Tennessee's Trauma System

Trauma Program Manager Resource Guide

Tennessee Trauma System Administration

Logan Grant

Executive Director Health Facilities Commission

Caroline R. Tippens, Esq., CHC

Director, License & Regulation

Rob Seesholtz, MHA, BSN, RN, EMT-P

Trauma System Director

Robert.Seesholtz@tn.gov

Abby Cook, MBA, MSA, RN, CBN, CSSM, CNOR

Trauma System Assistant Director

Abby.Cook@tn.gov

Forward

Hello and welcome to your role as Trauma Program Manager (TPM). You are joining an amazing group of highly dedicated nurses across the state of Tennessee that are dedicated to the care of those injured in our state. As you know, traumatic injury can impact anyone. Trauma (unintentional injury) is the fourth leading cause of death in the United States and is the leading cause of death in individuals 1-44 years of age. The top three causes of injury and death in Tennessee are falls, motor vehicle crashes, and assaults.

Tennessee trauma centers and Comprehensive Regional Pediatric Centers (CRPCs) report the treatment of over 40,000 trauma patients per year.

Such a wide scale issue cannot be solved by a single entity or discipline. Providing optimal care for injured patients must be managed from a systems approach. This approach needs to be inclusive of prevention and mitigation, provision of acute and definitive care, and rehabilitation. These approaches must be supported by data, evidence-based practice, and research to be effective.

The Tennessee Health Facilities Commission (HFC) is the agency responsible for oversight of the statewide trauma system. The state trauma program utilizes trauma rules promulgated by HFC for evaluation of those facilities that are currently designated or wishing to become a state-designated trauma center. Facilities wishing to be verified by the American College of Surgeons (ACS) trauma verification process must successfully be verified before state designation can be granted. The ACS uses the most current version of the *Resources for the Optimal Care of the Injured Patient* as the standard for trauma center verification criteria.

As a Trauma Program Manager, you are a crucial part of the quality of trauma care injured patients receive in Tennessee. The program that you build will be integral to ensuring optimal care is received by injured Tennesseans and visitors across the state. A critical aspect of your role is the continual analysis of trauma care at your facility, along with coordinating the re-designation process for your facility.

As a Trauma Program Manager, you have taken on great responsibility, but you are supported by other Trauma Program Managers across the state to help you be successful. We look forward to working with you to ensure the optimal care of injured patients in Tennessee.

Sincerely,

Rob Seesholtz

Rob Seesholtz, MHA, BSN, RN, EMT-P | Trauma System Director

This manual is not intended to replace the individual trauma center's orientation process. This manual is intended to provide the Trauma Program Manager, who is new to the role, helpful tools in understanding their role.

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Introduction to the Trauma System

Trauma Care has evolved into a specialty in many local and regional hospitals over recent years. Trauma centers have established high quality, comprehensive medical services for patients. The public relies on trauma centers to provide quality care from initial injury to final disposition, whether at the local hospital or tertiary care center. Regardless of where the trauma program is located, it provides critical services in a timely manner to patients who often need lifesaving measures.

In November of 1982, the State of Tennessee EMS Advisory Council presented to the Board for Licensing Health Care Facilities a recommendation for a formal review of concerns regarding the designation of trauma centers for the state be considered.

Following this, in February of 1983, the Board for Licensing Health Care Facilities requested information be presented about the City of Memphis Hospital Trauma Center, to further define the need for action regarding trauma center designation. As a result of that presentation, a task force was created to survey and make recommendations concerning the development of trauma systems and the operations of trauma centers in the state.

Hospitals within the state of Tennessee may voluntarily seek designation as a trauma center. The intent of the trauma center designation is to identify hospitals within the state that make a commitment to provide a given level of care of acutely injured Tennesseans and visitors of the state of Tennessee.

The designation/verification of trauma levels is important in qualifying what essential services are offered at a hospital. The Tennessee Health Facilities Commission is responsible for the designation, or re-verification, of each Level I, II, III and IV hospitals on a three-year cycle. Those centers that are ACS verified are also on a three-year cycle for re-verification to ensure consistent practice standards and available resources. Basic definitions of each trauma level are outlined below.

Level I Centers undergo the review process by either the Tennessee Health Facilities Commission or the ACS-COT. A Level I Adult or Pediatric Trauma Center is a comprehensive regional resource that is central to the trauma system. A Level I Trauma Center can provide total care for every aspect of injury – from prevention through rehabilitation.

Key elements of a Level I Trauma Center include 24-hour in-house coverage by general surgeons, and prompt availability of care in specialties such as orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology, internal medicine, and critical care. Other capabilities include cardiac, hand, pediatric, microvascular surgery, and hemodialysis. The Level I Trauma Center provides leadership in prevention, public education, and continuing education of the trauma team members.

The Level I Trauma Center is committed to continued improvement through a comprehensive performance improvement program and an organized research effort to help direct new innovations in trauma care.

Level II Centers undergo the review process by either the Tennessee Health Facilities Commission or by the ACS-COT. A Level II Adult Trauma Center can initiate definitive care for all injured patients.

Key elements of a Level II Trauma Center include 24-hour immediate coverage by general surgeons, as well as coverage by the specialties of orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology and critical care. Tertiary care needs such as cardiac surgery, hemodialysis and microvascular surgery may be referred to a Level I Trauma Center. The Level II Trauma Center is committed to injury prevention and to continuing education of the trauma team members. The Level II Trauma Center is dedicated to a comprehensive performance improvement program.

Level III Centers undergo the review process by either the Tennessee Health Facilities Commission or by the ACS-COT. A Level III Trauma Center has demonstrated the ability to provide prompt assessment, resuscitation, and stabilization of injured patients.

Key elements of a Level III Trauma Center include 24-hour immediate coverage by emergency medicine physicians and the prompt availability of general surgeons and anesthesiologists. The Level III program is dedicated to continued improvement in trauma care through a comprehensive quality assessment program. The Level III Trauma Center has demonstrated prompt transfer protocols for patients requiring more comprehensive care at a Level I or Level II Trauma Center. A Level III Trauma Center is committed to the continued education of the nursing and allied health personnel or the trauma team. It must be involved with prevention and must have an active outreach program for its referring communities. The Level III Trauma Center is also dedicated to improving trauma care through a comprehensive quality assessment program.

Level IV Centers undergo the review process by the Tennessee Health Facilities Commission. A Level IV Trauma Center demonstrates the ability to provide optimum trauma care prior to transfer of patients to a higher-level trauma center.

Key elements of a Level IV Trauma Center include basic emergency department facilities and 24-hour laboratory coverage. The Level IV Trauma Center has demonstrated prompt transfer protocols for patients requiring more comprehensive care at a definitive care facility. The Level IV center is committed to continued improvement of these trauma care activities through a formal performance improvement program. The Level IV facility should maintain a good working relationship with the nearest Level I, II, or III trauma center

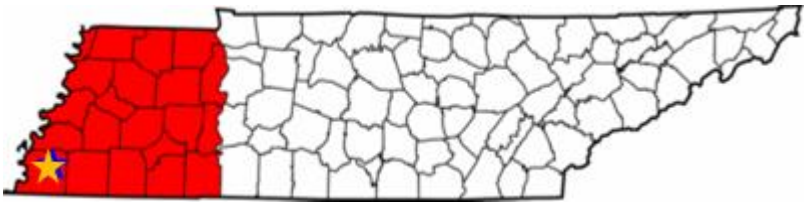
Comprehensive Regional Pediatric Centers (CRPC) are self-designated by a facility demonstrating its commitment to the level of care provided to pediatric patients of Tennessee. These facilities shall be capable of comprehensive pediatric care to acutely ill and injured children and shall have a pediatric ICU. A state **Pediatric Trauma Center** designation can be sought, and the process of review and designation is like the process for a state designated level I trauma, with specifics to pediatric care.

Tennessee Trauma Centers

West Tennessee

LEVEL I: ★

Regional One Medical Center
877 Jefferson Avenue
Memphis, TN 38103



CRPC: ★

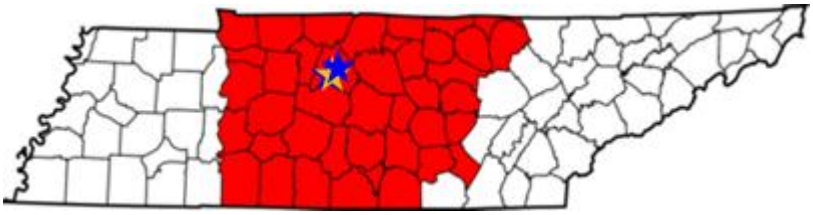
Lebonheur Children's Hospital
848 Adams Avenue
Memphis, TN 38103

Middle Tennessee

LEVEL I: ★

Vanderbilt University Medical Center
1211 Medical Center Drive
Nashville, TN 37232

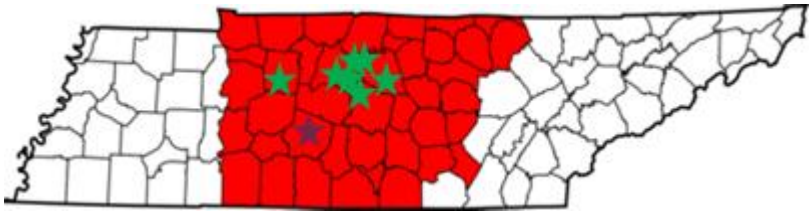
Tristar Skyline Medical Center
3441 Dickerson Pike
Nashville, TN 37207



CRPC: ★

Monroe Carell Jr. Children's Hospital
2200 Children's Way
Nashville, TN 37232

Middle Tennessee



LEVEL III: ★

Tristar Summit Medical Center
5655 Frist Boulevard
Smyrna, TN 37076

Tristar Horizon Medical Center
111 US 70
Dickson, TN 37055

Metropolitan Nashville General Hospital
1818 Albion Street
Nashville, TN 37208

Tristar StoneCrest Medical Center
200 StoneCrest Boulevard
Smyrna, TN 37167

Tristar Hendersonville Medical Center
355 New Shackle Island Road
Hendersonville, TN 37075

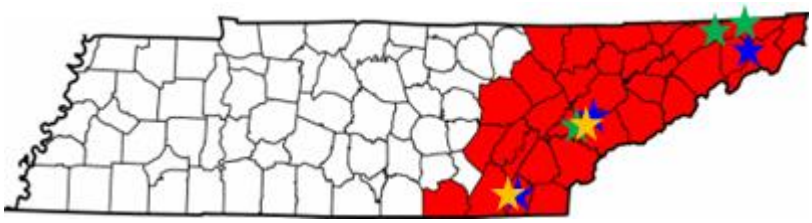
Sumner Regional Medical Center
555 Hartsville Pike
Gallatin, TN 37066

Tristar Hendersonville Medical Center
355 New Shackle Island Road
Hendersonville, TN 37075

LEVEL IV: ★

Maury Regional Medical Center
1224 Trotwood Avenue
Columbia, TN 38401

East Tennessee



LEVEL I: ★

University of Tennessee Medical Center
1924 Alcoa Highway
Knoxville, TN 37920

Erlanger Medical Center
975 E. 3rd Street
Chattanooga, TN 37403

Johnson City Medical Center
200 N State of Franklin Road
Johnson City, TN 37604

LEVEL III: ★

Bristol Regional Medical Center
1 Medical Park Boulevard
Bristol, TN 37620

Holston Valley Medical Center
130 W. Ravine Road
Kingsport, TN 37660

Tennova Healthcare
Turkey Creek Medical Center
10820 Parkside Drive
Knoxville, TN 37934

CRPC: ★

East Tennessee Children's Hospital
2018 Clinch Avenue
Knoxville, TN 37916

Erlanger Children's
910 Blackford Street
Chattanooga, TN 37403

Suggested Job Responsibilities

Optimally, the Trauma Program Manager (TPM) has educational preparation and experience in the care of injured patients and is responsible for all aspects of the trauma program to include development, implementation, and evaluation. Ideally, the TPM supervises any ancillary staff needed to fulfill the requirements of the trauma program. A written job description will help define the role responsibilities and outline authority for accomplishing the goals of the trauma program.

It is the role of the TPM to assume the day-to-day responsibilities (this would include system issues and peer review) for performance improvement as applied to nursing and other ancillary personnel and should assist the Trauma Medical Director (TMD) in carrying out the same functions for the physicians. The TPM and the TMD share the responsibility for the success of the trauma team. Like all partnerships, the TPM and TMD must support each other, share a common vision, and mutually respect each other and the members of their team. The TMD and TPM report to a different hierarchy, but both share the duty of ensuring high-quality trauma care. A clear delineation of roles and responsibilities is crucial from the outset. A trauma specific organization chart should clarify the hierarchy of the program. Boundaries, timelines, and working relationships need to be defined and discussed candidly. The logistics of accomplishing the work need to be honestly assessed and assigned. How the TMD and TPM work together as a team, who is accountable for what, and the best means of communicating (phone, email, in person-meetings) are key aspects of building the relationship.

Ideally, the TPM should be supported by the ranking administrative structure and have sufficient resources to accomplish the requirements of a highly functioning trauma system. This can include, but is not limited to, clinical nursing personnel to help fulfill outreach, performance improvement, and discharge planning, registry staff, injury prevention coordinator, and trauma nurse clinicians. Administrative and budgetary support needed for the trauma program depends on the size of the hospital and the volume of trauma patients cared for by the facility.

The suggested qualifications and activities the TPM should participate in, will be outlined in the subsequent chapters, but should include the following:

- Program Management
- Education
- Performance Improvement
- Budget & Administration
- The Trauma registry

- Research – Level I
- Community, state, and national involvement in trauma care systems
- Hospital Designation and Re-Designation
- Disciplinary Action

Program Management

Trauma protocols should be evaluated for content based on the individual facility's protocol review policy but should be reviewed and updated within the last five years to assure compliance with national standards and practice updates. Practice management guidelines go together with protocol development and the guidelines should be evidence-based. The goal of a practice management guideline is to decrease variation in practice by following established standards of care. Practice management guidelines can be clinical (i.e. massive transfusion protocol) or administrative (i.e. trauma on-call response time guidelines). Appropriate stakeholders should be consulted during the development of a practice management guideline, to assure compliance with the most up-to-date standards and to increase buy-in from providers. All practice management guidelines should be monitored for compliance and achievement of desired outcomes. This can be accomplished through the trauma program's performance improvement process.

An important take-away from this section is: DO NOT REINVENT THE WHEEL. Chances are, if the trauma care facility needs a practice management guideline other facility have already developed something similar. Use available resources to find what others have developed and tailor it to the facility's needs. Resources available include, but are not limited to, the following examples:

- Designated trauma centers within the state or nationwide
- Your facility may belong to a healthcare system, contact the TPM at partnering facilities
- Several Professional Organizations share best practice guidelines on their websites

Other TPM duties may include monitoring care of in-hospital patients to assure ease of transition from pre-hospital care to discharge, including transfer to definitive care and/or rehabilitation. The smoother this process is at the facility, the better functioning the trauma program will be and the faster patients will travel through the trauma continuum on their road to recovery. The TPM may also serve as a resource for clinical practice, including answering practice questions, educating staff, and widely distributing practice guideline updates to assure high-quality evidence-based care is being followed by the trauma program.

The TPM should consider participation in the Emergency Room, Trauma Intensive Care Unit, and Trauma Medical-Surgical staff meetings. Participation in these meetings will provide visibility to the job duties of the TPM, provide a venue for information sharing, and provide a forum for education on trauma care. Becoming an active member of hospital committees that have a stake in trauma, will allow the TPM to build relationships with subject matter experts which, in turn, will strengthen the program through evidence-based practice sharing and buy-in. Active participation in unit-based committees will also provide the TPM with a resource for barriers to providing safe, effective care to trauma patients. It will be the work of the trauma program to help remove those barriers and work towards providing optimal care to the injured patient.

Education

Other key responsibilities include intra-facility and regional professional staff development, participate in case review, implement practice guidelines, and direct community trauma education and prevention programs.

Intra-facility and regional professional staff development means reaching out to partners in the facility's surrounding area, including within the service area the facility belongs, to develop all members of the trauma team who may care for injured patients in the surrounding community. This includes EMS or pre-hospital personnel, flight crews, emergency room personnel, OR and in-patient nurses, as well as laboratory and radiology staff members who play a vital role in the optimal care of the injured patient. Educational programs are available through definitive care facilities and professional organizations that support the professional development of trauma care providers. Examples include:

- Rural Trauma Team Development Course (RTTDC)
- Trauma Care after Resuscitation (TCAR)
- Trauma Nursing Core Course (TNCC)
- Trauma Certified Registered Nurse (TCRN)
- Trauma Outcomes and Performance Improvement Course (TOPIC)
- Advanced Trauma Life Support (ATLS)
- Advanced Trauma Care Nurse (ATCN)

Implementing practice guidelines, as previously discussed, should optimally be done in concert with stakeholders at the trauma care facility. Wide distribution of the change in practice, with clear explanations for the change, the evidence behind the change, and how patients will be better served by the practice change will contribute to buy-in from practitioners. It is up to the trauma program to decide the best way to disseminate the change in practice. Email, fliers, and unit meetings are just some ways in which practice guideline changes can be distributed.

Community trauma education and prevention programs can be a unique way in which the trauma care facility provides outreach to the surrounding community, using registry data and community needs as a foundation. For example, if the trauma care facility is noticing an uptick of pediatric ATV accidents without associated safety equipment usage, the TPM might conduct a program at the local school concerning the importance of utilizing proper safety equipment while riding. Many facilities utilize various programs already established and tailor outreach to the communities. Remember to consult stakeholders for ideas and funding opportunities when initiating a program.

Performance Improvement

The TPM should monitor clinical processes and outcomes, and system issues related to the quality of care provided; develop quality filters, audits, and case reviews; identify trends and sentinel events; and help outline remedial actions while maintaining confidentiality.

This may very well be the most important job function of the TPM. The continual monitoring, identification, and reconciliation of issues identified by the program that led to suboptimal care of the injured patient is paramount in the development of a high-quality trauma program. When beginning to embark on a program for Performance Improvement and Patient Safety (PIPS), helpful resource materials for high-quality PIPS include:

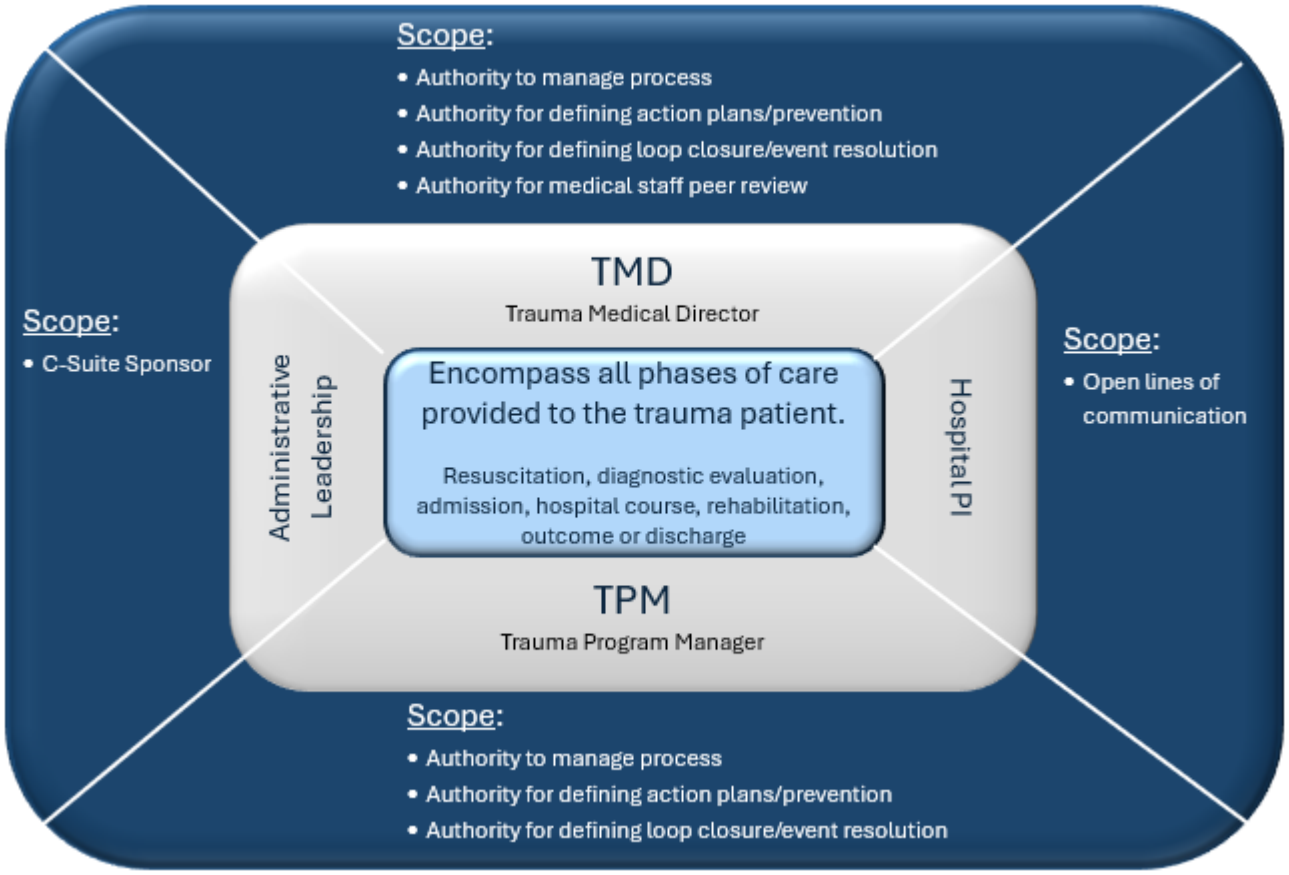
- Individual Hospital Quality Programs
- Healthcare Coalition Partners or Health Network Affiliates
- Several Professional Organizations share best practice guidelines on their websites

There are always opportunities for improvement in all levels of trauma centers. High-quality health care is a constantly moving target and the less that is done to monitor, assess, and improve a trauma program, the farther the trauma program will be left behind. The general principle of Performance Improvement and Patient Safety (PIPS) is to improve the value of care delivered to the injured patient.

The value of care provided to patients can be improved by focusing on the quality of the process of care and the quality of the outcome of care. Components of a success Performance Improvement and Patient Safety program will include such things as process and peer reviews that assess the efficacy, safety and cost of care.

As the TPM, it will be imperative that the formation of a comprehensive PIPS program is of the highest priority. A PIPS written plan must be in place for a trauma center to be verified at any level. A PIPS written plan establishes the structure of the PIPS program and how it is operationalized, ensures continuity and expectations for all participants in the process, is an educational tool for new staff, and outlines the linkage to the hospital-wide PIPS program. It should contain the following: the philosophy/mission/vision of the institution, the authority and scope of the program, the indicators/audit filters, a process for event identification, the management of data, the committee structure and membership, roles and responsibilities, the levels of review, peer determinations, corrective action planning and implementation, event resolution strategies and re-evaluation, confidentiality of data, and integration into the hospital-wide PIPS process.

The first steps in writing a PIPS plan are establishing authority for the program, establishing the team members and their roles and responsibilities, and formalizing a plan for collaboration with the institutional PIPS program. Authority and scope for the PIPS program may look something like the following diagram:



The Trauma Performance Improvement and Patient Safety (PIPS) committee is responsible for trauma patient clinical outcomes, processes of care, and coordination of care. It is responsible for formulating the PIPS plan and putting the plan into action. The PIPS committee is responsible for setting goals and reviewing the PIPS plan annually to ensure the plan reflects the most up-to-date standards and outcome measures.

After the committee membership, scope, authority and connections to the institutional PIPS are established in the PIPS plan, the process for adverse event identification can now be outlined. This section of the PIPS plan will answer the question, how does the TPM get notified of a trauma patient having entered the hospital's care at any point in time and how is an adverse event identified?

Many TPMs work with their hospital's coding/billing department and IT to establish reports generated through the electronic medical record to identify all trauma patients who meet inclusion criteria for the state trauma registry. After trauma patient identification, charts are then taken through

the review process. A good way to establish consistent, non-emotional review of charts is through utilization of a chart audit tool. The chart audit tool will have benchmarks, set by the trauma program, for determining if the patient received expert care in a timely manner. This chart audit tool can help the TPM determine if an adverse event occurred or if the care of the injured patient did not satisfy the trauma program's established benchmarks. The process for how the trauma program identifies patients, performs a consistent chart review, and can identify adverse events should be outlined in the PIPS plan.

After completion of the chart review, the PIPS plan should then provide direction on what level of review the chart should proceed. The levels of review for evaluation of charts are set by the trauma program. In general, the primary review is done by the TPM or the PI Nurse. This is that initial walk-through of the chart with the chart audit tool. If there are no issues identified that caused harm to the patient or all program benchmarks were met, review of the medical record may be complete at this time. No action or loop closure is necessary. If an event is found that did cause harm to the patient or if a program's benchmarks were not met, then a secondary level of review should be performed. This secondary review is typically done by the TMD. After review by the TMD, an action plan or loop closure may proceed at this time. If the TMD determines the case should go to tertiary review for a provider issue, then the chart review is passed to the multidisciplinary peer review committee. If the TMD determines there is a system issue that needs to be brought for tertiary review, then the system issue is brought to the Trauma PIPS committee or passed to the director of the department in which the system issue was identified. This tertiary review can also be put through an external peer review process or even passed to pre-hospital EMS PIPS programs, depending on where the event occurred and who was involved. The responses from these tertiary reviews should be collected and continuously monitored for follow-up planning and assurance of loop closure. All these steps should be outlined in the Trauma PIPS Plan. Occasionally, a quaternary review, either by the hospital quality committee or external peer review, is warranted. This review may involve the examination of extraordinary cases or simply serve to validate the PIPS process.

The actions that can result from performance improvement reviews fall into any of several categories. Education, counseling, track/trend, guideline development, and/or a PIPS team project can result out of an effective PIPS process. These actions should then be monitored for their effectiveness of event mitigation.

An important factor in determining whether an event needs to pass to the secondary review or tertiary review is the level of harm. A level of harm can be determined to be no harm or no detectable harm, minimal harm, moderate harm, severe harm, or death.

- No harm is defined as the standard of care was provided with some deviations with no impact to the patient.

- No detectable harm is the event occurred but did not reach or impact the patient and no treatment was necessary.
- Minimal harm is defined as an impact to the patient, the patient is symptomatic, symptoms are mild, loss of function is minimal or intermediate by short term, and no or minimal intervention (extra observation, investigation review, minor treatment) is required.
- Moderate harm is when the patient is symptomatic, requiring an intervention and there is an increase in length of stay or long term loss of function, there may be a necessitation of higher level of care, but this can be expected to resolve prior to discharge.
- Severe harm is when the patient is symptomatic, requires a life-saving intervention or major surgical/medical critical care intervention, there may be a shortening of life expectancy or major permanent or long term harm or loss of function, there may have been an error in judgement, deviation from practice, or system delays which result in an impact to quality of care and quality of life.
- Death, of course, is when death was caused or brought forward by the event.

There should be a pre-determined level of review, set by the trauma program, which occurs at every determined level of harm. Primary, or level one reviews, typically would occur for all patients who qualify as no harm or no detectable harm. A secondary, or level two review, would then proceed for all subsequent levels of harm. And a tertiary, or level three review, would typically proceed for charts identified as those with an opportunity for improvement, where harm was determined to impact the patient, and that contain a provider issue. As the TPM works through this process, the next step, after establishing what the levels of review are going to be for each established level of harm, is to develop or use a PIPS audit form that works for the level of trauma care facility. A PIPS audit form creates a standardized approach to chart review, it produces a non-emotional validation of the patient chart, it can be used concurrently or retrospectively, and it helps to determine the taxonomy of the event.

Determining event taxonomy helps the TPM lay out, in plain language, the impact to the patient, the type of event, the domain, the cause, prevention of the event, and determination of the event outcome. The impact can be determined by the TPM. The impact denotes if the patient had any level of physical harm, psychological harm, legal issue, or socioeconomic (unnecessary treatment/ procedure) impact. The domain of the event is where the event occurred. For example, pre-hospital, operating room or intensive care unit. The cause of the event is the factors and/or agents that led to the incident as either system based, or human based. And then prevention of the event has prescribed prevention efforts that can be chosen. The determination of the event can be system related, or provider related.

The PIPS plan should also include how the facility is going to handle data management and confidentiality. Using words like “not discoverable” and “not public” or “confidential for peer review

only" when using patient sensitive information during meetings and/or collecting meeting materials after meeting where confidential patient information is shared are some examples of safe patient information handling. These data management processes should be detailed in the PIPS plan.

After an event goes through the PIPS process there may be a corrective action plan created. This corrective action plan can either be system based or individual based or both. It is important to frame this corrective action plan as a SMART goal. A SMART goal is specific, measurable, achievable, relevant, and time bound. This helps provide clear guidance and measurability to the corrective action and makes it easier to determine the effectiveness of the plan for future event mitigation.

The PIPS process is very involved but is perhaps the most important role of the TPM. When programs are consistently adapted to overcome system or provider barriers it helps assure the optimal care of injured patients is consistent across the continuum of care.

Budget & Administration

Administrative and budgetary support needed for the trauma program depends on the size of the hospital and the volume of trauma patients cared for by the facility. A facility having a dedicated annual budget for the trauma program is a required element for designation. With the assistance of the hospital administration and the Trauma Medical Director, the Trauma Program Manager is involved in coordinating the budgetary process for the trauma program. The expectation of a portion of the trauma budget at any trauma designated facility is to support the TPM in completing educational, clinical, research, administrative, and outreach activities for the trauma program.

Tennessee's Trauma Fund receives moneys from a two-cent per pack cigarette tax and funding designated by the General Assembly. The Trauma Care Advisory Council (TCAC) is responsible for the recommendations made to HFC's Executive Director for payments from the State Trauma Fund to the trauma centers.

Funds from the Trauma Fund are categorized into readiness costs and costs for uncompensated care. All hospitals in the state of Tennessee are eligible for uncompensated care funds. Designated trauma centers and Comprehensive Regional Pediatric Centers are eligible for the funds designated for readiness costs for their commitment in providing a higher level of care.

Serving as a liaison to administration may be as simple as meeting regularly with the facility's Director of Nursing, or equivalent, to inform him/her of the trauma program and its accomplishments. You may also need to keep the C-suite updated on any difficult cases or sentinel events. Hospital administration can provide resources to the trauma program to help it be successful. Keeping up regular communication can only help to ensure the trauma program has the resources it needs to optimally care for the injured patient.

Representing the trauma program on various hospital and community committees is an excellent way to bring the trauma program visibility within the hospital and in the community at large. Many hospitals have pain, fall, skin, quality, critical care, or various other committees that, along with the individual trauma PIPS and multidisciplinary committees, can help make the program well-rounded and visible to staff. Participation in these various committees can also lead to an easier time with buy-in, when it comes to practice changes instituted by the trauma program. It will be beneficial to the program, if the TPM looks into the healthcare coalition's emergency preparedness activities and tries to engage with key stakeholders. Healthcare coalitions may also have access to grants and resources otherwise unavailable to the TPM. Community committees may be a little harder to come across, but efforts to volunteer with community based organizations may be beneficial to building bridges within the surrounding area, so that, when the program does have a targeted outreach activity, there may be already established partnerships with mutual goals to utilize.

The Trauma Registry

HFC uses ImageTrend as their software vendor for the collection of Tennessee's trauma registry data. The website for the registry can be found at: https://tennessee.imagetrendregistry.com. Access to the system can be granted by trauma program administrators. Current contact information can be found on the first page of this document.

Inclusion criteria for incidents that should be entered into the trauma registry can be found in the data dictionary developed collaboratively by TCAC and HFC's Trauma Program. The data dictionary provides the TPM with information on the required field elements for quarterly file submissions. Tennessee uses a combination of the NTDB required elements as well as Tennessee specific elements for data collection.

Step by step instructions on how to submit data to the state registry can be obtained by trauma program leadership. Direct any questions or issues related to the ImageTrend registry to HFC Trauma Program leadership.

While filling in fields, it is important to assure the accuracy of each incident. The state trauma system may use the registry to guide research, injury prevention initiatives, develop education and training programs, and advise TCAC and members of the General Assembly on injury data across the state. On a local level, TPMs should use the registry to guide performance improvement activities, tailor community outreach and injury prevention activities, and develop education and training programs for staff members of their facilities.

Research

Research is only required for designation for a Level I trauma center; however, it is encouraged that all designated trauma centers in the state of Tennessee actively participate in quality focused reviews of the care they are providing.

Some important resources that discuss trauma research and evidenced-based practice are listed in the resources section of this document.

Please contact the State Trauma Program Administrators for any additional information.

Community and National Involvement

Development of trauma care systems in your community means acting as a liaison between EMS, Hospital Personnel, Definitive Care Facilities, Skilled Nursing Facilities, Home Health Care, Nursing Homes, and Rehabilitation Facilities located in your community. Acting as a liaison provides the TPM with the ability to help facilitate a smooth transition of care for trauma patients across the continuum and analyze care at a system level. Participation in the community as a liaison also helps the TPM affect change in the trauma program by providing connections and building relationships between facilities. Participation in the local Healthcare Coalition or Service Area can provide important bridges needed to establish relationships across the trauma spectrum.

State level engagement in the trauma system can occur in many ways. Participation in the Tennessee Trauma Care Advisory Council (TCAC) provides the TPM with a resource pool of coordinators, registrars, and medical directors across the state. Tennessee has a robust history of system development and has an established a Trauma Care Advisory Council (TCAC). Participation in attendance at these meetings allows the trauma coordinator to have a voice in system development across the state. TCAC has a variety of subcommittees which host open meetings and are available for listeners to provide input. These committee dates, times, and locations can either be found on the State of Tennessee Health Facilities Commission Trauma System website or by contacting the state Trauma System Administrators.

National participation can be accomplished through joining national organizations. TPMs can be active and engaged in the trauma care facility at all designation levels and regions of the state.

For more ways to get involved, contact the State of Tennessee Trauma Program Administrators.

Hospital Designation & Re-Designation

Hospital Designation– State

The process of designation and redesignation is voluntary on the part of hospitals in the state. It is meant to identify those hospitals that make a commitment to provide a given level of care of the acutely injured patient. Knowledge of statewide trauma care capabilities and the use of trauma triage protocols will enable providers to make timely decisions, promote appropriate utilization of the trauma care delivery system, and ultimately save lives.

The first step in seeking trauma level designation is the submission of the application. Healthcare facilities wishing to apply will complete the application electronically. A link to this application is located in the references section of this document. Completed applications are submitted to the HFC's Trauma System leadership. If any items are deficient in the application, the Trauma System leadership will communicate to the facility in writing within 30 days of review and the facility shall then have 30 days to submit any of the information needed. Once all necessary information is received, arrangements will be made for a provisional site visit.

The Trauma Program will then consult with approved in-state site reviewers and the Tennessee Chapter of the American College of Surgeons for assistance in identifying the physician site reviewers who will participate in the facility site review. For those facilities seeking a Level I or Level II designation, the site review team will consist of an out-of-state trauma surgeon from a Level I trauma center, a trauma surgeon from an in-state Level I trauma center, and a trauma program manager from an in-state Level I center. For centers seeking state designation at Levels III or Level IV, the site team will consist of a trauma surgeon and a trauma program manager from an in-state Level I trauma center. The in-state reviewers will be utilized from other grand divisions from the facility being reviewed. All site reviews, regardless of level of designation sought, will include the Tennessee HFC Trauma System Director and/or Assistant Director.

The site review will follow a standard schedule to include: trauma program overview, tour of the facility, chart review, process improvement documentation, call schedule review, site team closed meeting, and a presentation of the findings to the facility.

Upon conclusion of the site review, if the team does not cite any deficiencies and the facility is otherwise compliance with all applicable standards, functional provisional status of the applicant can be approved for a period of one year. At the end of the provisional status year, a full designation site visit will be conducted by a review team comprised of the same type of members as their provisional review.

The site review team lead will generate the final report with input from the other members of the team. The site visit report will be submitted within 60 days of completion of the site visit.

Trauma system leadership will present the final report to the Commission. If no deficiencies were cited and the center seeking designation complies to all applicable standards, the team shall recommend the facility be confirmed as a designated trauma center for a period of 3 years.

Re-Designation

For center who have already been designated by the Commission, trauma system leadership will contact the facility at least 60 days prior to a re-designation review to inform them of the upcoming site visit. The trauma site visit form (a link to this form is in the reference section of this document) and a schedule of the site review will be emailed to the facility to help them prepare for their visit.

As with the initial designation review process, a site review will occur, and the site review team lead will generate the final report. The final report will be presented to the Commission with the recommendation of continued designation at its current level for a period of three additional years.

ACS Verification

While verification through the American College of Surgeons is like the state designation process, it is a separate process. A facility may seek verification through the ACS, coordinating with the Health Facilities Commission trauma program to ensure leadership attendance at the review. If Trauma System leadership is unable to attend, the final report will be shared with the Health Facilities Commission Trauma Program leadership for presentation to the Commission if the facility is seeking reciprocal state designation.

Disciplinary Action

If during a site visit the review team identifies deficiencies, the facility's designation shall be placed on provisional status and the facility will have a period of no greater than thirty days to submit a corrective action plan (CAP) that includes the process for deficiency correction and a timeline for compliance. A focused review will be scheduled within one year through desk review or on-site review to ensure compliance of the CAP. Whether the review will be on-site or a desk review will be dependent on the scope of severity of the deficiency/deficiencies cited. *(Severity Deficiency Matrix)*

From The Trauma Center Site Review Policy:

If the team ascertains that deficiencies have not been corrected within one (1) year, whether through desk review or an on-site visit, the center must present an explanation to the Commission at its next scheduled meeting.

- Noncompliant with up to two Type II standards – the centers designation shall be placed on provisional status and the center shall have a period not to exceed thirty (30) days to submit a corrective action plan (CAP) that shall include the process for deficiency resolution and a timeline for compliance. A focused review will be scheduled within one (1) year either through a desk review or on-site review to ensure compliance, if deemed necessary by the site review team.
    - If program passes focused review, full designation recommendation.
    - If program does not pass focused review, the center must present an explanation to the Commission at its next scheduled meeting.
- Noncompliant with any Type I standard or Noncompliant with three or more Type II standards – the centers designation shall be placed on provisional status and the center shall have a period not to exceed thirty (30) days to submit a corrective action plan (CAP) that shall include the process for deficiency resolution and a timeline for compliance. A focused on-site review will be scheduled within one (1) year to ensure compliance.
    - If program passes on-site focused review, full designation recommendation.
    - If program does not pass focused review, the center must present an explanation to the Commission at its next scheduled meeting.
- Immediate referral for termination of designation may be made by site review team if the deficiency is determined to be severe and pervasive.

References

State of Tennessee Health Facilities Commission Resources

Tennessee Trauma Center Designation Application

https://www.tn.gov/content/dam/tn/hfc/documents/HFC-Trauma_Designation_Form-February2025.pdf

Tennessee Trauma Center Rules

https://www.tn.gov/content/dam/tn/hfc/docuemnts/trauma/Trauma%20Center%20Rules%20-%20NEW%20HFC%20STATUTE.pdf

Tennessee Trauma Registry Data Dictionary (ACS)

https://www.facs.org/quality-programs/trauma/quality/national-trauma-data-bank/national-trauma-data-standard/

Tennessee Trauma Registry

https://tennessee.imagetrendregistry.com/

Tennessee Trauma Site Review Form

https://www.tn.gov/hfc/division-of-licensure-and-regulation/trauma.html

Additional Resources

Air and Surface Transport Nurses Association

http://astna.org/

American College of Surgeons -

www.facs.org

American College of Surgeons Committee on Trauma

https://www.facs.org/quality-programs/trauma

American College of Emergency Physicians

www.acep.org

American Hospital Association – Hospitals in Pursuit of Excellence

www.hpoe.org

American Nurses Association
http://www.nursingworld.org/

American Trauma Society
http://www.amtrauma.org/

Brain Trauma Foundation
www.braintrauma.org

Eastern Association for the Surgery of Trauma
www.east.org

Emergency Nurses Association
https://www.ena.org/

Injury and Violence Prevention Program - State of Tennessee
https://www.tn.gov/health/health-program-areas/fhw/injury-and-violence-prevention-programs.html

Institute for Healthcare Improvement
www.ihi.org

National Academy of Medicine
https://nam.edu/

Pediatric Trauma Society
www.pediatrictraumasociety.org

Society of Trauma Nurses
http://www.traumanurses.org/

Western Trauma Association
www.westerntraumaassociation.org

Thank you for your dedication to the trauma system of the state of Tennessee!

For any additional assistance or resources, please contact your Trauma System leadership team.