Lessons Learned from Multiple Patient Incidents

Jeffrey P Salomone, MD, FACS, NREMT-P
Trauma Medical Director
Maricopa Medical Center
Phoenix, AZ
Disclosures

- Member, Disaster Subcommittee, American College of Surgeon Committee on Trauma

- Editor, Prehospital Trauma Life Support 5e, 6e, 7e

- NO financial relationships
Atlanta Olympic Park Bombing
July 27, 1996  1:30 am
Olympic Park Bombing

111 victims + news reporter
- All transported to 11 area hospitals within 32 minutes by 30 EMS units

61 pts to AMC, Emory-Midtown and Piedmont
- AMC: admitted 5
- Piedmont: admitted 4
- 4 operations: 2 wound closures; 2 shrapnel removal
Olympic Park Bombing

- 15 minor victims to 7 other area hospitals

- 35 + reporter to Grady Memorial Hosp
  - Reporter 1st to arrive, CPR in progress
  - 35 with shrapnel injuries
    - 19 treated and release
    - 1 transferred (pt request)
    - 15 admitted - 10 required surgery in 1st 12 hrs
      - Ortho, vascular, thoracotomy, laparotomy, facial expl
Buckhead Financial Shootings
July 29, 1999  2:30 pm
Buckhead Shootings

- 21 shot; 9 dead at scene
- Patient distribution
  - 7 to Level I TC (Grady Memorial)
  - 1 to Level II TC (Atl Med Ctr)
  - 2 to community hospital A
  - 2 to community hospital B
- All survived
Courthouse Shooting
March 11, 2005 (am)

- 2 dead at scene
- 1 deputy shot in abdomen
  - Arrived CPR in progress
- 1 deputy arrived “shot in head”
Bluffton University Baseball Team Bus Crash
March 2, 2007 5:30 am
Bluffton Bus Crash

6 fatalities on scene

Distribution of victims:
  – 3 to community hospital (including Coach)
  – 3 to Level II TC
  – 20 to Level I TC
Bluffton Bus Crash

- 2 critical - both with ruptured spleen / TBI
  - 1 died at 7 days (sepsis / TBI)
  - 1 survived to be transferred to rehab
- 1 Grade IV hepatic injury
- 17 “walking wounded”
  - One with crush injury to leg
Botanical Garden Bridge Collapse
December 19, 2008
Botanical Garden Bridge Collapse

- 1 fatality at scene
- 18 transport to Level I TC
  - 3 underwent spinal fixation on day of injury
  - 3 others admitted
  - Injuries primarily orthopedic
- All recovered
  - All spine injuries walked out of rehab
Lessons Learned
Pre-Planning
Pre-planning

- Include Trauma Centers in planning for large events
Notification of physicians

“Fan out” list
Disaster “packs”

- Names / Medical record number
- Stickers
- Patient bracelet
Disaster Drills

- Physician involvement
- Moulaged patients
- Multiple shifts
- Staff turnover
- After action discussions
Communications
Communications

Always sub-optimal with EMS
- “Surprises” / Erroneous information
- Difficult to get number of victims
Communications

Hospital systems can become overwhelmed

- Phone banks during Olympics
Triage
Triage

- Transport of deceased
Triage

Need for re-triage
- Lots of overtriage

Mis-triage
- Trauma centers under-utilized
  - Serious injuries to non TCs
  - Physician at scene
Triage

- Initial information sometimes inaccurate
  - Deputy “shot in head”
Triage

- Self triage
  - Closest hospital often overwhelmed with patients, including walking wounded, even if NOT a trauma center
Triage

Be prepared for decontamination
  – Gasoline / diesel
  – Cement
Initial Emergency Care

Stage medical professions

- Assign patients if possible
  - More physicians than patients
Initial Emergency Care

- Team assessments of less seriously injured
  - Checklists on bed
Initial Emergency Care

- Manual lists / stickers
  - Checklist of needed studies
  - Add names when known
  - Location
Misidentification

- Names exchanged on two critical patients
  - Double check
Use of Institutional Space
Institutional Space

- Radiology holding
  - Supplies brought to patient
Institutional Space

Care initiation unit
- Kept patients together
- Allowed for tertiary surveys
- Place for parents to congregate
Multispecialty Response
Multispecialty Response

Never know who’ll you’ll need

If in the way, stage them
  – Everyone wants to help
Timing of Incident
Timing / Serendipity

- Other events going on
- Shift change
Leadership Meetings
Meetings

- Frequent meetings - updates
  - Command post

- Hospital leadership involved
  - Food for teams / patients
  - Chief Nursing officer
Media
Media

- Be accurate
  - Numbers of patients
  - Identity

- “Interesting” questions

- Sneaky
Disposition

Where do patient’s go when released

Social Services / psychological support
Oddities

- Patient with prescription from another hospital and no money

- “Walking wounded” patient arrived with a video camera. . .
Final Thoughts
Final Thoughts

- Relationship between Emergency Management and Trauma Program

- DMEP
Opportunity to Shine
Tim Berta
Thanks!