons Committee on Trauma’s pre-review questionnaire and survey summary report are components of the trauma performance improvement and patient safety plan. All documents are considered confidential and protected. All reports are secured and maintained by the trauma program manager and are not disseminated outside the performance improvement meetings. Summary briefings are used to communicate findings.

**Conclusion**

The trauma medical director, trauma program manager and the senior vice president have the authority, oversight and responsibility for the trauma program at ATH, along with the responsibility of trauma patient care from pre-hospital notification to hospital discharge. In addition, these individuals are responsible for the trauma program’s integration with the regional trauma system development initiatives. Events identified with opportunities for improvement must have defined action plans that are tracked through the TPIPS process to ensure event resolution. Outcomes are compared to the national outcomes for trauma centers through benchmarking data. Activities are integrated with the hospital quality initiatives and plan. This ensures that the hospital, senior leaders of the hospital and eventually the Board of Managers are aware of the overall trauma outcomes and continual compliance to the trauma center criteria.