Active Shooter and Intentional Mass-Casualty Events:

The Hartford Consensus II

Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events

Lenworth M. Jacobs, MD, MPH, FACS,
Vice-president, academic affairs, Hartford Hospital; ACS Board of Regents

Michael Rotondo, MD, FACS,
Chair, ACS Committee on Trauma

Norman McSwain, MD, FACS,
Medical Director, PreHospital Trauma Life Support

David S. Wade, MD, FACS,
Chief Medical Officer, Federal Bureau of Investigation (FBI)

William P. Fabbri, MD, FACEP,
Medical Director FBI Emergency Medical Support Program

Alexander Eastman, MD, MPH, FACS,
Major Cities Chiefs Association

Frank K. Butler, MD,
Chairman, Committee on Tactical Combat Casualty Care (Department of Defense, Joint Trauma System)

John Sinclair,
Past-director, International Association of Fire Chiefs

Karyl Burns, RN, PhD,
Research scientist, Hartford Hospital

Kathryn Brinsfield, MD,
National Security Staff, Executive Office of the President

Richard Carmona, MD, FACS,
17th U.S. Surgeon General

Richard Serino,
Deputy Administrator, Federal Emergency Management Agency

Alasdair Conn, MD, FACS,
Chief of emergency services, Massachusetts General Hospital

Richard Kamin, MD, FACEP
EMS Program Director, state of Connecticut, American College of Emergency Physicians Emergency Casualty Care Committee

Editor's note: The Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events issued the following call to action on July 11, 2013. It is the second report from the committee, which the American College of Surgeons (ACS) played a leadership role in forming. The committee has representation from the ACS Board of Regents, the ACS Committee on Trauma, the PreHospital Trauma Life Support program, the Federal Bureau of Investigation, the Major Cities Chiefs Association, the emergency medical services (EMS) section of International Association of Fire Chiefs, and the Committee on Tactical Combat Casualty Care. The group's first report was published in the June issue of the *Bulletin*.* Both consensus documents are published with the permission of the Chair of the Hartford Consensus, ACS Regent Lenworth M. Jacobs, MD, MPH, FACS.

*Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events. Improving Survival from Active Shooter Events: The Hartford Consensus. *Bull Am Coll Surg.* 2013;98(6):14-16.

Preventable death after an active shooter or an intentional mass-casualty event should be eliminated through the use of a seamless, integrated response system.

Concept to action

On April 2, representatives from a select group of public safety organizations including law enforcement, fire, pre-hospital care, trauma care, and the military convened in Hartford, CT, to develop consensus regarding strategies to increase survivability in mass-casualty shootings. A concept document resulted and became known as the Hartford Consensus. It includes an acronym to describe the needed response to active shooter and intentional mass-casualty events. The acronym is THREAT:

- **T**hreat suppression
- **H**emorrhage control
- **R**apid **E**xtrication to safety
- **A**ssessment by medical providers
- **T**ransport to definitive care

Within the framework of THREAT, there exists the opportunity to improve survival outcomes for the victims of active shooter and intentional mass-casualty events through mutual collaboration and reinforcing responses. The Hartford Consensus stipulates that medical training for external hemorrhage control techniques is essential for all law enforcement officers. They should play a key role as the bridge between the law enforcement phase of the operation and the integrated rescue response. The interval from wounding to effective hemorrhage control can be minimized by law enforcement officers trained in hemorrhage control. This principle is central to the findings of the first Hartford Consensus. The purpose of the Hartford Consensus Conference II, which took place July 11 in Hartford, was to develop strategies for focused actions to achieve the objectives of the first Hartford Consensus.

Fundamental concepts

To maximize survival from an active shooter or an intentional mass-casualty event there must be a continuum of care from the initial response to definitive care. The essence of this continuum involves the seamless integration of hemorrhage control interventions. This process starts with the actions of the uninjured public or minimally injured victims and extends to the first responding law enforcement officers, then to EMS/fire/rescue personnel, and ultimately to definitive trauma care. These concepts must be scalable to facilitate implementation in communities of all sizes. The law enforcement response has evolved from the original concepts of "surround and contain" to a more modern and aggressive response. EMS/fire/rescue must be involved earlier in the care of these victims. They should have direct contact with the law enforcement personnel on the scene.

Call to action

No one should die from uncontrolled bleeding. Preventable death after an active shooter or an intentional mass-casualty event should be eliminated through the use of a seamless, integrated response system. Each group in the following categories should perform the actions necessary to accomplish this goal:

Public: Uninjured or minimally injured victims can act as rescuers. Everyone can save a life.

- Recognize that the initial response to an intentional mass-casualty event will be from uninjured bystanders and minimally injured victims
- Design education programs and implement training for a public response to an active shooter or intentional mass-casualty event
- Pre-position necessary equipment in appropriate locations
- Recognize that in an active shooter event the education message should include the concept of "Run, Hide, Fight"

Law enforcement: External hemorrhage control is a core law enforcement skill.

- Identify appropriate external hemorrhage control training for law enforcement officers

Hartford Consensus II attendees, from left: Drs. Brinsfield, Fabbri, Wade, Jacobs, Serino, Carmona, Conn, Kamin, Eastman, Burns, McSwain, and Rotondo. Not pictured (joined by phone): Dr. Butler and Mr. Sinclair.

- Ensure appropriate equipment, such as tourniquets and hemostatic dressings, is available to every law enforcement officer

- Ensure assessment and triage of victims with possible internal hemorrhage for immediate evacuation to a dedicated trauma hospital

- Train all law enforcement officers to assist EMS/fire/rescue in the evacuation of the injured

EMS/fire/rescue: The response must be more fully integrated and traditional role limitations revised.

- Train to increase awareness and operational knowledge about the initial response to an active shooter or intentional mass-casualty event
  - It is no longer acceptable to stage and wait for casualties to be brought out to the perimeter.
  - Training must include hemorrhage control techniques, including the use of tourniquets, pressure dressings, and hemostatic agents.
  - Training must include assessment, triage, and transport of victims with potentially lethal internal hemorrhage and torso trauma to definitive trauma care.

- Incorporate Tactical Combat Casualty Care and Tactical Emergency Casualty Care concepts into EMS/fire/rescue training

- Modify the response doctrine to improve the interface between EMS/fire/rescue and law enforcement in order to optimize patient care

- Establish a common language for responders, permitting each community to improve coordination, develop concurrent response, and establish mutually acceptable levels of operational risk between all public safety professionals to enhance the defense, rescue, treatment, extrication, and definitive care of survivors

Definitive trauma care: Existing trauma systems should be used to optimize seamless care.

- Provide trauma care to victims of an active shooter or an intentional mass-casualty event based on available resources and the establishment of mitigation strategies that acknowledge community limitations

- Design, implement, and practice plans to handle a surge in patient care demand from an active shooter or an intentional mass-casualty event

Education

To achieve the goals of this call for action, education of all groups is required. The core Hartford Consensus concepts should not be limited to traditional public safety responders. Everyone can and should be an initial responder. Education should be tailored to the level of the responder. Everyone should be taught hemorrhage control. Professional first responders should also be taught airway management. Education for the patient care process should focus on THREAT and include:

- Rapid access to hemorrhage control
  - External hemorrhage control
    - Direct pressure
    - Tourniquet application
    - Hemostatic agents

To achieve the goals of this call for action, education of all groups is required.

  - Internal hemorrhage control
    - Rapid transportation and access to a trauma center
    - Prompt access to the operating room
    - Incorporation of new concepts in hemostatic resuscitation and damage control surgery that have been used successfully in recent military conflicts

Evaluation

With this significant change in approach to an active shooter or an intentional mass-casualty event, a carefully conceived evaluative process to determine the efficacy of THREAT is warranted. Scientific evaluation of the implementation of Hartford Consensus concepts must ensure that future efforts are focused on ideas that are effective.

The evaluation process should include measurement of the following:

- Accessibility of field hemorrhage control equipment for law enforcement, EMS/fire/rescue, and the general public
- Documentation of the use of hemorrhage control equipment by law enforcement, EMS/fire/rescue, and the general public
- Submission of relevant data to a national registry
- Analysis of the quantitative and qualitative aspects of the data submission process to a national registry
- Use of THREAT training guidelines by all relevant providers
- Integration of operational doctrine through policy development and enabling legislation across the country relevant to law enforcement, EMS/fire/rescue
- Compliance and efficacy of the after action report process
- Effectiveness of THREAT education
  - Effectiveness of THREAT implementation
  - Effectiveness of threat suppression
  - Timelines and appropriateness of initial hemorrhage control
  - Timeliness and effectiveness of rapid extrication
  - Transportation to and interface with definitive care facilities
  - Readiness of definitive care facilities for control of internal hemorrhage
- Reduction of preventable death
- Local, regional, and national performance to identify opportunities for improvement and gaps in funding for research and development

Coalition of stakeholders

To achieve the goals of this call to action, a coalition of stakeholders must be established. To do so, the following must be accomplished:

- Identify core national leaders
- Establish a communication plan for the widespread dissemination of THREAT

The Hartford Consensus II has generated a call to action in order to enhance survival from active shooter or intentional mass-casualty events.

HARTFORD CONSENSUS POTENTIAL PARTNER ORGANIZATIONS FOR MASS-CASUALTY EVENTS

American College of Surgeons

American College of Emergency Physicians

American Trauma Society

American Red Cross

U.S. Department of Defense Joint Trauma System

U.S. Department of Defense Committee on Tactical Combat Casualty Care

Committee for Tactical Emergency Combat Casualty Care

Federal Bureau of Investigation

U.S. Fire Administration

National Highway Traffic Safety Administration Office of Emergency Medical Services

U. S. Department of Homeland Security Office of Health Affairs

U.S. Department of Homeland Security Federal Emergency Management Agency

International Association of Fire Chiefs

International Association of Firefighters

International Association of Chiefs of Police

International Association of EMS Chiefs

National Volunteer Fire Council

National Emergency Medical Service Advisory Committee

National Association of State Emergency Medical Services Officials

National Association of Emergency Medical Services Physicians

National Association of Emergency Medical Technicians

National Association of EMS Educators

National Tactical Officers Association

National Sheriffs' Association

American Association for the Surgery of Trauma

Eastern Association for the Surgery of Trauma

PreHospital Trauma Life Support

Emergency Nurses Association

Society of Trauma Nurses

University law enforcement and health care organizations

Hospital accreditation organizations

Automobile manufacturers

Faith-based organizations

- Identify legislative priorities
- Engage in the legislative process at the national and state levels
- Engage in funding initiatives
- Implement pilot projects to demonstrate the effectiveness of the action principles of the Hartford Consensus
- Partner with relevant groups including national, federal, state, law enforcement, fire, EMS, medical, nursing, military, professional, and voluntary organizations (see sidebar, this page)

Conclusion

The Hartford Consensus II has generated a call to action in order to enhance survival from active shooter or intentional mass-casualty events. The call to action engages the public, law enforcement, EMS/fire/rescue, and definitive care facilities. It embodies the principles of THREAT and calls for modification of the initial responses to these events. A broad educational strategy and a robust evaluation of the implementation of THREAT are needed to quantify the benefits of this approach to the management of active shooter and mass-casualty events. ◆