Remedy for Extremity Disamenity: 
Re-Visiting Field Amputations & 
Response Paradigms

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• 0245, man hit by freight train in Philadelphia
• Left leg below knee caught between wheels
• Amputation necessary for extrication
Physician Response Team

• PFD has procedure for requesting MD to assist with surgical extrications, MCIs
• Medical command hospital-based
  – 5 contracted hospitals
• Very rarely requested
  – Last time years ago
  – Last time MD intervened March 7, 1990, when subway derailed in tunnel, killing 4, injuring 158
Physician Response Team

• Hospital provides medical supplies, meds
  – PFD provides PPE, keeps providers safe
• Unfunded
• No ongoing training
• Liability
• Because rarely needed, hard to sustain
• Is there a better way?
Considered as last resort?

- Surgical airway
- Perimortem C-Section
- Pericardiocentesis
Scope of the Problem

- Ultra low frequency
- Ultra high risk

13% of surveyed with field amputation in the preceding 5 years.
96% had no training in the procedure
1% with a protocol

*Prehosp Disaster Med 1996*
Goals

• Collate recent cases around the country
• Publish case series
• Identify/share best practices
Indications

• Immediate life threat
• Hazard presents a threat to life of the victim or rescuer
• Only viable means to extricate the victim
• Consideration in order to access other living victims
Procedures

- Amputation
- Disarticulation
- Dismemberment

Proximal hemorrhage control

Degree of urgency
Medications

- Ketamine
- Etomidate
- Antibiotic
- Analgesic
- Tetanus immunization
Resiliency

• Unusual event
  – Patient
  – Bystander/co workers
  – Rescuers

  – Initiate your stress debrief process
Training

- Trauma/ortho surgeon
- EMS physician
- Prehospital provider

USAR and military exposure
Sustainment of skills
Model

- Trauma surgeon/Trauma center
- EMS physician
- ED physician
- Prehospital provider
Environment

• Confined space
• Explosive hazard
• Heat/Cold
• Disaster response
Logistics

- Notification
- Scene transport
• Decision making?
  – Physician
  – Medic
  – Patient
  – Incident Commander

• Mode of transport

• Destination decision

• Media
• What is your process
• How do you exercise/ function check your process
• Personnel changes
• Costs
Equipment List

- Hemorrhage control
  - Tourniquets (multiple), hemostatic dressing
- Gigli saw– handles and multiple blades
- Power saw
- Field expedient saw
- Scalpel
- Surgical scissors/ clamps
- Wound care items
Cutting

• Gigli saw
• Ortho saw
• Reciprocating saw (sawz all)
• Hurst tool
• Field expedient
Texas Man Loses Leg after Industrial Accident

San Antonio, TX- A man working at a San Antonio cardboard plant had to one of his legs amputated following an industrial accident on Monday night, according to local TV station KHOU.

The worker, whose identity has not been released, was working at Bates Container, manufacturer of cardboard boxes, while he was operating a pulley system. The worker stepped into a dangerous area and his leg became trapped between two rollers that are 3 feet in diameter and 16,000 lbs. each.

"Basically he was entrapped between two large rollers, and we had to get him out of the two rollers," said San Antonio Fire Department Battalion Chief of Special Operations Walter Yeats.

However, the emergency crew from Bexar County was unable to free the man's leg from the equipment and called a trauma surgical team. The man's leg had to be amputated on the scene, which took the surgeon roughly 20 minutes.

The injured man was stabilized and flown to a nearby hospital.

The Bates plant assured that they had proper safety procedures in place and employees confirmed that they receive on-site safety training.

Since he was injured on the job, the man is eligible for worker's compensation, but that often isn't enough for the person to survive, especially if they become permanently disabled.

Accidents in the workplace can often be caused by the carelessness of the employer, though that may not be so in this case. Should there be suspicion that an employer is liable for injuries caused to a worker, an accident attorney can be invaluable in obtaining a financial settlement that will cover
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