Mass Triage
A Personal Story

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Historical Background

- Battle Field Triage
- Hospital Based
  - Life Boat Triage
  - 1970’s
- EMS Triage
My Stories

• 8 patient Hwy US 27 3 car MVA
  – Florida Everglades Winter 1990

• 12 patient Beach accident
  – Fort Lauderdale Beach spring brake 1991

• 38 patient Bus accident
  – Plantation Florida summer 1994
My Stories

• Gas Tanker vs. Amtrak Train
  – March 17, 1993
  – 6 Dead, 15 injured

• Hurricane Wilma
  – October 24, 2005
  – 2 Trailer parks
Hurricane Wilma
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What is Triage?

• Triage” means “to sort out”
  – Looks at medical needs and urgency of each individual patient
  – Sorting is based on limited data
  – Also must consider your available resources
Why are resources important in triage?

A medical *disaster* is commonly defined as an incident in which patient care needs overwhelm a local response system.
Resources Available

P = Patients

Treat all patients
Resources Challenged

Triage and treat all patients
Resources Overwhelmed
Ethics

Daily Emergencies
Do the best for each individual

Disaster Settings
Do the greatest good for the greatest number / Maximize survival
Ethics

• One area of medicine where: 
  – *Utilitarian Rule* applies
    • Treat the greater good of the greater number rather than a particular good of one patient.
    • This applies to the necessity of public welfare in a crisis or disaster.

Why Should Responders Care About Good Triage?

- Provides a way to draw organization out of chaos
  - Helps to get care to those who need it and will benefit from it the most
  - Helps in resource allocation
  - Provides an objective framework for stressful and emotional decisions
Triage is a dynamic process and should be done more than once.
Primary Disaster Triage

• Goal: to sort patients based on probable needs for immediate care
  – Assumptions:
    • Medical needs outstrip immediately available resources
    • Additional resources will become available with time
Primary Disaster Triage

• Triage based on *physiology*
  
  – How well patients are able to utilize their own resources to deal with their own injuries
  
  – Patients that are unable to compensate for their injuries are assigned higher priority.
Primary Disaster Triage

- The most commonly used adult model in the US and Canada is the START model.

- The pediatric primary triage model most commonly used in the US and Canada is Jump START model.

- Other models are:
  - SMART
  - Sacco
  - Sieve
Primary Disaster Triage

• No triage system is 100% accurate
  
  – The key issue is:

  How good is good enough

• Dr. Nathaniel Hupert, assistant professor of public health and medicine at Weill Cornell Medical College and assistant attending physician at New York-Presbyterian Hospital/Weill Cornell Medical Center.
Triage Categories

- **Red:** Life-threatening but treatable injuries requiring rapid medical attention

- **Yellow:** Potentially serious injuries, but are stable enough to wait a short while for medical treatment

- **Green:** Minor injuries that can wait for longer periods of time for treatment

- **Black:** Dead or still with life signs but injuries are incompatible with survival in disaster conditions
Primary Triage

Secondary Triage

Tertiary Triage
Group Exercise
What’s your call?

- You are on the triage team for a school bus verses car accident in the morning.
- There are 18 patients out there, triage and assess into 4 categories
  - Red/Yellow
  - Green/Black
It’s your call – Pt 1

- A young school aged boy is found lying on the roadway 10 ft from the bus.
- Breathing 10/min
- Good distal pulses
- Groans to painful stimuli
It’s your call – Pt 2

- An adult lays at the side of the road, shaking her head. He says he’s too dizzy to walk.
- RR 20
- CR 2 Sec
- Obeys commands
A school aged girl crawls out of the wreckage. She’s able to stand and walk toward you crying.

- Shirt is torn
- No obvious bleeding
It’s your call – Pt 4

- A child lies on top of seats in the bus.
- Apneic
- Remains apneic with modified jaw thrust and ventilation.
- No pulse
It’s your call – Pt 5

- Adult female driver of car, ejected from impact, laying on the ground.
- RR 24
- Cap refill 4 Sec
- Moans with verbal stimulus
It’s your call – Pt 6

• A toddler lies among the wreckage.
• RR 55
• Palpable distal pulses
• Withdraws from painful stimulus
It’s your call – Pt 7

- A woman is carrying a crying infant. She is able to walk, she says her neck hurts
- RR 20
- CR 2 Sec
- Obeys commands
It’s your call – Pt 8

• An infant is carried by the previous victim.
• He’s screaming but the woman quiets him to RR of 34
• Good distal pulses
• Focuses on rescuer, reaches for mom.
• No obvious significant external injuries.
It’s your call – Pt 9

- A young school aged boy props himself up on the road.
- RR 28
- Good distal pulses
- Answers question and commands.
- Has obvious deformity of both lower legs.
It’s your call – Pt 10

- Child found outside the bus, lying on the ground in a heap.
- Apneic
- Faint distal pulse palpable
- Remains apneic with jaw thrust-ventilations restore breathing
It’s your call – Pt 11

- A school aged girl lies among the wreckage.
- RR 40
- Absent distal pulses
- Withdraws from painful stimulus
It’s your call – Pt 12

- A screaming child is found among the victims in the bus.
- RR 38
- Good distal pulses
- Is able to communicate with you.
- Has a partial amputation of the toes on the Right Foot, without active bleeding.
It’s your call – Pt 13

- An adult male driver lies inside the bus.
- Apneic
- Pulseless
- Remains apneic with jaw thrust
It’s your call – Pt 14

• A youngster is up and walking around but is limping
• Good Pulses
• Alert, crying hysterically
It’s your call – Pt 15

• A school aged boy lies close to the bus.
• RR 36
• Absent distal pulses
• Sluggishly looks at you when you talk to him
A young teen girl lies among the wreckage, crying for someone to help her up. A man with her says she needs her wheelchair.

- RR 22
- Palpable distal pulses
- Alert
- Has minor cuts and bruises
It’s your call – Pt 17

- An adult male lies on the ground
- RR 20
- Good distal pulses
- Obeys commands but cries that he can’t move his legs
It’s your call – Pt 18

- An older school aged child is found sitting inside the bus.
- RR 28
- Good distal pulses
- Groggy, confused and slowly follows commands but won’t get up and walk.
MCI Triage: Key Points

• Resources and patient numbers and acuity are limiting factors.

• Must be dynamic, responsive to changes in both resources and patient needs.

• There is currently no civilian MCI triage system that has been validated by outcome data.
MCI Triage: Key Points

• The physiology of adults and children differ; therefore different primary triage systems should be used.

• Primary triage is just the first look at an MCI victim, similar to the primary/initial survey/assessment.