Integrated Response to Mass Shootings

Black Canyon Conference Center
Phoenix, AZ
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The Hartford Consensus: Triage & Evidence-Based Treatment
Integrated Response to a Mass Shooting

The Hartford Consensus – Triage and Evidence-Based Treatment

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ARIZONA DEPARTMENT OF HEALTH SERVICES
Health and Wellness for all Arizonans
Credentials

• Board certified in general surgery & surgical critical care
• Trauma & critical care fellowship trained
• Faculty at University of Pennsylvania - 11 years
• Trauma surgeon for Philadelphia FBI SWAT Team - 9 years
• Level II Trauma Program Director - 3 years
• Deployed to Fallujah, Iraq with Marines Aug 07-Mar 08
• Banner-UMC Phoenix Level I Trauma Director since 2010
Objectives

• Describe the roles of the lay public, law enforcement, and fire / EMS in the management of life-threatening injuries during a mass shooting event.

• Discuss the continuum of care from initial responders to definitive care using the T-H-RE-A-T acronym.
Number of People Shot and Killed per Year
2000-2012

Active Shooter Events from 2000 to 2012
By J. Pete Blair, Ph.D., M. Hunter Martaindale, M.S., and Terry Nichols, M.S.
Mass Shooting Event

How we did it

Standard Approach

– Everyone (Police Fire EMS) responds
– Critical mass of patrol officers
  • Surround & contain
– SWAT activated and responds
– Fire / EMS stage and wait
Mass Shooting Event

• **Standard Approach**
  – Law enforcement goals take priority
    • Does not optimize victim survival
  – Fire / EMS follow on once safety assured
    • Emergency medical treatment
    • Patient movement
Mass Shooting Event

• Question:

So how do we Maximize Survivability and Minimize Death?
Improving Survival from Active Shooter Events: The Hartford Consensus

- Joint Committee to Create a National Policy to Enhance Survivability From Mass Casualty Shooting Events
- Met first in June 2013

Dr. Lenworth Jacobs, Jr, ACS Regent and Hartford, CT Trauma Surgeon
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- American College of Surgeons
- ACS Committee on Trauma
- PHTLS
- FBI
- Major Cities Police Chiefs Association
- International Association of Fire Chiefs
- Committee on Tactical Combat Casualty Care
- Department of Defense
- Department of Homeland Security
- FEMA
- Other Stakeholders
Participants unanimously endorsed the principles
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- A **reality** in modern American life.
- Clear that longstanding practices of law enforcement and fire / EMS **not optimally aligned** to maximize survival.
- Using existing tactics and evolving trauma concepts, the means of improving survival already exist, but have been underutilized.
- While efforts to isolate or stop the active shooter remain paramount, **early hemorrhage control is critical** to improving survival.
How People Die in Ground Combat

Military Medical Lessons Learned

- 31% KIA CNS Injury
- 25% KIA Surg Uncorrect Torso
- 12% DOW (complications)
- 10% KIA Blast
- 7% KIA Tension Ptx
- 1% KIA Airway Obstruction
- 9% KIA Exsang from Extremity Wounds

COL Ron Bellamy (Vietnam Data)
Preventable Combat Deaths
Military Medical Lessons Learned

- 60% Extremity Hemorrhage
- 33% Tension Pneumothorax
- 7% Airway Obstruction

COL Ron Bellamy (Vietnam Data)
Tactical Combat Casualty Care

• 90% of all battlefield casualties die before they reach definitive care

• Point of wounding care is responsibility of individual soldier, battle buddy, Combat Lifesaver, and Corpsman/Medic
Improved First Aid Kit

Israeli Pressure Dressing (IPD)
aka: Emergency Bandage

4” Kerlix

Combat Application Tourniquet (CAT)

Nasopharyngeal Airway (NPA)

2” Tape

H-ig Needle

Exam Gloves (4)

MOLLE Type Pouch

Weight: 1.08 lbs   Cube: 128 ci
Tourniquets

- Windlass Strap
- Self-Adhering Band
- Windlass Rod
- Windlass Clip
THE TOURNIQUET

Each Stretcher bearer, each officer, each man if possible, should know how to fix a garrot. The use of the garrot has been much criticized, but if it causes the loss of a limb it may save a life. Many men die unnecessarily from hemorrhage on the battlefield and at the ambulance.

Vincent
April 1918
Hemostatic Dressings

- Combat Gauze
- HemCon
- Celox

Do you carry this?
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- Hartford Consensus recommends an integrated active shooter response include critical actions contained in the acronym THREAT:
  - THREAT suppression
  - HEMORRHAGE control
  - RAPID EXTRICATION to safety
  - ASSESSMENT by medical providers
  - TRANSPORT to definitive care
Life-threatening bleeding from extremity wounds is best controlled initially through use of tourniquets.

Internal bleeding resulting from penetrating wounds to the chest and trunk is best addressed through expeditious transport to a hospital.
Optimal response includes identifying and teaching skill sets appropriate to each level of responder

- Law enforcement
- Fire / EMS
- Lay public

THREAT incorporates the proven concepts of self-care and buddy-care.
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- **Law Enforcement**
  - Play a **key role as the bridge** between the law enforcement phase and the integrated rescue response
  - Medical **training for external hemorrhage control techniques** essential for all LE officers
  - Interval between wounding and hemorrhage control can be **minimized** by trained LE officers

*External Hemorrhage Control is a core law enforcement skill*
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- Law Enforcement
  - Identify appropriate external hemorrhage control training
  - Ensure appropriate equipment available to every officer
  - Ensure early triage of victims with possible internal bleeding for immediate evacuation
  - Train all officers to assist fire / EMS with evacuation of injured
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• Fire/EMS
  – No longer acceptable to stage and wait for injured to be brought out
  – Training must include hemorrhage control techniques
  – Training must include assessment, triage and transport of victims with possible internal bleeding
  – Incorporate Tactical Emergency Casualty Care (TECC) concepts

More integrated and traditional role limitations revised
Is There a Role for the Lay Public?
Not Just Mass Shooting Events

Photo: Charles Krupa
© EPA/AP
Not Just Mass Shooting Events

Bystanders?
Not Just Mass Shooting Events

Bystanders?
No!
Immediate Responders!
• Public
  – Everyone can save a life!
  – Uninjured or minimally injured can act as rescuers
  – Education programs for lay public
  – Preposition necessary equipment
• **Definitive Trauma Care**
  
  – Design, implement and practice plans to handle surge in patient care demands
  
  – Existing trauma systems should be used to optimize seamless care

**Improving Survival from Active Shooter Events: The Hartford Consensus**
Integrated response
Care of the victims is a shared responsibility between law enforcement and fire / EMS. Response is a continuum that requires coordination between law enforcement and the medical/evacuation providers. Such coordination includes:

- Shared definitions of terms
- Jointly developed local protocols for response
- Inclusion of active shooter events in exercises
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• Education
  • Education of ALL GROUPS is required, tailored to the level of the responder
  • Everyone should be taught hemorrhage control
  • Professional first responders also taught airway management
  • Education for the patient care process should focus on THREAT

• Courses
  – Bleeding Control for the Injured
  – TECC, TCCC
The Hartford Consensus: Summary

- Maximize survival and minimize death
- Response priorities: T-H-RE-A-T
- No one should die from uncontrolled bleeding
- Everyone can save a life!
- Empower the public – Vital role
- Seamless integration of hemorrhage control interventions
- Mutual collaboration and reinforcing responses amongst law enforcement and fire / EMS
- Develop local protocols
- Plan and train together
QUESTIONS?
Thank You