Texas Administrative Code

TITLE 25  HEALTH SERVICES
PART 1  DEPARTMENT OF STATE HEALTH SERVICES
CHAPTER 157  EMERGENCY MEDICAL CARE
SUBCHAPTER G  EMERGENCY MEDICAL SERVICES TRAUMA SYSTEMS
RULE §157.125  Requirements for Trauma Facility Designation

(a) The Office of Emergency Medical Services (EMS)/Trauma Systems Coordination (office) shall recommend to the Commissioner of the Department of State Health Services (commissioner) the designation of an applicant/healthcare facility (facility) as a trauma facility at the level(s) for each location of a facility the office deems appropriate.

(1) Comprehensive (Level I) trauma facility designation—The facility, including a free-standing children's facility, meets the current American College of Surgeons (ACS) essential criteria for a verified Level I trauma center; meets the "Advanced Trauma Facility Criteria" in subsection (x) of this section; actively participates on the appropriate Regional Advisory Council (RAC); has appropriate services for dealing with stressful events available to emergency/trauma care providers; and submits data to the Texas EMS/Trauma Registry.

(2) Major (Level II) trauma facility designation—The facility, including a free-standing children's facility, meets the current ACS essential criteria for a verified Level II trauma center; meets the "Advanced Trauma Facility Criteria" in subsection (x) of this section; actively participates on the appropriate RAC; has appropriate services for dealing with stressful events available to emergency/trauma care providers; and submits data to the Texas EMS/Trauma Registry.

(3) Advanced (Level III) trauma facility designation—The facility meets the "Advanced Trauma Facility Criteria" in subsection (x) of this section; actively participates on the appropriate RAC; has appropriate services for dealing with stressful events available to emergency/trauma care providers; and submits data to the Texas EMS/Trauma Registry. A free-standing children's facility, in addition to meeting the requirements listed in this section, must meet the current ACS essential criteria for a verified Level III trauma center.

(4) Basic (Level IV) trauma facility designation—The facility meets the "Basic Trauma Facility Criteria" in subsection (y) of this section; actively participates on the appropriate RAC; has appropriate services for dealing with stressful events available to emergency/trauma care providers; and submits data to the Texas EMS/Trauma Registry.

(b) A healthcare facility is defined under these rules as a single location where inpatients receive hospital services or each location if there are multiple buildings where inpatients receive hospital services and are covered under a single hospital license.

(1) Each location shall be considered separately for designation and the Department of State Health Services (department) will determine the designation level for that location, based on, but not limited to, the location's own resources and levels of care capabilities; Trauma Service Area (TSA) capabilities; and the essential criteria and requirements outlined in subsection (a)(1) - (4) of this section. The final determination of the level(s) of designation may not be the level(s) requested by the facility.

(2) A facility with multiple locations that is applying for designation at one location shall be required to apply for designation at each of its other locations where there are buildings where inpatients receive hospital services and such buildings are collectively covered under a single hospital's license.

(c) The designation process shall consist of three phases.

(1) First phase—The application phase begins with submitting to the office a timely and sufficient application for designation as a trauma facility and ends when the survey report is received by the office.

(2) Second phase—The review phase begins with the office's review of the survey report and ends with its recommendation to the commissioner whether or not to designate the facility and at what level(s). This phase also includes an appeal procedure governed by the department's rules for a contested case hearing and by Government Code, Chapter 2001.

(3) Third phase—The final phase begins with the commissioner reviewing the recommendation and ends with his/her final decision.

(d) For a facility seeking initial designation, a timely and sufficient application shall include:

(1) the department's current "Complete Application" form for the appropriate level, with all fields correctly and legibly filled-in and all requested documents attached, hand-delivered or sent by postal services to the office;

(2) full payment of the designation fee enclosed with the submitted "Complete Application" form;

(3) any subsequent documents submitted by the date requested by the office;

(4) a trauma designation survey completed within one year of the date of the receipt of the application by the office; and

(5) a complete survey report, including patient care reviews, that is within 180 days of the date of the survey and is hand-delivered or sent by postal services to the office.

(e) If a hospital seeking initial designation fails to meet the requirements in subsection (d)(1) - (5) of this section, the application shall be denied.

(f) For a facility seeking re-designation, a timely and sufficient application shall include:

(1) the department's current "Complete Application" form for the appropriate level, with all fields correctly and legibly filled-in and all requested documents attached, hand-delivered or sent by postal services to the office one year or greater from the designation expiration date;

(2) full payment of the designation fee enclosed with the submitted "Complete Application" form;

(3) any subsequent documents submitted by the date requested by the office; and

(4) a complete survey report, including patient care reviews, that is within 180 days of the date of the survey and is hand-delivered or sent by postal services to the office no less than 60 days prior to the designation expiration date.

(g) If a healthcare facility seeking re-designation fails to meet the requirements outlined in subsection (f)(1) - (4) of this section, the original designation will expire on its expiration date.

(h) The office's analysis of the submitted "Complete Application" form may result in recommendations for corrective action when deficiencies are noted and shall also include a review of:

(1) the evidence of current participation in RAC/regional system planning; and

(2) the completeness and appropriateness of the application materials submitted, including the submission of a non-refundable application fee as follows:

(A) for Level I and Level II trauma facility applicants, the fee will be no more than $10 per licensed bed with an upper limit of $5,000 and a lower limit of $4,000;
(B) for Level III trauma facility applicants, the fee will be no more than $10 per licensed bed with an upper limit of $2,500 and a lower limit of $1,500; and

(C) for Level IV trauma facility applicants, the fee will be no more than $10 per licensed bed with an upper limit of $1000 and a lower limit of $500.

(i) When a "Complete Application" form for initial designation or re-designation from a facility is received, the office will determine the level it deems appropriate for pursuit of designation or re-designation for each of the facility's locations based on, but not limited to: the facility's resources and levels of care capabilities at each location, TSA resources, and the essential criteria for Levels I, II, III, and IV trauma facilities. In general, physician services capabilities described in the application must be in place 24 hours a day/7 days a week. In determining whether a physician services capability is present, the department may use the concept of substantial compliance that is defined as having said physician services capability at least 90% of the time.

(1) If a facility disagrees with the level(s) determined by the office to be appropriate for pursuit of designation or re-designation, it may make an appeal in writing within 60 days to the director of the office. The written appeal must include a signed letter from the facility's governing board with an explanation as to why designation at the level determined by the office would not be in the best interest of the citizens of the affected TSA or the citizens of the State of Texas.

(2) The written appeal may include a signed letter(s) from the executive board of its RAC or individual healthcare facilities and/or EMS providers within the affected TSA with an explanation as to why designation at the level determined by the office would not be in the best interest of the citizens of the affected TSA or the citizens of the State of Texas.

(3) If the office upholds its original determination, the director of the office will give written notice of such to the facility within 30 days of its receipt of the applicant's complete written appeal.

(4) The facility may, within 30 days of the office's sending written notification of its denial, submit a written request for further review. Such written appeal shall then go to the Assistant Commissioner, Division for Regulatory Services (assistant commissioner).

(j) When the analysis of the "Complete Application" form results in acknowledgement by the office that the facility is seeking an appropriate level of designation or re-designation, the facility may then contract for the survey, as follows.

(1) Level I and II facilities and all free-standing children's facilities shall request a survey through the ACS trauma verification program.

(2) Level III facilities shall request a survey through the ACS trauma verification program or through a comparable organization approved by the department.

(3) Level IV facilities shall request a survey through the ACS trauma verification program, through a comparable organization approved by the department, or by a department-credentialed surveyor(s) active in the management of trauma patients.

(4) The facility shall notify the office of the date of the planned survey and the composition of the survey team.

(5) The facility shall be responsible for any expenses associated with the survey.

(6) The office, at its discretion, may appoint an observer to accompany the survey team. In this event, the cost for the observer shall be borne by the office.
(k) The survey team composition shall be as follows.

(1) Level I or Level II facilities shall be surveyed by a team that is multi-disciplinary and includes at a minimum: 2 general surgeons, an emergency physician, and a trauma nurse all active in the management of trauma patients.

(2) Free-standing children's facilities of all levels shall be surveyed by a team consistent with current ACS policy and includes at a minimum: a pediatric surgeon; a general surgeon; a pediatric emergency physician; and a pediatric trauma nurse coordinator or a trauma nurse coordinator with pediatric experience.

(3) Level III facilities shall be surveyed by a team that is multi-disciplinary and includes at a minimum: a trauma surgeon and a trauma nurse (ACS or department-credentialed), both active in the management of trauma patients.

(4) Level IV facilities shall be surveyed by a department-credentialed representative, registered nurse or licensed physician. A second surveyor may be requested by the facility or by the department.

(5) Department-credentialed surveyors must meet the following criteria:

(A) have at least 3 years experience in the care of trauma patients;

(B) be currently employed in the coordination of care for trauma patients;

(C) have direct experience in the preparation for and successful completion of trauma facility verification/designation;

(D) have successfully completed a department-approved trauma facility site surveyor course and be successfully re-credentialed every 4 years; and

(E) have current credentials as follows:

(i) for nurses: Trauma Nurses Core Course (TNCC) or Advanced Trauma Course for Nurses (ATCN); and Pediatric Advanced Life Support (PALS) or Emergency Nurses Pediatric Course (ENPC);

(ii) for physicians: Advanced Trauma Life Support (ATLS); and

(iii) have successfully completed a site survey internship.

(6) All members of the survey team, except department staff, shall come from a TSA outside the facility's location and at least 100 miles from the facility. There shall be no business or patient care relationship or any potential conflict of interest between the surveyor or the surveyor's place of employment and the facility being surveyed.

(l) The survey team shall evaluate the facility's compliance with the designation criteria, by:

(1) reviewing medical records; staff rosters and schedules; process improvement committee meeting minutes; and other documents relevant to trauma care;

(2) reviewing equipment and the physical plant;

(3) conducting interviews with facility personnel;

(4) evaluating compliance with participation in the Texas EMS/Trauma Registry, and

(5) evaluating appropriate use of telemedicine capabilities where applicable.
(m) The site survey report in its entirety shall be part of a facility's performance improvement program and subject to confidentiality as articulated in the Health and Safety Code, §773.095.

Cont'd...
(n) The surveyor(s) shall provide the facility with a written, signed survey report regarding their evaluation of the facility's compliance with trauma facility criteria. This survey report shall be forwarded to the facility within 30 calendar days of the completion date of the survey. The facility is responsible for forwarding a copy of this report to the office if it intends to continue the designation process.

(o) The office shall review the findings of the survey report for compliance with trauma facility criteria.

(1) A recommendation for designation shall be made to the commissioner based on compliance with the criteria.

(2) If a facility does not meet the criteria for the level of designation deemed appropriate by the office, the office shall notify the facility of the requirements it must meet to achieve the appropriate level of designation.

(3) If a facility does not comply with criteria, the office shall notify the facility of deficiencies and recommend corrective action.

(A) The facility shall submit to the office a report that outlines the corrective action(s) taken. The office may require a second survey to ensure compliance with the criteria. If the office substantiates action that brings the facility into compliance with the criteria, the Office shall recommend designation to the commissioner.

(B) If a facility disagrees with the office's decision regarding its designation application or status, it may request a secondary review by a designation review committee. Membership on a designation review committee will:

(i) be voluntary;

(ii) be appointed by the office director;

(iii) be representative of trauma care providers and appropriate levels of designated trauma facilities; and

(iv) include representation from the department and the Trauma Systems Committee of the Governor's EMS and Trauma Advisory Council (GETAC).

(C) If a designation review committee disagrees with the office's recommendation for corrective action, the records shall be referred to the assistant commissioner for recommendation to the commissioner.

(D) If a facility disagrees with the office's recommendation at the end of the secondary review, the facility has a right to a hearing, in accordance with the department's rules for contested cases, and Government Code, Chapter 2001.

(p) The facility shall have the right to withdraw its application at any time prior to being recommended for trauma facility designation by the office.

(q) If the commissioner concurs with the recommendation to designate, the facility shall receive a letter and a certificate of designation valid for 3 years. Additional actions, such as a site review or submission of
information/reports to maintain designation, may be required by the department.

(r) It shall be necessary to repeat the designation process as described in this section prior to expiration of a facility's designation or the designation expires.

(s) A designated trauma facility shall:

(1) comply with the provisions within these sections; all current state and system standards as described in this chapter; and all policies, protocols, and procedures as set forth in the system plan;

(2) continue its commitment to provide the resources, personnel, equipment, and response as required by its designation level;

(3) participate in the Texas EMS/Trauma Registry. Data submission requirements for designation purposes are as follows.

(A) Initial designation—Six months of data prior to the initial designation survey must be uploaded. Subsequent to initial designation, data should be uploaded to the Texas EMS/Trauma Registry on at least a quarterly basis (with monthly submissions recommended) as indicated in §103.19 of this title (relating to Electronic Reporting).

(B) Re-designation—The facility's trauma registry should be current with at least quarterly uploads of data to the Texas EMS/Trauma Registry (monthly submissions recommended) as indicated in §103.19 of this title;

(4) notify the office, its RAC plus other affected RACs of all changes that affect air medical access to designated landing sites.

(A) Non-emergent changes shall be implemented no earlier than 120 days after a written notification process.

(B) Emergency changes related to safety may be implemented immediately along with immediate notification to department, the RAC, and appropriate Air Medical Providers.

(C) Conflicts relating to helipad air medical access changes shall be negotiated between the facility and the EMS provider.

(D) Any unresolved issues shall be handled utilizing the nonbinding alternative dispute resolution (ADR) process of the RAC in which the helipad is located;

(5) within 5 days, notify the office; its RAC plus other affected RACs; and the healthcare facilities to which it customarily transfers-out trauma patients or from which it customarily receives trauma transfers-in if temporarily unable to comply with a designation criterion. If the healthcare facility intends to comply with the criterion and maintain current designation status, it must also submit to the office a plan for corrective action and a request for a temporary exception to criteria within 5 days.

(A) If the requested essential criterion exception is not critical to the operations of the healthcare facility's trauma program and the office determines that the facility has intent to comply, a 30-day to 90-day exception period from the onset date of the deficiency may be granted for the facility to achieve compliancy.

(B) If the requested essential criterion exception is critical to the operations of the healthcare facility's trauma program and the office determines that the facility has intent to comply, no greater than a 30-day exception period from the onset date of the deficiency may be granted for the facility to achieve compliancy. Essential criteria that are critical include such things as:

(i) neurological surgery capabilities (Level I, II);

(ii) orthopedic surgery capabilities (Level I, II, III);

(iii) general/trauma surgery capabilities (Level I, II, III);

(iv) anesthesiology (Levels I, II, III);

(v) emergency physicians (all levels);

(vi) trauma medical director (all levels);

(vii) trauma nurse coordinator/program manager (all levels); and

(viii) trauma registry (all levels).

(C) If the healthcare facility has not come into compliance at the end of the exception period, the office may at its discretion elect one of the following:

(i) allow the facility to request designation at the level appropriate to its revised capabilities;

(ii) propose to re-designate the facility at the level appropriate to its revised capabilities;

(iii) propose to suspend the facility’s designation status. If the facility is amenable to this action, the office will develop a plan for corrective action for the facility and a specific timeline for compliance by the facility; or

(iv) propose to extend the facility’s temporary exception to criteria for an additional period not to exceed 90 days. The department will develop a plan for corrective action for the facility and a specific timeline for compliance by the facility.

(I) Suspensions of a facility's designation status and exceptions to criteria for facilities will be documented on the office website.

(II) If the facility disagrees with a proposal by the office, or is unable or unwilling to meet the office-imposed timelines for completion of specific actions plans, it may request a secondary review by a designation review committee as defined in subsection (o)(3)(B) of this section.

(III) The office may at its discretion choose to activate a designation review committee at any time to solicit technical advice regarding criteria deficiencies.

(IV) If the designation review committee disagrees with the office’s recommendation for corrective actions, the case shall be referred to the assistant commissioner for recommendation to the commissioner.

(V) If a facility disagrees with the office’s recommendation at the end of the secondary review process, the facility has a right to a hearing, in accordance with the department’s rules for contested cases and Government Code, Chapter 2001.

(VI) Designated trauma facilities seeking exceptions to essential criteria shall have the right to withdraw the request at any time prior to resolution of the final appeal process;

(6) notify the office; its RAC; plus other affected RACs; and the healthcare facilities to which it customarily transfers-out trauma patients or from which it customarily receives trauma transfers-in, if it no longer provides trauma services.
commensurate with its designation level.

(A) If the facility chooses to apply for a lower level of trauma designation, it may do so at any time; however, it shall be necessary to repeat the designation process. There shall be a paper review by the office to determine if and when a full survey shall be required.

(B) If the facility chooses to relinquish its trauma designation, it shall provide at least 30 days notice to the RAC and the office; and

(7) within 30 days, notify the office; its RAC plus other affected RACs; and the healthcare facilities to which it customarily transfers-out trauma patients or from which it customarily receives trauma transfers-in, of the change(s) if it adds capabilities beyond those that define its existing trauma designation level.

(A) It shall be necessary to repeat the trauma designation process.

(B) There shall then be a paper review by the office to determine if and when a full survey shall be required.

(t) Any facility seeking trauma designation shall have measures in place that define the trauma patient population evaluated at the facility and/or at each of its locations, and the ability to track trauma patients throughout the course of their care within the facility and/or at each of its locations in order to maximize funding opportunities for uncompensated care.

(u) A healthcare facility may not use the terms "trauma facility", "trauma hospital", "trauma center", or similar terminology in its signs or advertisements or in the printed materials and information it provides to the public unless the healthcare facility is currently designated as a trauma facility according to the process described in this section.

(v) The office shall have the right to review, inspect, evaluate, and audit all trauma patient records, trauma performance improvement committee minutes, and other documents relevant to trauma care in any designated trauma facility or applicant/healthcare facility at any time to verify compliance with the statute and this rule, including the designation criteria. The office shall maintain confidentiality of such records to the extent authorized by the Texas Public Information Act, Government Code, Chapter 552, and consistent with current laws and regulations related to the Health Insurance Portability and Accountability Act of 1996. Such inspections shall be scheduled by the office when deemed appropriate. The office shall provide a copy of the survey report, for surveys conducted by or contracted for the department, and the results to the healthcare facility.

(w) The office may grant an exception to this section if it finds that compliance with this section would not be in the best interests of the persons served in the affected local system.

(x) Advanced (Level III) Trauma Facility Criteria.

Attached Graphic

(1) Advanced (Level III) Trauma Facility Criteria Standards.

Attached Graphic

(2) Advanced (Level III) Trauma Facility Criteria Audit Filters.

Attached Graphic

(y) Basic (Level IV) Trauma Facility Criteria.
Attached Graphic

(1) Basic (Level IV) Trauma Facility Criteria Standards.

Attached Graphic

(2) Basic (Level IV) Trauma Facility Criteria Audit Filters.

Attached Graphic

Source Note: The provisions of this §157.125 adopted to be effective December 26, 2006, 31 TexReg 10300
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.

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.

   d. The TMD should participate in the development of the regional trauma system
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)).

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.

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.
   
   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.

B. PHYSICIAN SERVICES

1. SURGERY DEPARTMENTS/DIVISIONS/SERVICES/SECTIONS

a. General Surgery

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 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

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
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 continuously monitored by the trauma PI program.

d. Ophthalmic Surgery

e. Otorhinolaryngologic Surgery
2. NON-SURGICAL SPECIALTIES AVAILABILITY

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<td>f. Thoracic Surgery</td>
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<td>g. Urologic Surgery</td>
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<td>2. NON-SURGICAL SPECIALTIES AVAILABILITY</td>
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<td>a. Emergency Medicine - this requirement may be fulfilled by a physician credentialed by the hospital to provide emergency medical services.</td>
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<td>In-house 24 hours a day.</td>
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<td>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.</td>
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<td>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.</td>
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<tr>
<td>Current ATLS verification is required for all physicians who work in the emergency department and are not board certified in Emergency Medicine.</td>
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<tr>
<td>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.</td>
<td>E</td>
</tr>
<tr>
<td>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.</td>
<td>E</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>The anesthesiology physician representative to the multidisciplinary trauma committee that provides trauma coverage to the facility shall attend 50% or greater of multidisciplinary and peer review trauma committee meetings.</td>
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<tr>
<td>d.</td>
<td>Cardiology</td>
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<tr>
<td>e.</td>
<td>Hematology</td>
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<tr>
<td>f.</td>
<td>Nephrology</td>
</tr>
<tr>
<td>g.</td>
<td>Pathology</td>
</tr>
<tr>
<td>h.</td>
<td>Family Medicine - The patient's primary care physician should be notified at an appropriate time.</td>
</tr>
<tr>
<td>i.</td>
<td>Internal Medicine - The patient's primary care physician should be notified at an appropriate time.</td>
</tr>
<tr>
<td>j.</td>
<td>Pediatrics - The patient's primary care physician should be notified at an appropriate time.</td>
</tr>
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</table>

### 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.

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.

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.

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.)

5. 50% of nurses caring for trauma patients certified in their area of specialty (e.g. CEN, CCRN, CNOR.)

### D. PATIENT CARE AREAS/UNITS

1. **EMERGENCY DEPARTMENT**
   a. Designated physician director.
   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 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.)

d. A minimum of two registered nurses who have trauma nursing training shall participate in initial major trauma resuscitation.

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.

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.

g. Nursing documentation for trauma patients is systematic and meets the trauma registry guidelines.

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.

i. Two-way communication with all pre-hospital emergency medical services vehicles.

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:

1) Airway control and ventilation equipment including laryngoscope and endotracheal tubes of all sizes, bag-valve-mask devices (BVMs), pocket masks, oxygen

2) Mechanical ventilator

3) Pulse oximetry

4) Suction devices

5) Electrocardiograph-oscilloscope-defibrillator

6) Internal age-specific paddles
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<tr>
<td>7)</td>
<td>Supraglottic airway management device (e.g., LMA)</td>
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<tr>
<td>8)</td>
<td>Central venous pressure monitoring equipment</td>
</tr>
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<td>9)</td>
<td>All standard intravenous fluids and administration devices, including large-bore intravenous catheters and a rapid infuser system</td>
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<tr>
<td>10)</td>
<td>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.</td>
</tr>
<tr>
<td>11)</td>
<td>Drugs and supplies necessary for emergency care</td>
</tr>
<tr>
<td>12)</td>
<td>Cervical spine stabilization device</td>
</tr>
<tr>
<td>13)</td>
<td>Length-based body weight &amp; tracheal tube size evaluation system (such as Broselow tape) and resuscitation medications and equipment that are dose-appropriate for all ages</td>
</tr>
<tr>
<td>14)</td>
<td>Long bone stabilization device</td>
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<tr>
<td>15)</td>
<td>Pelvic stabilization device</td>
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<tr>
<td>16)</td>
<td>Thermal control equipment for patients and a rapid warming device for blood and fluids</td>
</tr>
<tr>
<td>17)</td>
<td>Non-invasive continuous blood pressure monitoring devices</td>
</tr>
<tr>
<td>18)</td>
<td>Qualitative end tidal CO₂ monitor</td>
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</table>

**k. X-ray capability.**

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.

**l. Psychosocial Support Services - These services shall be promptly available within 30 minutes of request.**

**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.

b. Equipment - special requirements shall include but not be limited to:

1) Thermal control equipment for patient and for blood and fluids available 24 hours a day

2) X-ray capability including c-arm image intensifier with technologist

3) Endoscopes, all varieties, and bronchoscope

4) Equipment for long bone and pelvic fixation

5) Rapid infuser system

6) Appropriate monitoring and resuscitation equipment

7) The capability to measure pulmonary capillary wedge pressure

8) The capability to measure invasive systemic arterial pressure

**3. POST-ANESTHESIA CARE UNIT (surgical intensive care unit is acceptable)**

a. Registered nurses and other essential personnel 24 hours a day.

b. Appropriate monitoring and resuscitation equipment.

c. Pulse oximetry.

d. Thermal control equipment for patients and a rapid warming device for blood and fluids.
### 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.

- 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.

- c. Registered Nurse-patient minimum ratio of 1:2 on each shift for patients identified as critical acuity.

- d. Appropriate monitoring and resuscitation equipment.

- e. Pulse oximetry.

- f. Thermal control equipment for patients and a rapid warming device for blood and fluids.

- g. The capability to measure pulmonary capillary wedge pressure.

- h. The capability to measure invasive systemic arterial pressure.

### E. CLINICAL SUPPORT SERVICES

#### 1. RESPIRATORY SERVICES

In-house and available 24 hours per day.

#### 2. CLINICAL LABORATORY SERVICE

- a. Services available 24 hours per day.

- b. Standard analyses of blood, urine, and other body fluids, including microsampling.

- c. Blood typing and cross-matching, to include massive transfusion and emergency release of blood policies.

- d. Comprehensive blood bank or access to a community central blood bank and adequate hospital storage facilities.

- e. Coagulation studies.


- g. Microbiology.

- h. Drug and alcohol screening: results should be included in all trauma PI reviews.

- i. Infectious disease Standard Operating Procedures.

- j. Serum and urine osmolality.

#### 3. SPECIAL RADIOLOGICAL CAPABILITIES

- a. Sonography.

- b. Computerized tomography.

  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.

c. Angiography of all types.  
d. Nuclear scanning.

<table>
<thead>
<tr>
<th>F. SPECIALIZED CAPABILITIES/SERVICES/UNITS</th>
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<tbody>
<tr>
<td>1. ACUTE HEMODIALYSIS CAPABILITY</td>
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<tr>
<td>Transfer agreement if no capability.</td>
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<tr>
<td>2. ORGANIZED BURN CARE</td>
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<tr>
<td>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.</td>
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<tr>
<th>3. SPINAL CORD/HEAD INJURY REHABILITATION MANAGEMENT CAPABILITY</th>
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<tbody>
<tr>
<td>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.</td>
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<tr>
<td>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.</td>
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<tr>
<th>4. REHABILITATION MEDICINE</th>
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<tr>
<td>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.</td>
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<tr>
<td>b. Physical therapy.</td>
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<td>c. Occupational therapy.</td>
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<td>d. Speech therapy.</td>
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<td>e. Social Services.</td>
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<th>G. PERFORMANCE IMPROVEMENT</th>
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<tr>
<td>1. Track Record:</td>
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<tr>
<td>On Initial Designation: a facility must have completed at least six months of audits on all qualifying trauma records with evidence of &quot;loop closure&quot; on identified issues. Compliance with internal trauma policies must be evident.</td>
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<tr>
<td>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.</td>
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<tr>
<td>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</td>
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admissions for greater than 23
hours; transfers-in and transfers-out; and readmissions within 48 hours after

discharge.

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.)

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<tbody>
<tr>
<td>a.</td>
<td>Audit of trauma charts for appropriateness and quality of care.</td>
</tr>
<tr>
<td>b.</td>
<td>Documented evidence of identification of all deviations from trauma standards of care, with in-depth critical review.</td>
</tr>
<tr>
<td>c.</td>
<td>Documentation of actions taken to address all identified issues.</td>
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<tr>
<td>d.</td>
<td>Documented evidence of participation by the TMD.</td>
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<tr>
<td>e.</td>
<td>Morbidity and mortality review including decisions by the TMD as to whether or not standard of care was met.</td>
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<tr>
<td>f.</td>
<td>Documented resolutions “loop closure” of all identified issues to prevent future recurrences.</td>
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<tr>
<td>g.</td>
<td>Special audit for all trauma deaths and other specified cases, including complications, utilizing age-specific criteria.</td>
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<tr>
<td>h.</td>
<td>Multidisciplinary hospital trauma PI committee structure in place.</td>
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4. Multidisciplinary trauma conference for PI activities, continuing education and problem solving to include documented nurse and pre-hospital participation.

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.

6. Feedback regarding trauma patient transfers-in from EDs and in-patient units shall be provided to all transferring facilities.

7. Trauma registry - data shall be forwarded to the state trauma registry on at least a quarterly basis.

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.

9. Participation with the regional advisory council’s 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.

10. Times of and reasons for diversion must be documented and reviewed by the trauma PI program.

11. Published on-call schedule must be maintained for general surgeons and neurosurgeons, orthopaedic surgeons, anesthesia, radiology, and other major specialists if available.

12. Performance improvement personnel - dedicated to and specific for the trauma program.

**II. REGIONAL TRAUMA SYSTEM**

Must participate in the regional trauma system per RAC requirements.

**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.

2. A system for establishing an appropriate landing zone in close proximity to the hospital (if rotor wing services are available.)

### J. OUTREACH PROGRAM

1. Provide education to and consultations with physicians of the community and outlying areas.

2. A defined individual to coordinate the facility’s community outreach programs for the public and professionals is evident.

### 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.

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

### 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:
   - a. Staff physicians
   - b. Nurses
   - c. Allied health personnel, including mid-level providers such as physician assistants and nurse practitioners
   - d. Community physicians
   - e. Pre-hospital personnel

### M. RESEARCH

Trauma registry performance improvement activities.
Advanced (Level III) Trauma Facility Standards

1. A Level III Trauma Facility shall be an active participant on the regional advisory council (RAC) of its trauma service area (TSA).

2. A Level III Trauma Facility is available to care for all major and severe trauma patients 24 hours per day/7 days per week. Diversion of such patients to other facilities should be made rarely and only when resources are not available in the emergency department (ED) to stabilize and transfer these patients.

3. A Level III trauma facility with specialized trauma capabilities may not refuse a request for a trauma transfer from another hospital if it has the capacity to accept. Specialized trauma capability is any capability necessary for screening or stabilizing patients with emergency medical conditions that the transferring hospital may lack. The only two reasons a Level III trauma facility may refuse a trauma transfer request are lack of capability to handle the patient’s emergency condition or when it is at capacity.

4. A log of all trauma transfer-in denials shall be maintained, reviewed through the facility’s trauma performance improvement (PI) process, and referred to the appropriate RAC’s systems PI process.

5. A Level III trauma facility shall have an established relationship with tertiary trauma facility (ies) to which it transfers patients and with all designated Level IV trauma facilities that regularly initiate transfers-in, to include such things as:
   - written transfer agreements
   - prospective dialogue regarding appropriate pre-transfer diagnostic laboratory and radiological studies so that each is cognizant of the other’s performance expectations
   - consideration of a single phone call transfer-request process
   - provision of feedback regarding transfers as part of the PI program

6. A Level III trauma facility shall have age-specific policies/processes that demonstrate knowledge of the special resources potentially needed by injured patients of all ages, and is cognizant of the pediatric capabilities of the hospitals to which it customarily effectuates transfers so that it can determine the most appropriate facility.

7. A Level III trauma facility shall have an established relationship with the EMS providers, who transport to the facility, to facilitate adequate pre-arrival notification, appropriate documentation, and appropriate pre-hospital care.

8. A Level III trauma facility shall present its pediatric capabilities to the RAC so that both EMS providers and other hospitals can determine the most appropriate facility to transport or transfer critically injured pediatric patients.

9. The patient shall be treated per established trauma care standards and protocols within the capability of the facility. A Level III trauma facility shall notify the regional emergency healthcare community when a usually-provided service, either “essential” or “desired”, is not available.

10. The major or severe trauma patient shall be met on arrival in the ED by a team of healthcare professionals as defined in the trauma activation protocols, credentialed by the hospital. The emergency physician shall direct the resuscitation until the arrival of the general surgeon.

11. The major or severe trauma patient shall be rapidly assessed, resuscitated, and stabilized according to established trauma management guidelines including ATLS, TNCC, ATCN, and ENPC.

12. Persons who have been involved in a high-energy event that results in a high index of suspicion for major or severe injury shall be evaluated expeditiously upon arrival by the emergency physician to determine if a surgical consult is necessary. Surgical consultations shall occur at the time of injury identification.

13. Disposition decisions shall be made expeditiously by a physician at the hospital and preparations for transfer or
admission begun as soon as possible after arrival at the facility.

15. Major or severe trauma patients who are intentionally retained longer than 2 hours, except where medically appropriate, shall receive the same level of care as the highest available within its TSA or within the TSA to which the patient’s condition warrants transfer-out.

16. The trauma medical director (TMD) shall formally review trauma panel members on an annual basis, to include at a minimum the review of number of admissions, deaths, complications, audit filter failouts, and timeliness of response to trauma activations and consults.

17. All healthcare professionals participating in the care of major or severe trauma patients shall participate in the PI program, and each discipline shall have representation at PI meetings.

18. All major or severe trauma patients' charts, including autopsy results when available, shall be reviewed concurrently and retrospectively by the trauma program’s PI process for appropriateness and quality of care provided by the hospital. Deviations from standards shall be addressed through a documented trauma PI process.

19. Standards and time frames for trauma registry data entry shall be developed, and shall be no longer than 45 days after the patient’s hospital discharge date.

20. The Texas Hospital Data Set essential items shall be electronically submitted to the State EMS/Trauma Registry on at least a quarterly basis, either directly or through a regional registry. Final autopsy results shall be included in the hospital trauma registry.

21. A Level III trauma facility shall participate in the PI program of the RAC in the TSA where it is located, and shall also participate as requested by executive boards, in the PI program of RACs into which the facility has transferred a patient.
Advanced (Level III) Trauma Facility
Audit Filters

1. Absence of an EMS patient care report on the medical record for a patient transported by pre-hospital EMS personnel.

2. EMS scene time of greater than 20 minutes.

3. Absence of pre-hospital essential data items on EMS patient care report.

4. No, or absence of documentation of, trauma team activation for a potential major or severe trauma patient per protocol.

5. Trauma team member response times of greater than 10 minutes for those in-house or greater than 30 minutes for those off-site.


7. Absence of documentation of trauma team response times, mechanism of injury, assessments, interventions, and response to interventions.

8. Absence of at least hourly documentation of blood pressure, pulse, respirations, Glasgow coma scale (GCS), and fluid intake and output for a major or severe trauma patient, beginning with arrival in the emergency department (ED), including time spent in radiology, up to admission, death, or transfer.

9. Absence of documented temperature on arrival, discharge, intra-operatively and when indicated.

10. Resuscitation protocol, treatment protocols, and/or standards of care not followed.

11. A patient with a GCS of less than 14 did not receive a CT of the head.

12. A comatose patient (GCS of 8 or less) leaving the ED before a definitive airway is established.

13. Required equipment, which is shared with other departments (i.e. fluid warmer), is not immediately available when requested.

14. Absence of physician notes, including daily physician notes on admitted trauma patients.

15. Major or severe trauma patients transferred to another health-care facility or admitted to surgery or ICU after spending greater than 2 hours in the ED.

16. A major or severe trauma patient admitted to the hospital under the care of a physician who is not a surgeon.

17. Patient sustaining a gunshot wound to the abdomen who is managed non-operatively.

18. Patient with abdominal injuries and hypotension (systolic BP less than 90 or age-appropriate hypotension) who does not undergo laparotomy within 1 hour of arrival in the ED.

19. Patient undergoing laparotomy performed greater than 4 hours after arrival in the ED.

20. Patient with epidural or subdural brain hematoma receiving craniotomy greater than 4 hours after arrival at the ED, excluding those performed for ICP monitoring.

21. Interval of greater than 8 hours between arrival and the initiation of debridement of an open fracture.
22. Abdominal, thoracic, vascular, or cranial surgery performed greater than 24 hours after arrival.


24. Patient requiring re-intubation of the airway within 48 hours of extubation.

25. Selected in-patient complications monitored as trends or sentinel events.

26. All delays in identification of injuries.

27. Major or severe trauma patient admitted to OR, ICU, or inpatient and then transferred to a higher level of care.

28. Denials of acceptance by a higher level of care facility.

29. Major or severe trauma patient transferred to a non-designated or lower level designated facility.

30. Diversion of major or severe trauma patients and/or denial of transfers-in from other facilities.

31. All trauma deaths.
**BASIC (LEVEL IV) TRAUMA FACILITY CRITERIA**

**Basic Trauma Facility (Level IV) -** provides resuscitation, stabilization, and arranges for appropriate transfer of major and severe trauma patients to a higher level trauma facility when medically necessary; 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 IV 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.

<table>
<thead>
<tr>
<th>A. TRAUMA PROGRAM</th>
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<tbody>
<tr>
<td>1. An identified Trauma Medical Director (TMD) who:</td>
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<tr>
<td>- is currently credentialed in Advanced Trauma Life Support (ATLS) or an equivalent course approved by the Department of State Health Services (DSHS),</td>
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<td>- is charged with overall management of trauma services provided by the hospital,</td>
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<tr>
<td>- 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.</td>
</tr>
<tr>
<td>a. There shall be a defined job description and organizational chart delineating the TMD's role and responsibilities.</td>
</tr>
<tr>
<td>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 program.</td>
</tr>
<tr>
<td>c. The TMD shall participate in a leadership role in the hospital, community, and emergency management (disaster) response committee.</td>
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<tr>
<td>d. The TMD should participate in the development of the regional trauma system plan.</td>
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| 2. 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)). |
| - has the authority and responsibility to monitor trauma patient care from emergency department (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. 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)).

3. An identified Trauma Registrar 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.

4. Written protocols, developed with approval by 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
   
   d. Triage, admission and transfer of trauma patients

B. PHYSICIAN SERVICES

1. Emergency Medicine - this requirement may be fulfilled by a physician credentialed by the hospital to provide emergency medical services.

   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.

   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 ED and are not board certified in Emergency Medicine.

   The emergency physician representative to the multidisciplinary committee that provides trauma coverage to the facility shall attend 50% or greater of multidisciplinary and peer
2. **Radiology**

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.

4. **Primary Care Physician** - The patient's primary care physician should be notified at an appropriate time.

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**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.

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.

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 plan.)

4. 50% of nurses caring for trauma patients should be certified in their area of specialty (e.g. CEN, CCRN, CNRN, etc.)

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**D. EMERGENCY DEPARTMENT**

1. Physician on-call schedule must be published.

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.*

   *Neither a hospital's telemental 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 the major/severe trauma patients shall be credentialed by the hospital to participate in resuscitation and treatment of said trauma patients, to include requirements such as 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.

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 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.

5. Nurse staffing in initial resuscitation area is based on patient acuity and trauma team composition based on historical census and acuity data.

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.

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.

8. Nursing documentation for trauma patients is systematic and meets the trauma registry guidelines.

9. Two-way communication with all pre-hospital emergency medical services vehicles.

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

   f. Supraglottic airway management device (e.g. LMA)

   g. Apparatus to establish central venous pressure monitoring equipment

   h. All standard intravenous fluids and administration devices, including large-bore intravenous catheters and a rapid infuser system

   i. Sterile surgical sets for procedures standard for the emergency room such as thoracotomy, venous cutdown, central line insertion, thoracotomy, airway control/cricothyrotomy, etc.

   j. Drugs and supplies necessary for emergency care

   k. Cervical spine stabilization device
1. 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.

m. Long bone stabilization device

n. Pelvic stabilization device

o. Thermal control equipment for patients and a rapid warming device for blood and fluids

p. Non-invasive continuous blood pressure monitoring devices

q. Qualitative end tidal CO₂ monitor

11. X-ray capability.

E. CLINICAL LABORATORY SERVICE (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.

2. Standard analyses of blood, urine, and other body fluids, including microsampling.


4. Capability for immediate release of blood for a transfusion and a protocol to obtain additional blood supply.

5. Coagulation studies.


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.)

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.

2. 24-hour coverage by in-house technician.

3. Computerized tomography.

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.

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.

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.)

   a. Audit of trauma charts for appropriateness and quality of care.

   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.

4. Multidisciplinary trauma conferences, continuing education and problem solving to include documented nursing and pre-hospital participation.

5. Feedback regarding major/severe trauma patient transfers-out from the ED and in-patient units shall be obtained from receiving facilities.

6. Trauma registry - data shall be forwarded to the state trauma registry on at least a quarterly basis.

7. 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.

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.

9. Times of and reasons for diversion must be documented and reviewed by the trauma PI program.

H. REGIONAL TRAUMA SYSTEM

1. Must participate in the regional trauma system per RAC requirements.

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.)
2. A system for establishing an appropriate landing zone in close proximity to the hospital (if rotor wing services are available.)

<table>
<thead>
<tr>
<th>J. PUBLIC EDUCATION/INJURY PREVENTION</th>
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<tbody>
<tr>
<td>1. A public education program to address the major injury problems within the hospital's service area.</td>
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<tr>
<td>Documented participation in a RAC injury prevention program is acceptable.</td>
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<tr>
<td>2. Coordination and/or participation in community/RAC injury prevention activities.</td>
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<tr>
<th>K. TRAINING PROGRAMS</th>
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<tr>
<td>1. Formal programs in trauma continuing education provided by hospital for staff based on needs identified from the trauma PI program for:</td>
</tr>
<tr>
<td>a. Staff physicians</td>
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<tr>
<td>b. Nurses</td>
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<tr>
<td>c. Allied health personnel, including mid-level providers such as physician assistants and nurse practitioners</td>
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</table>
**Basic (Level IV) Trauma Facility Standards**

1. A Level IV Trauma Facility shall be an active participant on the regional advisory council (RAC) of its trauma service area (TSA).

2. A Level IV Trauma Facility is available to stabilize all major and severe trauma patients 24 hours per day/7 days per week. Diversion of such patients to other facilities should be made rarely and only when resources are not available in the emergency department (ED) to stabilize and transfer these patients.

3. A Level IV Trauma Facility shall have an established relationship with the tertiary trauma facility(ies) to which it routinely transfers, to include such things as:
   - written transfer agreements
   - prospective dialogue regarding appropriate pre-transfer diagnostic laboratory and radiological studies so that each is cognizant of the other’s performance expectations
   - consideration of a single phone call transfer-request process
   - provision of feedback regarding transfers as part of the performance improvement (PI) program.

4. A Level IV trauma facility shall have age-specific policies/processes that demonstrate knowledge of the special resources potentially needed by injured patients of all ages, and is cognizant of the pediatric capabilities of the hospitals to which it customarily effectuates transfers so that it can determine the most appropriate facility.

5. A Level IV Trauma Facility shall have an established relationship with the EMS providers who transport to the facility to facilitate adequate pre-arrival notification, appropriate documentation, and appropriate pre-hospital care.

6. The patient shall be treated according to current practice per standards and protocols within the capability of the facility. A Level IV trauma facility shall notify the regional emergency healthcare community when a usually-provided service, either "essential" or "desired", is not available.

7. A Level IV trauma facility with on-call general surgeon(s) shall, in close collaboration with the appropriate RAC members, have guidelines that balance its capability to take critical trauma patients to the operating room for life/limb saving procedures with the customary “stabilize and transfer” standard for a Level IV trauma facility without surgical capabilities.

8. The major or severe trauma patient shall be met on arrival in the ED by a team of healthcare professionals as defined in the trauma activation protocols and credentialed by the hospital. When a physician other than the on-call emergency physician participates in the management of care, that physician shall also be credentialed by the hospital and must meet the trauma education requirements of the emergency physician.

9. Throughout their hospital stay, trauma patients shall be cared for by healthcare professionals with documented education and skill in the assessment and care of injuries.

10. The major or severe trauma patient shall be rapidly assessed, resuscitated, and stabilized according to established trauma management guidelines including ATLS, TNCC, ATCN, and ENPC.

11. Disposition decisions shall be made expeditiously by a physician at the hospital and preparations for transfer begun as soon as possible after arrival at the facility.

12. Major or severe trauma patients who are intentionally retained longer than 2 hours, except where medically appropriate, shall receive the same level of care as the highest available within its TSA or within the TSA to which the patient’s condition warrants transfer-out.

13. All healthcare professionals participating in the care of major or severe trauma patients must participate in the PI...
program, and each discipline shall have representation at PI meetings.

14. The medical records of all major and severe trauma patients, including autopsy results when available, shall be reviewed concurrently and retrospectively by the trauma program's PI process for appropriateness and quality of care. Deviations from standards of care shall be addressed through a documented trauma PI process.

15. Standards and time frames for trauma registry data entry and abstraction of PI issues shall be developed, and shall be no longer than 45 days after the patient's hospital discharge date.

16. The Texas Hospital Standard Data Set essential items shall be uploaded to the State EMS/Trauma Registry on at least a quarterly basis.

17. A Level IV trauma facility shall participate in the PI program of the RAC in the TSA where it is located, and shall also participate as requested by executive boards in the PI program of RACs into which the facility has transferred a patient.

18. The appropriateness of transferring-out major or severe trauma patients presenting to the ED of a Level IV trauma facility with on-call surgeon(s) shall be subject to 100% review in the hospital's PI program.
Basic (Level IV) Trauma Facility
Audit Filters

1. Absence of an EMS report on the medical record for a patient transported by pre-hospital EMS personnel.

2. EMS scene time of greater than 20 minutes.

3. Absence of pre-hospital essential data items on EMS patient care report.

4. No, or absence of documentation of, trauma team activation for a potential major or severe trauma patient per protocol.

5. Trauma team member response times of greater than 10 minutes for those in-house or greater than 30 minutes for those off-site.


7. Absence of documentation of trauma team response times, mechanism of injury, assessments, interventions, and response to interventions.

8. Absence of at least hourly documentation of blood pressure, pulse, respirations, Glasgow coma scale (GCS), and fluid intake and output for a major or severe trauma patient, beginning with arrival in the emergency department (ED), including time spent in radiology, up to admission, death, or transfer.

9. Absence of documented temperature on arrival, discharge and when indicated.

10. Resuscitation protocol, treatment protocols, and/or standards of care not followed.

11. A comatose patient (GCS of 8 or less) leaving the ED before a definitive airway is established.

12. Required equipment, which is shared with in-house departments (e.g. fluid warmer), not readily available when requested.


14. Patient admitted to surgery or ICU.

15. All delays in identification of injuries.

16. Patient transferred to another health-care facility after spending greater than 2 hours in the ED.

17. Patient admitted to the hospital then transferred to a higher level of care.

18. Major or severe (hemodynamically unstable) trauma patient transferred-out when a general surgeon was on-call to the ED.

19. Denial of acceptance by a higher level of care facility.

20. Major or severe trauma patient transferred to a non-designated facility.

21. Diversion of major or severe trauma patients.

22. All trauma deaths.
23. Patient admitted without being examined by a physician.