EMS as 4th Responders
Adapting to a New Chain of Survival in MCI

Peter Antevy MD
14:21:38

- The suspect began engaging innocent bystanders.
- The shooter did not enter a single classroom.
- The shooter kills 11 and wounds 13 students on the first floor.

It Begins
Total Time Elapsed: 4:19

• By 14:25:35 all shots that led to harm had been fired.
Time Elapsed:
5:16 – CSPD Arrives

Time Elapsed:
6:38 – Rescue 109
7:33 – Command Estab.
Time Elapsed:
11:04 – CSPD Entry
12:05 – CSPD 1st Contact
Incident
Command
Post

Approximately 530 feet

Time Elapsed:
13:49 – First Patient Removed by Golf Cart
Time Elapsed:
21:58 – First Patient Transported

Time Elapsed:
58:44 – Final Patient Transported
Who Was There First?

- Students: Time elapsed 0:00
- Dispatchers: Time elapsed 1:00
- Police Officers: Time elapsed 12:05
- RTF: Not permitted to enter
- EMS: Time elapsed 21:58
Summary

• Lay Public Can Stop the Bleed
• Call Takers Can Stop the Bleed
• LEOs Can Stop the Bleed
• EMS is the 4th Responder
Never Forget
EMS as 4th Responders
Adapting to a New Chain of Survival in
THE GREEN NEW DEAL
A JOINT EFFORT
Coincidence????
MCI LOST AND FOUND
RE-UNITING PATIENTS AND FAMILIES
AFTER ASSAILANT ATTACKS

Kenneth A Scheppke, MD
State EMS Medical Director
Florida Department of Health
Chief Medical Officer
Palm Beach County Fire Rescue
PATIENT TRACKING SYSTEM FOR MCI AND EVERYDAY USE
TRACKING TECHNOLOGY ALREADY EXISTS EVERYWHERE
**TRACK YOUR PACKAGE TECHNOLOGY**

- Radio frequency ID band
- Useful for day to day ops
- Useful for MCI Family Reunification
- Useful for resource utilization tracking EMS and Hospital
- Useful for outcome data collection across agencies
RADIO FREQUENCY ID CHIP TRACKING
Correcting Catastrophic Curricula: Re-Thinking Disaster Management Training

Erica Carney, MD
KCMO EMS Medical Director/KCFD
UMKC EMS Education System Medical Director
CJCFPD Medical Director
Region A Medical Director
Assistant Professor, TMC-HH EM
Disaster Management Training...
Administrative Side (v) Ground Level
Definitions...

- Mass Gathering
- Mass Casualty Incidents
- Disaster
- Disaster Response Goals
What is a Mass Gathering?
What is a Mass Casualty Incident?
What is a Disaster?
Definition

• Mass Gatherings
  • Most published data > 25,000 persons
  • FEMA uses "special events"
  • A non-routine activity...brings together a large # of people
  • Emphasis on communities' ability to respond
  • Exceptional demands placed on services
  • WHO says “any occasion that attracts sufficient number of people to strain planning and response resources"
  • AKA....A Friday night
Definitions: Disasters

• “Natural or man-made events cause overwhelming loss of life, injury, destruction of property or loss of infrastructure”
What are the Issues?

• Training not required/standardized
• Takes time and money...
• Planning concentrates on normal operations
• Can never be prepared
• Complacency

AIN'T NOBODY GOT TIME FOR THAT
The “Specialists”
A Survey to Determine Knowledge of Mass Casualty Policy at a Level-1 Trauma Center

• Knowledge assessment test using REDCap (https://redcap.umkc.edu/surveys/?s=jjzRkKsH58)
  • Basic knowledge of hospital’s disaster response plan
  • 100% anonymous
  • Count data analyzed using Chi Squared Test of Association, Continuous data assessed using independent t-test and ANOVA

• All ED staff physicians/residents (n=52): 100% response rate
  • Residents scored \(54.8 \pm 13.4\) points
  • Staff physicians scored \(64.5 \pm 13.5\) points
  • Training year not a/w test score (p=.104)

• Only 9.6% of physicians (5/52) felt well prepared for a mass casualty event
How prepared do you feel to respond to a mass casualty incident?

- Not Prepared (8, 15.4%)
- Somewhat Prepared (39, 75.0%)
- Well Prepared (5, 9.6%)
Current Training Requirements?

• **ED physicians:** “receive the most disaster training...”
  • “Small % of medical schools include in core curriculum”
  • “Not standardized”: “Participate in Disaster/MCI drill(s)”
  • “JCAHO requires accredited hospitals implement response plan twice a year”

• **EMS Physicians: ACGME Fellowship Requirements**
  • “Participat(e) in a mass casualty/disaster”
  • “Develop MG medical plan and participate in implementation”

• **EMS Personnel:**
  • CoAEMSP/CAAHEP not yet a separate requirement
  • NR/State statutes, agency requirements...

• **Disaster Medicine Fellowship: Unaccredited by ACGME**
So....Now What?

You don't have to reinvent the wheel.
5 Areas of Risk Management and Planning Mitigation (Mass Gatherings)

- Soomaroo and Murray:
  1) Overcrowding and crowd control
     - Predictable patterns of behavior, bottlenecks
  2) Event access points
     - Ingress/Egress, Security. Self-deployed??
  3) Fire safety measures
  4) Medical preparedness
     - Prepare/preplan for escalating event
     - Legal regulations
  5) Emergency response
     - COMMUNICATIONS
MCIs

SALT Mass Casualty Triage

Step 1 – Sort: Global Sorting
- Walk
- Assess 3rd
- Wave / Purposeful Movement
- Assess 2nd
- Still / Obvious Life Threat
- Assess 1st

Step 2 – Assess: Individual Assessment

LSI:
- Control major hemorrhage
- Open airway (if child consider 2 rescue breaths)
- Chest decompression
- Auto injector antidotes

Breathing:
- Yes
- No
- Dead

Likely to survive given current resources:
- Yes
- Delayed
- Expectant

Minor Injuries only?
- Yes
- Immediate

All
- Yes
- Minimal

No
- Delayed
- Expectant
KEY to Mitigation of MCIs at MGs = Proper Planning and (Training)
Current Admin Side/Goals of Planning...
EMS Physician Curricula: Disaster Preparedness and Management

- Federal framework based on Presidential Policy Directive 8
  - “Defined a National Preparedness Goal: A secure and resilient nation with the capabilities...to prevent, protect against, mitigate, respond to and recover from the threats and hazards”
- National Response Framework (NRF)
  - Describes “ER support functions”

- Aligned with National Incident Management System (NIMS):
  - Defines command and management structures that allow for scalable, multijurisdictional response

- Incident Command Structure

- Non-governmental organizations, state, NDMS (DMAT), regional, local, agency, hospital
Ummmm....

- Should we teach this?
- Should we learn this?
- What should we teach?
Verses What Actually Happens...
Let’s Look at History...

- Hillsborough Stadium
- Hyatt Skywalk collapse
- Orlando, FL
- Las Vegas
- Virginia Tech
- Joplin tornado (graduations)
And Train to Meet These Goals

• ICS Goals:
  • *Life safety, Incident stabilization, Property conservation*

• MCI Medical Management Goals:
  • Rapid **access** to the injured or ill
  • Rapid **triage, stabilization, and transport**
  • On-site care for minor injuries/illnesses
    • Preserve EMS/hospital function

• Did we use SALT/START, etc?
• What are we actually documenting??
Post Event Reviews

• Responders likely suffer effects of stress
• Post-event operational **debriefing**
  • Identify areas for improvement, successes
• AAR (“lessons learned”)
  • Did it include EVERYONE?

• Guide future events and training...
Based Off of History

• Prepare
• Plan
• **Practice/Train**
  • Simulation
  • MGs (football, baseball, hockey)
  • US&R, MoDRS
  • EMS/Disaster Fellowship
Communicate: Hospitals/Communities
Conclusion

- Acknowledge the admin side, and what actually happens
- Standardize definitions of MG, MCI, Disasters
- Acknowledge our deficits
- Acknowledge what's already out there
- Plan, Train, and Prepare for what actually happens...