

# TEXAS DEPARTMENT OF HEALTH

## ESSENTIAL BASIC TRAUMA FACILITY CRITERIA DEFINED

A Basic (Level IV) Trauma Facility 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.

The purpose of this document is to clarify what is required to fulfill each of the **essential** criterion included in the Texas Trauma Facility Criteria - Basic (each essential criterion is listed and followed by an explanatory statement in italics). It is hoped that these clarifications will assist hospital representatives in working to prepare their facility for Level IV designation.

### 1. Emergency Room

*The emergency room staff should ensure immediate and appropriate care for the trauma patient. The emergency room physician should function as a designated member of the trauma team. The relationship between emergency room physicians and other participants of the trauma team must be established on an individual hospital basis, consistent with resources but adhering to established standards that ensure optimal care.*

#### A. Personnel

##### 1) Designated physician director

*An identified medical staff role assumed by a hospital-credentialed physician. Functions of this position may include: trauma patient care, development of written protocols, credentialing of medical staff who provide trauma care, continuing education programs, oversight of continuing education of physicians providing trauma care, quality improvement (QI) activities related to trauma, participation in regional trauma system planning, and support of public education programs. This physician should work very closely with the trauma nurse coordinator in preparing for designation and maintaining standards of care.*

#### B. Written protocols, developed with approval by the hospital's medical staff, for:

##### 1) Trauma team activation

The Trauma Team Activation Protocol should delineate specific types of injuries/patient conditions (based on established injury severity criteria) which activate the team, list team members, and include response times of team members, both in-house and off-site.

##### 2) Identification of trauma team responsibilities during a resuscitation

The roles of each trauma team member during the initial assessment and emergent care of the trauma patient should be outlined (what each team member does immediately upon arrival of a critical patient to determine priorities of care, the secondary assessment and interventions). This information may be developed as a separate protocol, or may be included in the Trauma Team Activation Protocol.

3) Resuscitation and Treatment

*All team members should coordinate their interventions defined by established principles and guidelines. Resuscitation is an intense period of medical care where initial and continuous patient assessment guidelines, concurrent diagnostic and therapeutic procedures, and, at times, even commencement of surgery to save life or limb. Resuscitation is the group of coordinated actions performed to secure airway, support breathing, and restore circulation.*

4) Admission and transfer

Admission and transfer protocols should describe the process for admission of a patient as a hospital inpatient, and the process for preparation and movement of a patient to another trauma facility for definitive, or tertiary care. All existing state and federal laws related to patient transfers continue to be applicable (e.g. COBRA).

Hospital Triage Guidelines for Transfer should include a list of injuries/patient conditions which are beyond the hospital's capability to treat definitively; transfer procedures should begin immediately upon arrival of these types of patients.

C. 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 (such as a written disaster plan).

*The hospital disaster plan may be used to fulfill this criteria. The plan should be functional and appropriate. During the site survey questions will probably be asked about the hospital's participation in disaster drills (facility-wide, local, and/or regional).*

D. Equipment for resuscitation and to provide life support for the critically or seriously injured shall include but not be limited to:

***The following equipment should be functional and readily available at the bedside in the emergency room.***

1) Airway control and ventilation equipment such as laryngoscopes and endotracheal tubes of all sizes, bag/mask resuscitator, pocket masks and oxygen

*Oxygen masks, nasal cannulas, bag-valve-masks, laryngoscopes, endotracheal tubes, Magill forceps, and endotracheal tube stylets in sizes for all ages (from neonates to large adults) should be included.*

3) Suction devices

*Standard mechanical suction devices such as a wall suction or a portable mechanical suction should be available.*

4) Electrocardiograph - oscilloscope - defibrillator

*An electronic monitoring device with the capability to monitor heart rate and a defibrillator equipped with pediatric and adult paddles should be available.*

6) All standard intravenous fluids and administration devices, including intravenous catheters and rapid infusion devices

*Intravenous fluids (including normal saline, lactated ringers solution and lactated ringers solution with dextrose), intravenous infusion catheters (14 gauge - 24 gauge), intraosseous cannulas and a blood pump should be easily accessible.*

7) Sterile surgical sets for procedures standard for the emergency room, such as thoracostomy, venesection, diagnostic peritoneal lavage, cricothyroidotomy, etc.

*Thoracostomy, venesection, diagnostic peritoneal lavage, and cricothyroidotomy trays should be available along with written procedures for these activities. Other types of trays identified by hospital staff may also be utilized, but also require documented procedures.*

8) Gastric lavage equipment

*Vented nasogastric tubes (in sizes for all ages) and catheter tip syringes should be available.*

9) Stabilization devices for cervical injuries

*Backboards, stiff cervical immobilization collars, head immobilizers, towel rolls or 1000cc IV solution bags along with wide adhesive tape and child safety seats are all acceptable cervical stabilization devices.*

10) Stabilization devices for long bones

*Splints, armboards, pillows, gauze dressing material (such as kling), triangular bandages or similar equipment are all acceptable. A device for traction splinting (such as a Hare traction splint) sized to fit pediatric and adult patients should also be available.*

11) Thermal control equipment

a) for patient

*A mechanical patient warming device (such as a K-pad, or warming lamp )is the preferred equipment for patient warming. Blankets, preferably warmed blankets, are also acceptable. The blanket warmer may be located outside the emergency room as long as it is readily accessible to the emergency room staff at all times.*

b) a warming device for blood and fluids

*A mechanical blood warming apparatus is preferred equipment in thwarming of intravenous solutions and blood products during infusion. Atubing coil and warm water bath will meet this criteria, as long as the process is monitored through the QI program. Storage of blood warmingequipment outside the emergency room is acceptable as long as it is readilyaccessible to the emergency room staff at all times.*

12) Non-invasive continuous blood pressure monitoring device

A mechanical blood pressure monitoring apparatus, capable of continuous monitoring, will meet this criteria. Storage of this equipment outside the emergency room is acceptable as long as it is immediately accessible to the emergency room staff.

13) Transcutaneous oximeter

*A non-invasive photoelectric monitoring device for determining the amount of oxygen in the blood, capable of continuous monitoring, will meet this criteria. Storage of this equipment outside the emergency room is acceptable as long as it is immediately accessible to the emergency room staff.*

E. Other

1) Radiological Services

a) Technician on-call and promptly available within thirty minutes of request

*Consideration should be given to inclusion of the radiology technician as a trauma team member. On-call response times should be monitored through the QI program.*

2) Clinical Laboratory Services (available 24 hours a day)

*Consideration should be given to inclusion of the radiology technician as atrauma team member. On-call response times should be monitored through the QI program.*

a) Standard analyses of blood, urine and other body fluids

*Laboratory tests such as CBC and blood chemistries, urinalysis, stool and gastric guiac should be available.*

c) Capability to give uncross-matched Blood

*The laboratory should have a procedure in place to release uncrossmatched blood.*

d) Blood gases and Ph determinations

*The capability to perform analyses of arterial/venous blood to ascertain gas and Ph values should exist.*

3) Two-way communication with prehospital emergency medical services vehicles

*The ability to communicate with ambulances transporting patients to the Hospital must be maintained. This criterion may be accomplished by utilizing a telephone, cellular telephone, radio or other device.*

## 2. Physician Services

a. On call and promptly available within 30 minutes of request from inside or outside the hospital:

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

*This criterion includes all physicians who provide medical coverage in the emergency room. The hospital should have in place a mechanism for credentialing medical staff that work in the emergency room.*

a) At least one staff physician is credentialed in ATLS or an equivalent course approved by the Texas Department of Health (TDH) at the time of designation.

*ATLS is currently the only TDH approved trauma care course for physicians. The physician holding this credential should be active in providing emergency room coverage. Completion of the course by a physician staff member up to six months after designation fulfills this criteria.*

b) Any physician providing this coverage should be credentialed in ATLS or an equivalent TDH approved course at the time of re-designation. A board certified emergency physician is exempt from this requirement if the physician participates in the care of at least 10 major or severe trauma patients in the previous 12 month period or completes an ATLS equivalent number or trauma continuing medical education hours.

**Documentation to fulfill this requirement should be available at the time of survey.**

A physician who is providing this coverage should be credentialed by the hospital to participate in the resuscitation and treatment of trauma patients to include such as board certification, trauma continuing education, compliance with trauma protocols, and participation in the performance improvement program.

c) A physician on call must be activated on EMS assessment for the severe or major trauma patient. Response time should not exceed thirty minutes of patient arrival (this criterion should be monitored in the performance improvement program). Physician on-call schedule must be published

*The schedule of on-call physicians should be posted and immediately available to all staff (nursing and clerical) working in the emergency room.*

4) Radiology

a. Physician on-call schedule must be published

*The schedule of on-call physicians should be posted and immediately available to all staff (nursing and clerical) working in the emergency room.*

**3. Nursing Services**

A. An identified Trauma Nurse Coordinator/Trauma Program Manager, who is a registered nurse, with overall management responsibility for the trauma program. There should be a defined job description and organizational chart delineating the Trauma Nurse Coordinator's/Trauma Program Manager's role and responsibilities. The functions of trauma coordination may be delegated to other positions within the organization.

*The trauma coordinator should have responsibility and authority to monitor and promote all trauma related activities associated with patient care.*

*The role of the trauma nurse coordinator should be described in a written job description. The organizational chart serves to define how the position of trauma nurse coordinator is integrated into the hospital organization and identifies the lines of authority and responsibility of that role.*

C. Written standards on nursing care for trauma patients in all areas of the trauma facility are to be documented

Standards of care for trauma patients should be established in all patient care areas and should guide all nursing care provided for the pediatric and adult trauma patient. These standards should reflect nationally recognized standards for trauma care. Trauma Standards of Care are statements of the principles your facility follows when caring for trauma patients; they may include goals and objectives, identified tasks, patient outcome criteria, etc.

- D. All nurses caring for trauma patients have documented knowledge and skill in trauma nursing to include pediatric and burn patients (i.e. trauma specific orientation, skillschecklist, continuing education, etc.)

An organized, trauma related, orientation should be in place for nurses assigned to the emergency room, including a skills checklist. Staff attendance at trauma related continuing education presentations should be documented. A credentialing mechanism to demonstrate maintenance of specific skills related to trauma patient care is encouraged.

- E. At least one member of the registered nursing staff has successfully completed an Advanced Cardiac Life Support (ACLS) course, or hospital equivalent, a nationally recognized pediatric advanced life support course [i.e. Pediatric Advanced Life Support (PALS)], and the Trauma Nurse Core Curriculum (TNCC) within 12-18 months of the date of designation

A member of the nursing staff must hold current credentials in Advanced Cardiac Life Support (ACLS) and a pediatric advanced life support course (PALS, ENPC or PEPP *are all acceptable*). *These credentials may be held by a single individual, or by two or three staff members, however, those holding the credentials should be active in caring for trauma patients.*

1. At least one of the nurses serving on the Trauma Team must have successfully completed the TNCC or an equivalent TDH approved course by re-designation.

*A member of the nursing staff must hold current credentials in Trauma Nurse Core Curriculum or equivalent TDH approved course. These credentials may be held by a single individual, or by two or three staff members, however, those holding the credentials should be active in caring for trauma patients.*

#### **4. Quality Improvement**

- A. An organized quality improvement program, established by the hospital, to include trauma audit filters(see attached standards list).

*An organized quality improvement program, in which trauma indicators have been developed and are monitored on an ongoing basis, should be implemented. This function may be performed by the hospital quality assurance/improvement coordinator who works closely with the trauma nurse coordinator and physician director of the emergency room.*

*The QI program should also include the monitoring of documentation of patient care in the medical record, the audit of trauma charts for completeness of care and ongoing mortality and morbidity review, including all trauma deaths. Multidisciplinary trauma conferences are encouraged, but are not an essential QI activity.*

- 1) Systematic documentation of trauma care which meets state trauma registry guidelines

*Guidelines should be in place which facilitate organized, thorough documentation of the care provided to trauma patients. This documentation should include the information identified in the "Texas Hospital Standard Data Set".*

2) Audit of trauma charts for completeness of care

*The medical records of all trauma patients should be audited to assure that appropriate, complete care was delivered according to identified standards of care. Any issues identified in the audit process should be addressed through the QI program.*

3) Morbidity and mortality review, to include all trauma deaths

*Trauma patients, especially all trauma deaths, should be included in the hospital morbidity and mortality review process that facilitates physicians to discuss identified issues, concerns and preventability classification of deaths and/or complications.*

B. Trauma registry - data will be forwarded to the state trauma registry

*Trauma patient statistics should be incorporated into the PI process through collecting of data and documentation of severity of injury (by revised trauma score, age, injury severity score) and outcome (survival, length of stay, ICU length of stay). The hospital should be collecting data in a facility or regional trauma registry, including the components of the "Texas Hospital Standard Data Set". The data included in the "Texas Hospital Standard Data Set" should be forwarded to the state trauma registry on at least a quarterly basis.*

*Establish and implement criteria for inclusion of trauma cases into the trauma registry. Trauma Registry inclusion criteria: All patients with at least one injury ICD-9 diagnosis code between 800.00 and 959.9, including 940 - 949(burns), excluding 905 - 909 (late effects of injuries), 910 - 924 (blisters, contusions, abrasions, and insect bites), 930 - 939 (foreign bodies), AND who were admitted OR who died after receiving any evaluation or treatment or who died after receiving any evaluation or treatment or were dead on arrival OR who transferred into or out of the hospital.*

**5. Regional Trauma System**

Hospital must participate in the regional trauma system

*Representatives of the hospital should be attending the Regional Advisory Council (RAC) meetings of their Trauma Service Area. They should also be participating in RAC committees, as appropriate, to assist in the development of the regional trauma system and regional trauma system plan.*

**6. Transfer Agreements**



- A. Hospital must have transfer agreements for patients needing higher level of, or specialty, care (i.e. surgery, burns, etc.)

*Written transfer agreements with all facilities to whom patients are transferred, signed by both parties, are preferred. Verbal agreements with these facilities will fulfill the criteria.*

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

*A designated landing zone shall be established to meet regulatory guidelines of the FAA and provide for safe and rapid transport of the trauma patient.*

**7. Public Education**

A program to address the major injury problems within the hospital's service area. Documented participation in a RAC regional program is acceptable.

*The hospital should be participating in activities which provide education and information to the public in relation to trauma. CPR classes, babysitter classes, bicycle helmet or safety restraint awareness and/or education and presentations on trauma system development and the Regional Advisory Council (RAC) are a few examples of acceptable activities. Participation in RAC sponsored activities may fulfill the criteria.*

**8. Training Programs**

Formal training programs in trauma continuing education will be made available by the hospital to physicians, nurses and allied health personnel based on needs identified from the quality improvement program.

*Educational opportunities should be made available to all levels of staff (i.e. physicians, nurses, ancillary staff) by the hospital based on needs identified in the trauma QI program.*