Frontier vs ACS Trauma Centers: triage priorities

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Objectives

- Define Secondary Over triage
- Define differences between ACS trauma centers and Frontier trauma centers
  - Facilities
  - Staffing
  - Resources
- Discuss management of a severely injured trauma patient in a Frontier center
Secondary Overtriage

- Getting the right patient to the right place quickly
- Not overburdening the higher level trauma centers with low level trauma
Trauma resuscitations in a rural or frontier trauma center is infinitely **HARDER** than in an ACS Level 1 or 2 trauma center

- Frequency of trauma alerts
- Resources
Facilities
Staffing

- In-house trauma surgeons
  - Anesthesia Providers
  - OR crews

- On call specialties
  - Neurosurgery
  - Advanced orthopedics
  - Interventional Radiology
  - Maxillofacial
  - Optho
  - Hand
Residents
Spearfish Staffing

- Home call for
  - Surgeons
  - Anesthesia providers
  - RT
  - Xray techs
Triage priorities

- ATLS still applies in Frontier Trauma centers

- Difference is transfer thought process
  - This decision needs to be made quickly and often WITHOUT all the information
  - This decision needs to be made quickly and often WITHOUT all the information
Traumatic acute subdural hematoma: major mortality reduction in comatose patients treated within four hours.

Seelig JM, Becker DP, Miller JD, Greenberg RP, Ward JD, Choi SC.

Abstract

Reducing time-to-treatment decreases mortality of trauma patients with acute subdural hematoma.

Tien HC¹, Jung V, Pinto R, Mainprize T, Scales DC, Rizoli SB.
Triage

- Primary Survey sometimes is all we get through

- THIS IS NOT A FAILURE
Primary Survey

- Often my determination for transfer happens at this point...

- Airway—intubation if indicated

- Breathing—PE and CXR to rule out pneumo and thoracic cavity bleeding
Triage

- Circulation- IV access, pulse exam, vitals (BP and HR), FAST exam to rule out intracavitary bleeding

- **If you have surgical capabilities and patient is hypotensive with intracavitary bleeding you MUST operate before transfer**
  - Splenectomy
  - Packing (preperitoneal and peritoneal)

- Disability- Quick GCS exam before intubation so the neurosurgeon knows what the exam was.
The Impact of Combined Prehospital Hypotension and Hypoxia on Mortality in Major Traumatic Brain Injury

Daniel W. Spaite, MD,1,2 Chengcheng Hu, PhD,1,3 Bentley J. Bobrow, MD,1,2,4 Vatsal Chikani, MPH,1,4 Bruce Barnhart, RN, CEP,1 Joshua B. Gaither, MD,1,2 Kurt R. Denninghoff, MD,1,2 P. David Adelson, MD,5 Samuel M. Keim, MD, MS,1,2 Chad Viscusi, MD,1,2 Terry Mullins, MBA,4 and Duane Sherrill, PhD3
13151 Patients

11545 Without hypotension nor hypoxia

604 with hypotension only
790 with hypoxia only
212 had hypotension and hypoxia

5.6%, 20.7%, 28.1%, 43.9%
Triage

- Studies we always do before transfer
  - CXR
  - Pelvis xray
  - FAST exam
Triage

- Decision to transfer severely injured patients is made in my facility 95% of the time WITHOUT CT SCANS

- VRADS
  - Turn around time can be > 1 hour
Transfer method

- Majority is by ground
  - No faster by air unless > 45 minutes
  - Air is used for environmental reasons or need for specialized care
Summary

1. Understand fully what your capabilities are. Facility, staffing, resources.
2. Take care of what you are capable of caring for.
3. Make the determination for transfer early. Sometimes before you even start your resuscitation.
4. Operate if you have to before transfer.
5. Early transfer is NOT A FAILURE.