Figure: 25 TAC §157.125(x)

ADVANCED (LEVEL III) TRAUMA FACILITY CRITERIA

Advanced Trauma Facility (Level III) - 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 (see attached standards). The administrative commitment of a Level III trauma facility includes developing processes that define the trauma patient population evaluated by the facility and track them throughout the course of their stay in order to maximize funding opportunities.

A. TRAUMA PROGRAM	
1. Trauma Service.	E
2. An identified Trauma Medical Director (TMD) who: is a general surgeon. 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: recommending trauma team privileges; developing treatment protocols; cooperating with the nursing administration to support the nursing needs of the trauma patients; coordinating the performance improvement (PI) peer review; correcting deficiencies in trauma care or excluding from trauma call those trauma team members who do not meet criteria; coordinating the budgetary process for the trauma program; and should include such things as periodic rounds on all admitted major or severe trauma patients, chairing the trauma PI process and oversight of multidisciplinary trauma conferences. a. 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 program. b. There shall be a defined job description and organizational chart delineating the TMD's role and responsibilities. c. The TMD shall participate in a leadership role in the hospital, community, and emergency management (disaster) response committee.	E

d. The TMD should participate in the development of the regional trauma system plan.	
3. An identified Trauma Nurse Coordinator/Trauma Program Manager (TNC/TPM) who: 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)). shall have 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. 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. This position shall be full-time with a minimum of 80% of the time dedicated to the Trauma program. 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)).	E
4. There shall be an identified Trauma Registrar, who is separate from but supervised by the TNC/TPM, who has appropriate training ((e.g. 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.	E
5. Written protocols, developed with approval of the hospital's medical staff, for: a. Trauma team activation. b. Identification of trauma team responsibilities during a resuscitation. c. Resuscitation and treatment of trauma patients.	E

d. Triage, admission and transfer of trauma patients.	
6. All major and severe trauma patients shall be admitted to an appropriate surgeon and all multi-system trauma patients shall be admitted to a general surgeon.	E

B. PHYSICIAN SERVICES	
1. SURGERY DEPARTMENTS/DIVISIONS/SERVICES/SECTIONS	
a. General Surgery	E
A general surgeon who is providing trauma coverage shall be currently credentialed in ATLS or an equivalent course approved by DSHS. A general surgeon who is providing trauma coverage shall be credentialed by the TMD to participate in the resuscitation and treatment of trauma patients 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. Additionally, the core attending general surgeons that are providing coverage shall attend 50% or greater of multidisciplinary and peer review trauma committee meetings. A non-board certified general surgeon desiring inclusion in a hospital's trauma program shall meet the American College of Surgeons (ACS) guidelines as specified in its most current version of the "Resources For Optimal Care Of the Injured Patient", Alternate Criteria section. Communication shall be such that the attending general surgeon shall be present in the ED at the time of arrival of the major or severe trauma patient; maximum response time of the attending surgeon shall be 30 minutes from trauma team activation. This system shall be continuously monitored by the trauma PI program. In hospitals with surgical residency programs, evaluation and treatment may be started by a team of surgeons that shall include a PGY4 or more senior surgical resident who is a member of that hospital's residency program. The attending surgeon's participation in major therapeutic decisions, presence in the emergency department for major resuscitations, and presence at operative procedures are mandatory. Compliance with these criteria and their appropriateness shall be monitored by the trauma PI program. When the attending surgeon is not activated initially and it has been determined by the emergency	E

physician that an urgent surgical consult is necessary, maximum response time of the attending surgeon shall be 60 minutes from notification to physical presence at the patient's bedside. This system shall be continuously monitored by the trauma PI program. There shall be a published on-call schedule for obtaining general surgery care. There shall be a documented system for obtaining general surgical care for situations when the attending general surgeon on-call is unavailable. Ideally, the surgeon is on-call only at one institution; otherwise, a published back-up call schedule shall be in place in the emergency department. This system shall be continuously monitored by the trauma PI program.	
b. Orthopaedic Surgery	E
An orthopaedic surgeon who is providing trauma coverage shall be credentialed by the TMD to participate in the resuscitation and treatment of trauma patients to include requirements such as current board certification/eligibility, compliance with trauma protocols, and participation in the trauma PI program. Additionally, the orthopaedic surgeon representative to the multidisciplinary trauma committee shall have an average of 9 hours of orthopaedic-related continuing medical education per year and attend 50% or greater of multidisciplinary and peer review trauma committee meetings. A non-board certified orthopaedic surgeon desiring inclusion in a hospital's trauma program shall meet ACS guidelines as specified in its current addition of "Resources For Optimal Care Of the Injured Patient", Alternate Criteria section. An orthopaedic surgeon providing trauma coverage shall be promptly available (physically present) at the major or severe trauma patient's bedside within 30 minutes of request by the attending trauma surgeon or emergency physician from inside or outside hospital. This system shall be continuously monitored by the trauma PI program. When the orthopaedic surgeon is not activated initially and it has been determined by the emergency physician or trauma surgeon that an urgent surgical consult is necessary, maximum response time of the orthopaedic surgeon shall be 60 minutes from notification to physical presence at the patient's bedside. This system shall be continuously monitored by the trauma PI program. There shall be a published on-call schedule for obtaining orthopaedic surgery care. There shall be a	E

documented system for obtaining orthopaedic surgery care for situations when the attending orthopaedic surgeon on call is unavailable. Ideally, the orthopaedic surgeon is on-call only at one institution; otherwise, a published back-up plan shall be in place in the emergency department. This system shall be continuously monitored by the trauma PI program.	
c. **Neurosurgery** *Neurosurgery coverage is desired in a level III, but the performance standards below are "essential" when a Level III has either full-time, routine or limited neurosurgical coverage. A neurosurgeon who is providing trauma coverage shall be credentialed by the TMD to participate in the resuscitation and treatment of trauma patients to include requirements such as current board certification/eligibility, compliance with trauma protocols, and participation in the trauma PI program. Additionally, the neurosurgeon representative to the multidisciplinary trauma committee shall have an average of 9 hours of trauma-related continuing medical education per year and attend 50% or greater of multidisciplinary and peer review trauma committee meetings. A non-board–certified neurosurgeon desiring inclusion in a hospital's trauma program shall meet ACS guidelines as specified in its current addition of "Resources For Optimal Care Of the Injured Patient", Alternate Criteria section. A neurosurgeon providing trauma coverage shall be promptly available (physically present) at the major or severe trauma patient's bedside within 30 minutes of an emergency request by the attending trauma surgeon or emergency physician from inside or outside the hospital. This system shall be continuously monitored by the trauma PI program. When the neurosurgeon is not activated initially or was not consulted as an emergency and it has been determined by the emergency physician or trauma surgeon that an urgent neurosurgical consult is necessary, maximum response time of the neurosurgeon surgeon shall be 60 minutes from notification to physical presence at the patient's bedside. This system shall be continuously monitored by the trauma PI program. There shall be a published on-call schedule for obtaining neurosurgical care. There shall be a documented system for obtaining neurosurgical care for situations when neurosurgeon on-call is not available. Ideally, the neurosurgeon is on-call only at one institution; otherwise, a published back-up plan shall be in place in the emergency department. This system shall be	D*

continuously monitored by the trauma PI program.	
d. Ophthalmic Surgery	D
e. Otorhinolaryngologic Surgery	D
f. Thoracic Surgery	D
g. Urologic Surgery	D
2. NON-SURGICAL SPECIALTIES AVAILABILITY	
a. **Emergency Medicine** - this requirement may be fulfilled by a physician credentialed by the hospital to provide emergency medical services. In-house 24 hours a day. 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, compliance with trauma protocols, and participation in the trauma PI program. Additionally, the Emergency Medicine representative to the multidisciplinary trauma committee shall have an average of 9 hours of trauma-related continuing medical education per year and attend 50% or greater of multidisciplinary and peer review trauma committee meetings. 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. Current ATLS verification is required for all physicians who work in the emergency department and are not board certified in Emergency Medicine.	E
b. **Radiology** - On-call and promptly available within 30 minutes of request from inside or outside the hospital. This system shall be continuously monitored by the trauma PI program.	E
c. **Anesthesiology** - On-call and promptly available within 30 minutes of request from inside or outside the hospital. This system shall be continuously monitored by the trauma PI program. Requirements may be fulfilled by a member of the anesthesia care team credentialed by the TMD to participate in the resuscitation and treatment of trauma patients that may include requirements such as board certification, trauma continuing education, compliance with trauma protocols, and participation in the trauma PI program. The anesthesiology physician representative to the multidisciplinary	E

trauma committee that provides trauma coverage to the facility shall attend 50% or greater of multidisciplinary and peer review trauma committee meetings.	
d. **Cardiology**	D
e. **Hematology**	D
f. **Nephrology**	D
g. **Pathology**	D
h. **Family Medicine** - The patient's primary care physician should be notified at an appropriate time.	D
i. **Internal Medicine** - The patient's primary care physician should be notified at an appropriate time.	D
j. **Pediatrics** - The patient's primary care physician should be notified at an appropriate time.	D

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 skill in trauma nursing for patients of all ages to include trauma specific orientation, annual clinical competencies, and continuing education.	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.	E
3. A validated acuity-based patient classification system is utilized to define workload and number of nursing staff to provide safe patient care for all trauma patients throughout their hospitalization.	E
4. 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 plan.)	E
5. 50% of nurses caring for trauma patients certified in their area of specialty (e.g. CEN, CCRN, CNOR.)	D

D. PATIENT CARE AREAS/UNITS	
1. EMERGENCY DEPARTMENT	
a. Designated physician director.	E
b. Physician with special competence in the care of critically injured patients, who is designated member of the trauma team and physically present in the emergency department (ED) 24 hours per day.* *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	E

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 performance improvement program.	
c. The ED physician 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 severe or major trauma patient. Response time shall not exceed thirty minutes from notification (this criterion shall be monitored in the trauma PI program.)	E
d. A minimum of two registered nurses who have trauma nursing training shall participate in initial major trauma resuscitation.	E
e. Nurse staffing in the initial resuscitation area is based on patient acuity and trauma team composition is based on historical census and acuity data.	E
f. 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. *A free-standing children's facility is exempt from the ACLS requirement.	E
g. Nursing documentation for trauma patients is systematic and meets the trauma registry guidelines.	E
h. 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.** **Requirements for a free-standing children's facility: 100% of nursing staff who care for trauma patients have successfully completed and hold current credentials in ENPC or in a nationally recognized pediatric advanced life support course and TNCC or ATCN or a DSHS-approved equivalent, within 18 months of date of employment in the ED or date of designation.	E
i. Two-way communication with all pre-hospital emergency medical services vehicles.	E
j. 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:	E
1) Airway control and ventilation equipment including laryngoscope and	E

endotracheal tubes of all sizes, bag-valve-mask devices (BVMs), pocket masks, oxygen	
2) Mechanical ventilator	E
3) Pulse oximetry	E
4) Suction devices	E
5) Electrocardiograph-oscilloscope-defibrillator	E
6) Internal age-specific paddles	E
7) Supraglottic airway management device (e.g. LMA)	D
8) Central venous pressure monitoring equipment	E
9) All standard intravenous fluids and administration devices, including large-bore intravenous catheters and a rapid infuser system	E
10) Sterile surgical sets for procedures standard for emergency room such as thoracostomy, venous cutdown, central line insertion, thoracotomy, diagnostic peritoneal lavage, airway control/cricothyrotomy, etc.	E
11) Drugs and supplies necessary for emergency care	E
12) Cervical spine stabilization device	E
13) Length-based body weight & tracheal tube size evaluation system (such as Broselow tape) and resuscitation medications and equipment that are dose-appropriate for all ages	E
14) Long bone stabilization device	E
15) Pelvic stabilization device	E
16) Thermal control equipment for patients and a rapid warming device for blood and fluids	E
17) Non-invasive continuous blood pressure monitoring devices	E
18) Qualitative end tidal CO_2 monitor	E
k. X-ray capability.	E
1) In-house technician 24-hours a day or on-call and promptly available within 30 minutes of request. This system shall be continuously monitored by the trauma PI program.	E
l. Psychosocial Support Services - These services shall be promptly available within 30 minutes of request.	D
2. OPERATING SUITE	
a. Operating room services - shall be available 24 hours a day. With advanced notice, the Operating Room should be opened and ready to accept a patient within 30 minutes. This system shall be continuously monitored by the trauma PI program.	E
b. Equipment - special requirements shall include but not be limited to:	E
1) Thermal control equipment for patient and for blood and fluids	E
2) X-ray capability including c-arm image intensifier with technologist available 24 hours a day	E
3) Endoscopes, all varieties, and bronchoscope	E
4) Equipment for long bone and pelvic fixation	E
5) Rapid infuser system	E

6) Appropriate monitoring and resuscitation equipment	E
7) The capability to measure pulmonary capillary wedge pressure	E
8) The capability to measure invasive systemic arterial pressure	E
3. POST-ANESTHESIA CARE UNIT (surgical intensive care unit is acceptable)	
a. Registered nurses and other essential personnel 24 hours a day.	E
b. Appropriate monitoring and resuscitation equipment.	E
c. Pulse oximetry.	E
d. Thermal control equipment for patients and a rapid warming device for blood and fluids.	E
4. INTENSIVE CARE CAPABILITY	
a. Designated surgical director or surgical co-director who is responsible for setting policies and administration related to trauma ICU patients. A physician who is providing this coverage must be a surgeon who is credentialed by the TMD to participate in the resuscitation and treatment of trauma patients to include requirements such as board certification/board-eligibility, trauma continuing medical education, compliance with trauma protocols, and participation in the trauma PI program.	E E
b. Physician, credentialed in critical care by the trauma director, on duty in ICU 24 hours a day or immediately available from in-hospital. Arrangements for 24-hour surgical coverage of all trauma patients shall be provided for emergencies and routine care. This system shall be continuously monitored by the trauma PI program.	E
c. Registered Nurse-patient minimum ratio of 1:2 on each shift for patients identified as critical acuity.	E
d. Appropriate monitoring and resuscitation equipment.	E
e. Pulse oximetry.	E
f. Thermal control equipment for patients and a rapid warming device for blood and fluids.	E
g. The capability to measure pulmonary capillary wedge pressure.	E
h. The capability to measure invasive systemic arterial pressure.	E

E. CLINICAL SUPPORT SERVICES	
1. RESPIRATORY SERVICES	
In-house and available 24 hours per day.	E
2. CLINICAL LABORATORY SERVICE	
a. Services available 24 hours per day.	E
b. Standard analyses of blood, urine, and other body fluids, including microsampling.	E
c. Blood typing and cross-matching, to include massive transfusion and emergency release of blood policies.	E
d. Comprehensive blood bank or access to a community central blood bank and adequate hospital storage facilities.	E
e. Coagulation studies.	E

f. Blood gases and pH determinations.	E
g. Microbiology.	E
h. Drug and alcohol screening: results should be included in all trauma PI reviews.	E
i. Infectious disease Standard Operating Procedures.	E
j. Serum and urine osmolality.	D
3. SPECIAL RADIOLOGICAL CAPABILITIES	
a. Sonography.	E
b. Computerized tomography.	E
In-house CT technician 24-hours per day or on-call and promptly available within 30 minutes of request. This system shall be continuously monitored by the trauma PI program.	E
c. Angiography of all types.	D
d. Nuclear scanning.	D

F. SPECIALIZED CAPABILITIES/SERVICES/UNITS	
1. ACUTE HEMODIALYSIS CAPABILITY	
Transfer agreement if no capability.	E
2. ORGANIZED BURN CARE	
Established criteria for care of major or severe burn patients and/or a process to expedite the transfer of burn patients to a burn center or higher level of care to include such things as written protocols, written transfer agreements, and a regional trauma system transfer plan for patients needing a higher level of care or specialty services.	E
3. SPINAL CORD/HEAD INJURY REHABILITATION MANAGEMENT CAPABILITY	
a. In circumstances where a designated spinal cord injury rehabilitation center exists in the region, early transfer should be considered; transfer agreements should be in effect.	E
b. In circumstances where a moderate to severe head injury center exists in the region, transfer should be considered in selected patients; and transfer agreements should be in effect.	E
4. REHABILITATION MEDICINE	
a. Physician-directed rehabilitation service, staffed by personnel trained in rehabilitation care and equipped properly for care of the critically injured patient, or transfer agreement when medically feasible to a rehabilitation facility and a process to expedite the transfer of rehabilitation patients to include such things as written protocols, written transfer agreements, and a regional trauma system transfer plan for patients needing a higher level of care or specialty services.	E
b. Physical therapy.	E
c. Occupational therapy.	E
d. Speech therapy.	E
e. Social Services.	E
G. PERFORMANCE IMPROVEMENT	

1. Track Record: On Initial Designation: 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. On Re-designation: 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.	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 for greater than 23 hours; transfers-in and transfers-out; and readmissions within 48 hours after discharge.	E
3. An organized trauma PI program established by the hospital, to include a pediatric-specific component and trauma audit filters (see "Advanced Trauma Facility Audit Filters" list.)	E
a. Audit of trauma charts for appropriateness and quality of care.	E
b. Documented evidence of identification of all deviations from trauma standards of care, with in-depth critical review.	E
c. Documentation of actions taken to address all identified issues.	E
d. Documented evidence of participation by the TMD.	E
e. Morbidity and mortality review including decisions by the TMD as to whether or not standard of care was met.	E
f. Documented resolutions "loop closure" of all identified issues to prevent future recurrences.	E
g. Special audit for all trauma deaths and other specified cases, including complications, utilizing age-specific criteria.	E
h. Multidisciplinary hospital trauma PI committee structure in place.	E
4. Multidisciplinary trauma conference for PI activities, continuing education and problem solving to include documented nurse and pre-hospital participation.	E
5. Regular and periodic multidisciplinary trauma conferences that include all members of the trauma team should be held. This conference shall be for the purpose of PI through critiques of individual cases.	E
6. Feedback regarding trauma patient transfers-in from EDs and in-patient units shall be provided to all transferring facilities.	E
7. Trauma registry - data shall be forwarded to the state trauma registry on at least a quarterly basis.	E
8. Documentation of severity of injury (by Glasgow Coma Scale, revised trauma score, age, injury severity score) and outcome (survival, length of stay, ICU length of stay) with monthly review of statistics.	E
9. Participation with the regional advisory council's PI program, including adherence to regional protocols,	E

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.	
10. Times of and reasons for diversion must be documented and reviewed by the trauma PI program.	E
11. Published on-call schedule must be maintained for general surgeons and neurosurgeons, orthopaedic surgeons, anesthesia, radiology, and other major specialists if available.	E
12. Performance improvement personnel - dedicated to and specific for the trauma program.	E
H. REGIONAL TRAUMA SYSTEM	
Must participate in the regional trauma system per RAC requirements.	E

I. TRANSFERS	
1. A process to expedite the transfer of applicable 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.	E
2. A system for establishing an appropriate landing zone in close proximity to the hospital (if rotor wing services are available.)	E

J. OUTREACH PROGRAM	
1. Provide education to and consultations with physicians of the community and outlying areas.	E
2. A defined individual to coordinate the facility's community outreach programs for the public and professionals is evident.	E

K. 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.	E
2. Coordination and/or participation in community/RAC injury prevention activities.	E

L. TRAINING PROGRAMS	
1. Formal programs in trauma continuing education provided by hospital for staff based on needs identified from the performance improvement program for:	E
a. Staff physicians	E
b. Nurses	E
c. Allied health personnel, including mid-level providers such as physician assistants and nurse practitioners	E
d. Community physicians	E
e. Pre-hospital personnel	E

M. RESEARCH	
Trauma registry performance improvement activities.	E