



Emergency and Trauma Care in Texas

Primer

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Primer: Trauma Care in Texas

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- What is Trauma?** **Trauma** is an injury caused by an external, physical force. Most often trauma is a result of motor vehicle crashes, falls, gun shot wounds, fires and burns, stabbing or blunt assault. Poisonings, near-drownings and suffocations, other than those due to external forces are to be excluded from this definition.
- Who is at risk?** **Everyone is at risk.** Trauma does not discriminate. All persons, regardless of age, ethnicity, gender, socioeconomic/financial class and insurance status are at risk of experiencing trauma-related incidents. Trauma can occur at any moment of the day, in any place and to anyone.
- What is a Trauma Care System?
Regional Trauma System Plan?** A **Trauma Care System** is a coordinated effort to provide care to injured patients from the time of injury through the definitive care and treatment in a hospital to rehabilitation. Components of care are planned, organized, monitored and corrected. A **Regional Trauma System Plan** approved by the Texas Department of Health's (TDH) Bureau of Emergency Management includes these components: access to the trauma care system (i.e. 911), communication via dispatch, pre-hospital care, air transport, pre-hospital triage, diversion and bypass guidelines, inter-hospital transfer, trauma center designation, medical oversight, quality assurance, specialty care problems, research, rehabilitation, injury prevention/public education and disaster planning. The delivery of care is regionalized to match the severity of injury to the available resources in a geographical area.
- Does Texas have a Trauma Care System?** **Yes.** Planning & development of a statewide trauma system began with the Omnibus Rural Health and Security Act of 1989. This required the Bureau of Emergency Management of TDH to oversee the planning, development and implementation of the statewide system while acting as the designating agency for Texas trauma centers. The system includes 22 Trauma Service Areas (TSA) that are individually managed by a Regional Advisory Council (RAC), 190 designated trauma centers (as of October 1, 2001), statewide EMS accessibility and a Trauma Registry that provides statistics on trauma in Texas. No funding towards development of the statewide trauma system was provided by this act.
- What is a TSA?
RAC?** A **TSA or Trauma Service Area** represents a geographical area of the state that is composed of at least three Texas counties and includes a regional trauma system plan specifically designed to meet the trauma care needs within its region. An alphabetic letter identifies each of the 22 TSAs (A thru V). (See Map A)
A **RAC or Regional Advisory Council** develops, implements and oversees the regional trauma system plan within its Trauma Service Area and makes quarterly reports to the Bureau on development status and outcomes. All health care entities that care for trauma patients are eligible for RAC membership.
- What is Triage?** **Triage** is the act of sorting patients after a primary assessment and identification of major injuries by a trained medical professional. In Texas, prehospital triage for injury victims is guided by the prehospital triage protocol adopted by the RAC of each TSA and approved by TDH.
- Where do Texans go to receive trauma care?** By air or ground EMS transport, trauma patients are taken to one of the 190 designated trauma centers capable of providing stabilization and or definitive treatment for critical injuries. This process of assigning and transporting patients to the most appropriate trauma facility is referred to as hospital triage. The appropriateness of trauma care is categorized by trauma center designation levels I, II, III or IV. (See Map B)



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What are the different levels of Trauma Centers?

The American College of Surgeons (ACS) recognizes four levels of trauma center verification; all of which currently operate in Texas. Today, there are approximately 190 designated trauma centers with Level I being the most comprehensive. The distribution of trauma center designation and differences are as follows:

Level I	11	COMPREHENSIVE: Provides a full range of services for treatment of major & severe trauma patients and includes medical education and research programs in trauma care
Level II	10	MAJOR: Provides a full range of services without the component of research provided in Level I centers
Level III	35	GENERAL: Availability of a General Surgeon, Orthopedic, Neurosurgical and Emergency Services specialists on call 24/7
Level IV	134	BASIC: Provides resuscitation, stabilization, and arrangements for appropriate transfer of major & severe trauma patients to a higher level trauma facility

What is Tertiary Trauma Care?

Tertiary Trauma Care refers to the capability of providing trauma care services at the minimum of Level III designation standards. This includes the requirement that all trauma patients have prompt access to a surgeon. In Texas, 20 of the 22 TSAs have at least one Level III designated trauma center. This represents tertiary trauma care coverage for approximately 95% of all Texas counties.

Are hospitals required to participate in the Texas Trauma System?

No. Texas has a voluntary trauma system. Hospitals can choose to participate in the system by hiring a surveyor to verify whether the facility meets the requirements for trauma center designation. The ACS conducts verification for Level I, II, III and IV facilities whereas TDH-credentialed surveyors verify Level III and IV facilities. Hospitals pursuing Level III and IV verification have the option of undergoing verification by the ACS; though none have chosen to do so. All facilities are then approved or denied for trauma center designation by the TDH.

Why don't we have Pediatric Trauma Centers?

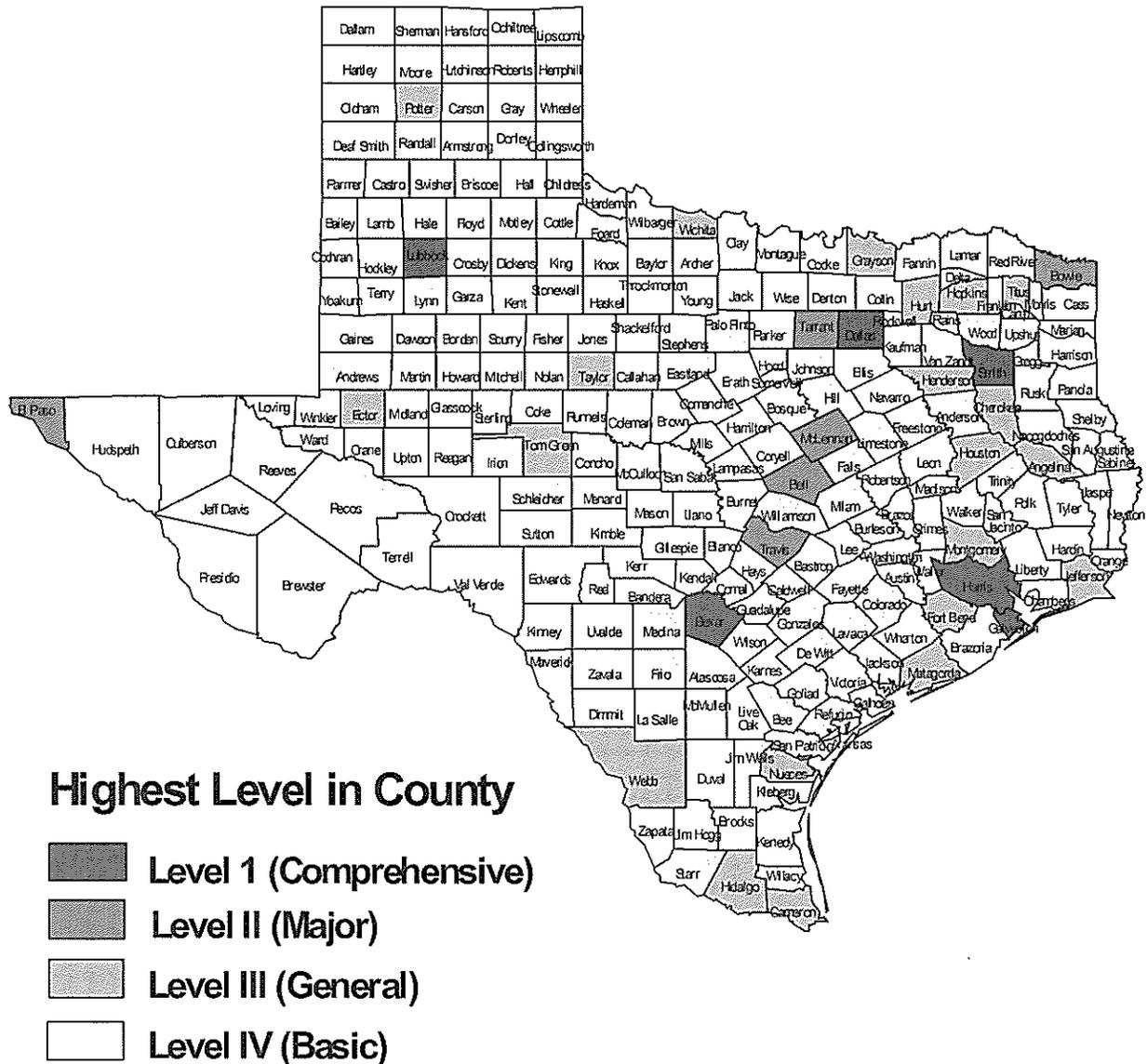
Texas does not have a specific designation process for pediatric trauma centers, though some children's hospitals provide specialized medical services for trauma needs equivalent to those provided at Level I and II trauma facilities. Verification for Level I and II pediatric trauma centers is conducted by the ACS and optional for these children's hospitals. The current designation process includes a pediatric component to obtain designation status. Since 1999, the TDH has drafted criteria for the categorization of pediatric centers regarding their ability to care for critically ill or injured children.

What costs are involved?

Costs for providing trauma care are higher than costs for emergency care due to the increased acuity and severity of injury to the patient. This high level of care requires highly-specialized and trained medical staff, high-tech equipment for radiology and lab purposes, on-hand supplies including medications and administrative support; all of which is required to perform on a standby basis, 24 hours a day and 7 days a week. According to the TDH, costs associated with providing trauma care reached nearly \$600 million in 1995. The TDH also reports that among the total costs of providing trauma care, hospital charges reached a minimum of \$450 million in 1999.

MAP B:

TEXAS Counties with Designated Trauma Hospitals, 2001



Texas Institute for Health Policy Research, 2001

NOTE: Map is based on the distribution of 184 designated trauma hospitals as defined by the TDH, March 2001.