

Basic (Level IV) Trauma Facility Criteria Guidance

Basic (Level IV) Trauma Facility - provides resuscitation, stabilization, and assessment of injury victims and either provides treatment or arranges for appropriate transfer to a higher level designated trauma facility; provides ongoing educational opportunities in trauma related topics for health care professionals and the public; and implements targeted injury prevention programs.

The purpose of this document is to provide guidance (as examples) on approaches to fulfill each of the criterion included in the Texas Trauma Facility Criteria - Basic (each criterion is listed and followed by an example of approach to meet criteria). This is provided to assist hospital representatives in working to prepare their facility for Level IV designation. For further clarification of any criterion required, please contact a member of Designation Team in the Office of EMS/Trauma Systems Coordination. Contact information is available on the EMS/Trauma Systems website: www.dshs.state.tx.emstraumasystems.

Basic (Level IV) Essential Criteria	Guidance	
A. TRAUMA PROGRAM	<i>The administrative structure of the hospital should demonstrate institutional support and commitment and must include an administrator, medical director and TPM/TNC. Sufficient authority of the trauma program to achieve all programmatic goals should be reflected in the organization structure.</i>	
<p>1. An identified Trauma Medical Director (TMD) who:</p> <ul style="list-style-type: none"> • is currently credentialed in Advanced Trauma Life Support (ATLS) or an equivalent course approved by the Department of State Health Services (DSHS). • is charged with overall management of trauma services provided by the hospital. • shall have the authority and responsibility for the clinical oversight of the trauma program. This is accomplished through mechanisms that may include: credentialing of medical staff who provide trauma care; providing trauma care; developing treatment protocols; cooperating with the nursing administration to support the nursing needs of the trauma patients; coordinating the performance improvement (PI) peer review; and correcting deficiencies in trauma care. <p>a. There shall be a defined job description and organizational chart delineating the TMD's role and responsibilities.</p> <p>b. The TMD shall be credentialed by the hospital to participate in the resuscitation and treatment of trauma patients using criteria to include such things as board-certification/board-eligibility, trauma continuing medical education, compliance with trauma protocols, and participation in the trauma PI</p>	<p><i>Ultimate accountability for over site of the trauma program resides with the trauma medical director.</i></p> <p><i>All TMD responsibilities should be incorporate in the TMD job description. The organizational chart should include an open line between the TMD, TNC and hospital administration.</i></p>	E

Basic (Level IV) Essential Criteria	Guidance	
<p>program.</p> <p>c. The TMD shall participate in a leadership role in the hospital, community, and emergency management (disaster) response committee.</p> <p>d. The TMD should participate in the development of the regional trauma system plan.</p>		
<p>2. An identified Trauma Nurse Coordinator/Trauma Program Manager (TNC/TPM) who:</p> <ul style="list-style-type: none"> • is a registered nurse • has successfully completed and is current in the Trauma Nurse Core Course (TNCC) or Advanced Trauma Course for Nurses (ATCN) or a DSHS-approved equivalent. • has successfully completed and is current in a nationally recognized pediatric advanced life support course ((e.g. Pediatric Advanced Life Support (PALS) or the Emergency Nurse Pediatric Course (ENPC)). • has the authority and responsibility to monitor trauma patient care from ED admission through operative intervention(s), ICU care, stabilization, rehabilitation care, and discharge, including the trauma PI program. <ol style="list-style-type: none"> a. There shall be a defined job description and organizational chart delineating the TNC/TPM's role and responsibilities. b. The TNC/TPM shall participate in a leadership role in the hospital, community, and regional emergency management (disaster) response committee. c. Trauma programs should have a minimum of .8 FTE dedicated to the TNC/TPM position. d. The TNC/TPM should complete a course designed for his/her role which provides essential information on the structure, process, organization and administrative responsibilities of a PI program to include a trauma outcomes and performance improvement course ((e.g. Trauma Outcomes Performance Improvement Course (TOPIC) or Trauma Coordinators Core Course (TCCC)). 	<p><i>Trauma nurse coordinator/trauma program manager - a registered nurse with demonstrated interest, education, and experience in trauma care and who, in partnership with the trauma medical director and hospital administration, is responsible for coordination of trauma care at a designated trauma facility. This coordination should include active participation in the trauma performance improvement program, the authority to positively impact care of trauma patients in all areas of the hospital, and targeted prevention and education activities for the public and health care professionals.</i></p> <p><i>The TNC/TPM assumes the day to day responsibility for process and performance improvement activities as they relate to nursing and ancillary personnel and assists the trauma medical director in carrying out the same functions for the physicians.</i></p> <p><i>Time allotted for the position shall be sufficient to maintain all aspects of the trauma program including concurrent review of medical records, concurrent PI, registry input as well as injury prevention activities, RAC participation, BT/ disaster management, community liaison/committee participation or any activities which enhance optimal trauma care management. Actual time dedicated to the trauma program is volume dependent.</i></p>	E
<p>3. An identified Trauma Registrar who has appropriate training ((e.g.</p>	<p><i>This position may be included in TNC responsibilities. Additional FTE is volume dependant.</i></p>	E

Basic (Level IV) Essential Criteria	Guidance	
<p>the Association for the Advancement of Automotive Medicine (AAAM) course, American Trauma Society (ATS) Trauma Registrar Course)) in injury severity scaling. Typically, one full-time equivalent (FTE) employee dedicated to the registry shall be required to process approximately 500 patients annually.</p>		
<p>4. Written protocols, developed with approval by the hospital's medical staff for:</p> <p>a. Trauma team activation</p> <p>b. Identification of trauma team responsibilities during a resuscitation</p> <p>c. Resuscitation and Treatment of trauma patients</p> <p>d. Triage, admission and transfer of trauma patients</p>	<p><i>Standards of care for trauma patients should be established in all patient care areas and should guide the care provided for the pediatric and adult trauma patient. These standards should reflect nationally recognized standards for trauma care. Trauma standards of care are statements of the principles a facility follows when caring for trauma patients; they may include goals and objectives, identified tasks, patient outcome criteria, etc.</i></p> <p><i>a. The Trauma Team Activation Protocol outlines an organized approach delineating specific types of injuries/patient conditions (i.e., physiologic, anatomic and mechanism of injury) which activate the trauma team, lists team members, and defines notification and response times of the team, both in- house and off-site . This protocol must meet approved standards of care. The criteria for a graded (tiered) activation must be clearly defined and continuously evaluated by the trauma PI program.</i></p> <p><i>b. The trauma team consists of physicians, nurses and allied health personnel. The size of the trauma team may vary with hospital size and with the severity of injury, which leads to trauma team activation. The roles of each trauma team member, during the initial assessment and emergent care of the trauma patient should be outlined (what each team member does immediately upon arrival of a critical patient to determine priorities of care, the secondary assessment and interventions). This information may be developed as a separate protocol, or may be included in the Trauma Team Activation Protocol</i></p> <p><i>c. All team members should coordinate their interventions defined by established principles and guidelines (e.g. ATLS, TNCC). Resuscitation is an intense period of medical care where initial and continuous patient assessment guidelines, concurrent diagnostic and therapeutic procedures, and, at times, even commencement of surgery to save life or limb. Resuscitation is the group of coordinated actions performed to secure airway, support breathing, and restore circulation.</i></p> <p><i>d. An admission policy shall be in place describing the types of patients who are within the scope of the facilities capabilities and are consistent with the purview of a Level IV Trauma facility. Level IV facilities who have operative capabilities must clearly define the type of patients taken to the operating room. Hospital Triage Guidelines for Transfer must include a list of injuries/patient conditions, which have a high, index of suspicion for multiple injuries related to mechanism of injury and are beyond the hospital's capability to treat definitively; transfer procedures should begin immediately upon arrival of these types of patients. All existing state and federal laws related to patient transfer continue to be applicable (e.g. COBRA, EMTALA).</i></p>	<p>E</p>

Basic (Level IV) Essential Criteria	Guidance	
B. PHYSICIAN SERVICES		
<p>1. Emergency Medicine - this requirement may be fulfilled by a physician credentialed by the hospital to provide emergency medical services</p> <p>Any emergency physician who is providing trauma coverage shall be credentialed by the TMD to participate in the resuscitation and treatment of trauma patients of all ages to include requirements such as current board certification/eligibility, an average of 9 hours of trauma-related continuing medical education per year, compliance with trauma protocols, and participation in the trauma PI program.</p> <p>An Emergency Medicine board-certified physician who is providing trauma coverage shall have successfully completed an ATLS Student Course or a DSHS-approved ATLS equivalent course.</p> <p>Current ATLS verification is required for all physicians who work in the ED and are not board certified in Emergency Medicine.</p> <p>The emergency physician representative to the multidisciplinary committee that provides trauma coverage to the facility shall attend 50% or greater of multidisciplinary and peer review trauma committee meetings.</p>	<p><i>Trauma peer review may be incorporated in Medical Executive Committee.</i></p>	E
<p>2. Radiology</p>	<p><i>The use of teleradiology may fulfill this requirement. Reading turn around times shall be monitored in the trauma PI program. Should the physical presence of a radiologist be requested by a member of the trauma team, the response time of the radiologist shall be no longer than 30 minutes.</i></p>	D
<p>3. Anesthesiology-requirements may be fulfilled by a member of the anesthesia care team credentialed in assessing emergent situations in trauma patients and providing any indicated treatment.</p>		D
<p>4. Primary Care Physician-The patient's primary care physician should be notified at an appropriate time.</p>		D

Basic (Level IV) Essential Criteria	Guidance	
-------------------------------------	----------	--

C. NURSING SERVICES (for all Critical Care and Patient Care Areas)		
1. All nurses caring for trauma patients throughout the continuum of care have ongoing documented knowledge and skills in trauma nursing for patients of all ages to include trauma specific orientation, annual clinical competencies, and continuing education.	<i>An organized, trauma related orientation shall be in place for nurses assigned to the emergency room and all in-patient units caring for trauma patients, including a skills checklist. Staff attendance at trauma related continuing education presentations shall be documented. A credentialing mechanism to demonstrate maintenance of specific skills related to trauma patient care is encouraged. It is recommended that low volume/high risk procedures are included in annual clinical competency assessment.</i>	E
2. Written standards on nursing care for trauma patients for all units (i.e. ED, ICU, OR, PACU, general wards) in the trauma facility shall be implemented.	<i>Institutionally specific standards of nursing care shall be available such that a new nurse in the area can understand the expectations of care.</i>	E
3. A written plan, developed by the hospital, for acquisition of additional staff on a 24 hour basis to support units with increased patient acuity, multiple emergency procedures and admissions (i.e. written disaster plans).	<i>The hospital disaster plan may be used to fulfill this criteria. The plan shall be current, functional and appropriate. During the site survey questions will probably be asked about the hospital's participation in disaster drills (facility-wide, local and/or regional).</i>	E
4. 50% of nursing caring for trauma patients should be certified in their area of specialty (e.g. CEN, CCRN, CNRN, etc.).		D

D. EMERGENCY DEPARTMENT		
1. The published physician on-call schedule must be available in the ED.		E
2. Physician with special competence in the care of critically injured patients, who is designated member of the trauma team and who is on-call (if not in-house 24/7) and promptly available within 30 minutes of request from inside or outside the hospital.* <i>*Neither a hospital's telemedical capabilities nor the physical presence of physician assistants (PAs) or clinical nurse specialists/nurse practitioners (CNSs/NPs) shall satisfy this requirement. Additionally, PAs/NPs and telemedicine-support physicians who participate in the care of major/severe trauma patients shall be credentialed by the hospital to participate in the resuscitation and treatment of said trauma patients, to include requirements such as board certification/eligibility, an average of 9 hours of trauma-related continuing medical education per year, compliance with trauma protocols, and participation in the trauma PI program.</i>		E
3. The physician on duty or on-call to the emergency department (ED) shall be activated on EMS communication with the ED or after a primary assessment of patients who arrive to the ED by private vehicle for the major or severe trauma patient. Response time shall not exceed thirty minutes from notification (this	<i>The ED physician shall be activated upon recognition of any criteria meeting trauma team activation criteria. Response time shall not exceed thirty minutes for a second tier activation</i>	E

Basic (Level IV) Essential Criteria	Guidance	
criterion shall be monitored in the trauma PI program.)		
4. A minimum of one and preferably two registered nurses who have trauma nursing training shall participate in initial major trauma resuscitations.	<i>Trauma nurse training refers to TNCC/ATCN or any trauma specific education provided by the facility. This criterion does not eliminate the need for at least one RN with the requirements described in D. 6.</i>	E
5. Nurse staffing in initial resuscitation area is based on patient acuity and trauma team composition based on historical census and acuity data.		E
6. At least one member of the registered nursing staff responding to the trauma team activation for a major or severe trauma resuscitation has successfully completed and holds current credentials in an advanced cardiac life support course (e.g. ACLS or hospital equivalent), a nationally recognized pediatric advanced life support course (e.g. PALS or ENPC) and TNCC or ATCN or a DSHS-approved equivalent.		E
7. 100% of nursing staff have successfully completed and hold current credentials in an advanced cardiac life support course (e.g. ACLS or hospital equivalent), a nationally recognized pediatric advanced life support course (e.g. PALS or ENPC) and TNCC or ATCN or a DSHS-approved equivalent, within 18 months of date of employment in the ED or date of designation.	<i>There shall be formal documentation of course completion by emergency nursing staff.</i>	E
8. Nursing documentation for trauma patients is systematic and meets the trauma registry guidelines.	<i>Guidelines shall be in place which facilitates organized, thorough and concise documentation of the care provided to trauma patients. This documentation shall include the information identified in the "Texas Hospital Standard Data Set: Essential Data Elements".</i>	E
9. Two-way communication with all pre-hospital emergency medical services vehicles.	<i>The ability to communicate with ambulances transporting patients to the hospital must be maintained. This criteria may be accomplished by utilizing a telephone, cellular telephone, radio or other device</i>	E
10. Equipment and services for the evaluation and resuscitation of, and to provide life support for, critically or seriously injured patients of all ages shall include but not be limited to: a. Airway control and ventilation equipment including laryngoscope and endotracheal tubes of all sizes, bag-valve-mask devices (BVMs), pocket masks, and oxygen b. Mechanical ventilator c. Pulse oximetry d. Suction devices e. Electrocardiograph-oscilloscope-defibrillator	<i>Equipment for evaluation and resuscitation must be readily available in the ED. If shared with other department, the equipment must be accessible 24/7 with education to staff. Staff proficiency must be documented.</i> <i>a. Equipment sizes from neonates to large adults should be included.</i> <i>b. Any type of mechanical ventilator is acceptable.</i> <i>d. Standard mechanical suction devices such as a wall suction or a portable mechanical suction should be available.</i> <i>e. A defibrillator equipped with pediatric and adult paddles should be available.</i>	E E E E

Basic (Level IV) Essential Criteria	Guidance	
3. Blood typing and cross-matching.		D
4. Capability for immediate release of blood for a transfusion and a protocol to obtain additional blood supply.	<i>The Laboratory should have a procedure in place to release uncross matched blood. Policy or procedure should be in place to explain process in releasing large amount of blood units if needed.</i>	E
5. Coagulation studies	<i>Coagulation studies such as prothrombin time (PT) and partial thromboplastin time (PTT) should be available.</i>	E
6. Blood gases and pH determinations.	<i>The capability to perform analyses of arterial/venous blood to ascertain gas and pH values should exist.</i>	E
7. Drug and alcohol screening-toxicology screens need not be immediately available but are desirable (if available, results should be included in all trauma PI reviews).	<i>Toxicology screens need not be immediately available but are desirable. If available, results should be included in all performance improvement reviews</i>	D

F. RADIOLOGICAL CAPABILITIES (available 24 hours per day)		
1. Call-back process for trauma activations available within 30 minutes. This system shall be continuously monitored in the trauma PI program.		E
2. 24-hour coverage by in-house technician.	<i>If no in-house technician, call back response time needs to be monitored for timely response.</i>	D
3. Computerized tomography		D

G. PERFORMANCE IMPROVEMENT		
1. Track record. <u>On Initial Designation:</u> a facility must have completed at least six months of audits on all qualifying trauma records with evidence of “loop closure” on identified issues. Compliance with internal trauma policies must be evident. <u>On Re-designation:</u> a facility must show continuous PI activities throughout its designation and a rolling current three year period must be available for review at all times.	<i>In the trauma PI program case reviews need to include chart audits, documentation of findings, areas found to be out of compliance, critical review, process to address issues and evidence of loop closure(s).</i>	E
2. Minimum inclusion criteria: All trauma team activations (including those discharged from the ED), all trauma deaths or dead on arrivals (DOAs), all major and severe trauma admissions; transfers-in and transfers-out; and readmissions within 48 hours after discharge	<i>These patients, at a minimum, shall be evaluated in the trauma PI program.</i>	E
3. An organized trauma PI program established by the hospital, to include a pediatric-specific component and trauma audit filters (see "Basic Trauma Facility Audit Filters" list.)	<i>This function may be integrated into the hospital's infrastructure. The Trauma Medical Director's active involvement in the trauma PI program shall be evident</i>	E
a. Audit of trauma charts for appropriateness and quality of care.	<i>Charts shall be audited to assure quality of care and/or deviations from standards of care that may or may not be addressed by audit filters. All issues identified in the audit process shall be addressed through the trauma PI program. Charts shall also be reviewed to assure effective use of resources and appropriate</i>	E

Basic (Level IV) Essential Criteria	Guidance	
<ul style="list-style-type: none"> b. Documented evidence of identification of all deviations from trauma standards of care, with in-depth critical review c. Documentation of actions taken to address all identified issues d. Documented evidence of participation by the TMD. e. Morbidity and mortality review including decisions by the TMD as to whether or not standard of care was met. f. Documented resolutions “loop closure” of all identified issues to prevent future recurrences. g. Special audit for all trauma deaths and other specified cases, including complications, utilizing age-specific criteria. h. Multidisciplinary hospital trauma PI committee structure in place 	<p><i>referral of potential organ/tissue donors.</i></p> <p><i>e. The medical records of all trauma deaths and other identified cases shall be critically reviewed, in depth, to assure that appropriate, complete care was delivered according to identified standards of care.</i></p>	<p>E</p> <p>E</p> <p>E</p> <p>E</p> <p>E</p> <p>E</p>
<p>4. Multidisciplinary trauma conferences, continuing education and problem solving to include documented nursing and pre-hospital participation</p>	<p><i>This can be achieved thru already established multidisciplinary committees in the hospital where trauma system issues are discussed.</i></p>	<p>D</p>
<p>5. Feedback regarding major/severe trauma patient transfers-out from the ED and in-patient units shall be obtained from receiving facilities.</p>	<p><i>Prior discussions and process should be established with tertiary centers and assist with receiving timely and meaningful feedback. Development of forms/templates is encouraged.</i></p>	<p>E</p>
<p>6. Trauma registry - data shall be forwarded to the state trauma registry on at least a quarterly basis.</p>	<p><i>Establish and implement criteria for inclusion of trauma cases into the trauma registry. The hospital shall collect data in a facility and/or regional trauma registry, including the components of the "Texas Hospital Standard Data Set". The data included in the "Texas Hospital Standard Data Set" shall be forwarded to the state trauma registry on at least a quarterly basis. Monthly submissions of data to the trauma registry are recommended. (See Standard 19)</i></p> <p><i>Minimum criteria are defined by the State EMS/Trauma Registry as all patients with at least one injury ICD-9 diagnosis code between 800.00 and 959.9, including 940 - 949(burns), excluding 905 - 909 (late effects of injuries), 910 - 924 (blisters, contusions, abrasions, and insect bites), 930 - 939 (foreign bodies), AND who were admitted OR who died after receiving any evaluation or treatment or who died after receiving any evaluation or treatment or were dead on arrival OR who transferred into or out of the hospital.</i></p>	<p>E</p>
<p>7. Documentation of severity of injury (by Glasgow Comma Scale, revised trauma score, age, injury severity score) and outcome (survival, length of stay, ICU length of stay) with monthly review of statistics.</p>	<p><i>Trauma patient statistics shall be incorporated into the trauma PI program through collecting of data and documentation of severity of injury (by revised trauma score, age, injury severity score) and outcome (survival, length of stay, and ICU length of stay).</i></p>	<p>E</p>
<p>8. Participation with the regional advisory council’s (RAC) PI program, including adherence to regional protocols, review of pre-hospital trauma care, submitting data to the RAC as requested including such things as summaries of transfer denials and transfers to hospitals outside of the RAC.</p>	<p><i>Upon request, facility must be able to describe and provide documentation of regional PI involvement to include filters that are used, information submitted and/or meeting participation.</i></p>	<p>E</p>

Basic (Level IV) Essential Criteria	Guidance	
9. Times of and reasons for diversion must be documented and reviewed by the trauma PI program.	<i>A Level IV Trauma Facility is available to stabilize all major and severe trauma patients 24 hours per day/seven days a week. Diversion of such patients to other facilities should be made rarely and only when resources are not available in the emergency department to stabilize and transfer these patients. Reason for trauma diversion shall be in policy and closely monitored in the trauma PI program.</i>	E

H. REGIONAL TRAUMA SYSTEM		
1. Must participate in the regional trauma system per RAC requirements.	<i>The RAC chair should be contacted regarding participation requirements. Participation requirements must be met annually.</i>	E

I. TRANSFERS		
1. A process to expedite the transfer of major and severe trauma patients to include such things as written protocols, written transfer agreements, and a regional trauma system transfer plan for patients needing higher level of care or specialty services (i.e. surgery, burns, etc.)	<i>Written agreements between hospital help to ensure the consistent and efficient movement of patients between institutions, allow for review of the structure of the transfer process with the goal of performance improvement, and results in mutual educational benefit for both institutions. The value of these agreements is to design a process prior to its necessity that allows the injured patient to receive the specialty care needed. Written transfer agreements with all facilities to whom patients are transferred, signed by both parties, are preferred. Verbal agreements with these facilities will fulfill the criteria.</i>	E
2. A system for establishing an appropriate landing zone in close proximity to the hospital (if rotor wing services are available.)	<i>A designated landing zone shall be established to meet regulatory guidelines of the FAA and provide for safe and rapid transport of the trauma patient. Timeliness and accessing the landing zone shall be monitored in the trauma PI program.</i>	E

J. PUBLIC EDUCATION/INJURY PREVENTION		
1. A public education program to address the major injury problems within the hospital's service area. Documented participation in a RAC injury prevention program is acceptable.	<i>The hospital shall be participating in activities, which provide education and information to the public in relation to trauma. CPR classes, babysitter classes, bicycle helmet or safety restraint awareness and/or education and presentations on trauma system development and the RAC are a few examples of acceptable activities. Participation in RAC sponsored activities may fulfill the criteria. Representatives of the hospital shall attend RAC meetings of their TSA and participate in RAC committees, as appropriate, to assist in the development of the regional trauma system and regional trauma system plan.</i>	E
2. Coordination and/or participation in community/RAC injury prevention activities.		E

K. TRAINING PROGRAMS		
1. Formal programs in trauma continuing education provided by hospital for staff based on needs identified from the trauma PI program for: a. Staff physicians b. Nurses c. Allied health personnel, including mid-level providers such as physician assistants and nurse practitioners.	<i>Educational opportunities should be made available to all levels of staff (i.e. physicians, nurses, allied health professionals) by the hospital, based on needs identified in the trauma PI program) Both internal and external programs meet the intent of this criterion.</i>	E E E

