

Living Life at Level IV

Challenges and Blessings at a Level IV Trauma Center



What Is A Trauma Center?



“a hospital capable of providing specialized medical services and resources to patients suffering from traumatic injuries”

1861-1865: Triage, aid stations, and rapid transport to field hospitals-significant achievement. President Lincoln drove creation of the first trauma manual

WWII 1939-1945: Researchers went into the battlefield to study outcomes (or how they fare after their treatment)

1946: The Hill-Burton Act provided grants to build hospitals but required those hospitals have ER's¹⁰
Ambulance services were nonexistent, or if present, run by funeral homes.

1950-1975: Korean and Vietnam Wars further advanced medical transportation (helicopters) demonstrating rapid evacuation to definitive care (a trauma center), saves lives.¹¹

1966: EMS, 911, Paramedic Training, National Trauma Database, National Highway Traffic Safety Administration (NHTSA), helmet laws to assess federal funds

1968: Required seat belts in all cars though it took until 1969: First airbags for cars

1973: the Emergency Medical Services Systems Act established a grant program to support regional EMS systems, emergency medical technician (EMT) training and development of air transport services.

1975: First bike helmet

1976: ACS released *Optimal Hospital Resources for the Injured Patient* manual-criteria for an ideal trauma center.

1978: ATLS

1984: States to begin passing laws requiring seat belts. Nebraska-1986

2023: Helmet laws repealed by the state of Nebraska (1989)

but don't worry, they have to wear glasses...

(cue BIG collective sigh) *Although good for the donor registry*



Level I



Capable of providing total care for every aspect of injury – from prevention through rehabilitation.

Elements of Level I Trauma Centers Include:

- 24-hour in-house general surgeons with ICU
- Availability of care in specialties such as orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology, **internal medicine, plastic surgery, oral and maxillofacial, pediatric** and critical care.
- Referral resource for communities in nearby regions.
- Provides trauma prevention and continuing education programs for staff.
- Resident teaching and research
- Annual volume of at least 1200 trauma's
- Creighton/Bergan & UNMC



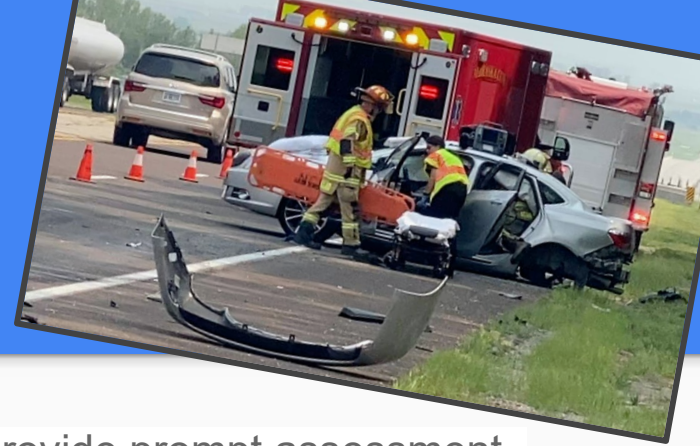
Level II

A Level II Trauma Center is able to initiate definitive care for all injured patients.

Elements of Level II Trauma Centers Include:

- 24-hour immediate coverage by general surgeons, as well as coverage by the specialties of **orthopedic surgery, neurosurgery**, anesthesiology, **emergency medicine, radiology and critical care**.
- Provides trauma prevention and continuing education programs for staff.
- Incorporates a comprehensive quality assessment program.
- Children's, Bryan, Good Samaritan, Regional West

Level III



A Level III Trauma Center has demonstrated an ability to provide prompt assessment, resuscitation, surgery, intensive care and stabilization of injured patients and emergency operations.

Elements of Level III Trauma Centers Include:

- 24-hour immediate coverage by emergency medicine physicians and the prompt availability of general surgeons and anesthesiologists.
- Has developed Transfer Agreements.
- Provides back-up care for rural and community hospitals.
- Provides trauma prevention and continuing education programs for staff.
- Columbus, North Platte, Norfolk, Hastings, St. E's, St. Francis, etc.



Level IV

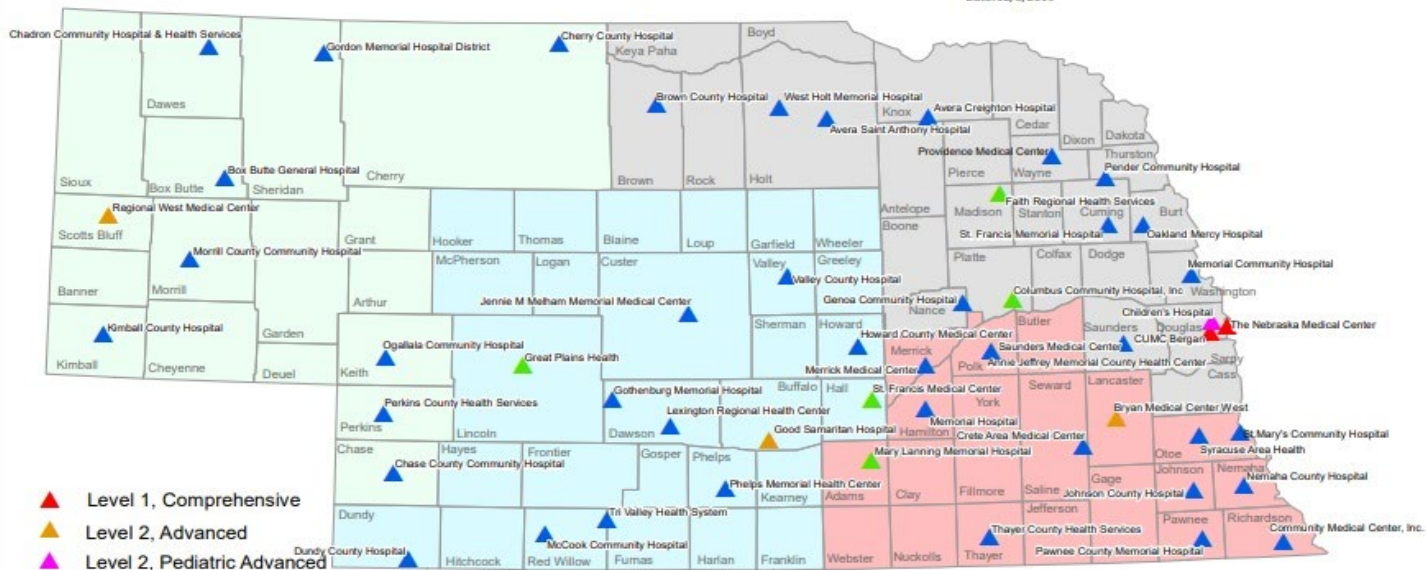
A Level IV Trauma Center has demonstrated an ability to provide advanced trauma life support (ATLS) prior to transfer of patients to a higher level trauma center. It provides evaluation, stabilization, and diagnostic capabilities for injured patients.

Elements of Level IV Trauma Centers Include:

- Basic emergency department facilities to implement ATLS protocols and 24-hour laboratory coverage. Available trauma nurse(s) and physicians available upon patient arrival.
- May provide surgery and critical-care services if available.
- Has developed transfer agreements
- Involved with prevention efforts and must have an active outreach program for its referring communities.
- The rest of us...CAH's

Nebraska Hospital Trauma Centers

Date: 12/3/2019



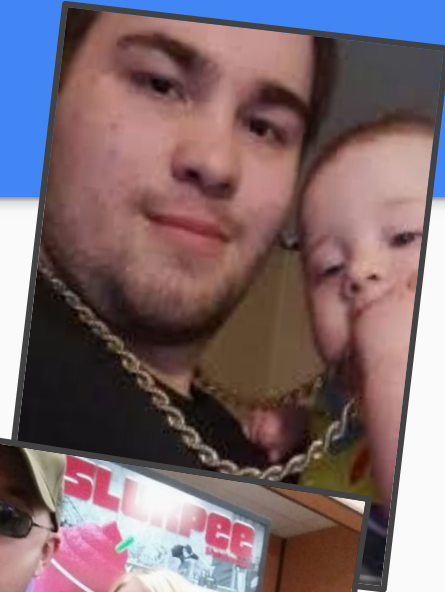
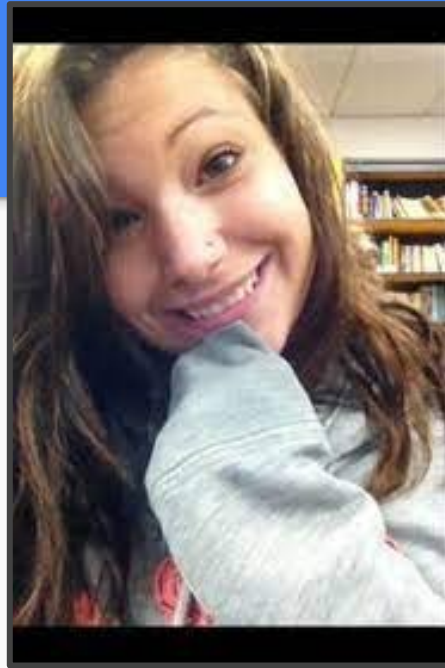
- ▲ Level 1, Comprehensive
- ▲ Level 2, Advanced
- ▲ Level 2, Pediatric Advanced
- ▲ Level 3, General
- ▲ Level 4, Basic

Trauma Regions:

- Trauma Region 1
- Trauma Region 2
- Trauma Region 3
- Trauma Region 4



Who Gives a Flying Fig Newton?



REDUCING THE IMPACT OF INJURY



- The optimal way is to **prevent** their occurrence. When prevention fails, EMS providers must ensure that patients receive **prompt and appropriate emergency care at the scene** and are **transported** to a health-care facility.
- The appropriate facility can have a **profound impact on subsequent morbidity and mortality**.
- **Transporting all injured patients to Level I trauma centers**, regardless of the severity of their injuries, **could burden those facilities unnecessarily** and make them less available.

Taking the **less severely injured to a lower level of trauma care will yield lower overall costs** and increased efficiency in the system.

- The National Study on the Costs and Outcomes of Trauma (NSCOT) identified a **25% reduction in mortality** for severely injured patients who received care at a Level I trauma center rather than at a nontrauma center.

The Good, the Bad and the Downright Ugly



The Bad

- There is **one Doctor**-maybe an APP
- There is **one lab tech**
- There is **one radiology tech**
 - They do X-Ray and CT
- There is **one nurse**
- There **Might Be** a CRNA, Paramedic/EMT, Patient Tech
- We have 3 rooms and one trauma bay
- We handle ALL the patients
- We are NOT a Level 1
- We know them! They are our friends, neighbors, & family

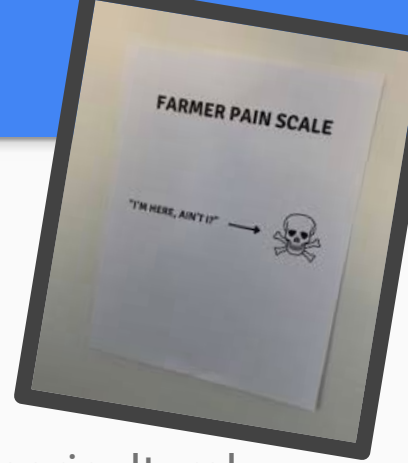


The Downright Ugly



*We are a rural community:

Tractors, Animals, Gravel Roads, ATV/UTV's, Shotguns, PTO's, Underage Drivers, Elderly, Industry, Surrounded by highways and interstates, Grain Bins, Tall Fields and unmarked intersections, etc



*5.5 X increased rate of fatalities in agricultural employment than non-agricultural.

*14% more likely to die following traumatic injury than non-rural

*About 12,000 injuries/year that require time away from work. Notoriously under-reported

*29.7 million Americans lack adequate trauma care, living more than one hour away from a Level I or Level II trauma center by car or helicopter

People don't know to only get hurt close to a Level 1.

Finally...The Good

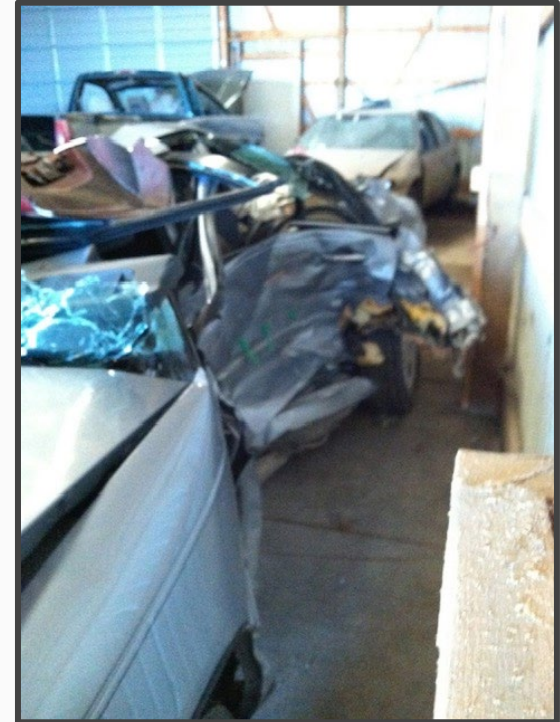
- * Immediate access to specialized well trained care
- * Continuous staff education and review of process
- * Improved outcomes
- * Decreased burden on system
- * Decreased transfer time
- * 24/7 onsite care with diagnostic capabilities
- * Community outreach and education-less severe injuries
- * YOU KNOW THEM!



True Blessing of Working in a Level IV...



Rev. Richard Fairbanks
9/10/2012



No One Has Your Back Like a Small Town



Questions?

