

Implementation of the Hartford Consensus initiative to increase survival from active shooter and intentional mass casualty events and to enhance the resilience of citizens



by Lenworth M. Jacobs, Jr., MD, MPH, FACS
 Chairman, Hartford Consensus
 Vice-President, Academic Affairs, Hartford Hospital
 Member, Board of Regents, American College of Surgeons

The Joint Committee to Create a National Policy to Enhance Survivability from Active Shooter and Intentional Mass Casualty Events was founded by the American College of Surgeons (ACS) in collaboration with representatives from the federal government, the National Security Council, the U.S. military, the Federal Bureau of Investigation, and police, fire, and emergency medical organizations. The committee recognized that a strategic response to active shooter and intentional mass casualty events requires a consensus of multiple agencies and organizations, all of which have an interest in enhanced survivability but have differing philosophies and jurisdictions. The call to action declared that no one should die of uncontrolled bleeding. Preventable deaths after an active shooter or intentional mass casualty event should be eliminated through the use of a seamless integrated response system.

To develop a response system that can be effective 24 hours a day, seven days a week in any locale—whether it be a city, a suburban setting, or a rural environment—it is critical to identify the organizations and governance structures responsible for ensuring that a plan can be implemented immediately. It is then essential to identify all groups that would be available to respond to an intentional mass casualty emergency. The critical actions to enhance survival, the training necessary to achieve competence, and the necessary equipment and its immediate availability also need to be identified and be ready to be implemented.

It is essential to establish a partnership with government agencies that are responsible for making intentional mass casualty events of sufficient importance that a national initiative is implemented to mitigate injury and death. The Executive Branch of government, through a Presidential Directive, established the importance of a national response. The directive outlines areas of responsibility and appropriate time lines to implement a national solution.

The federal government, through the Department of Homeland Security, Federal Emergency Management Agency, Federal Bureau of Investigation, Department of Defense, and National Security Council, has identified the elements of the problem and appropriate solutions. It has communicated this information to more than 50 organizations in the medical, law enforcement, public health, and emergency medical prehospital services arenas. The government also has included major private sector organizations in the dissemination of this information. At the state level, the departments and commissioners of public health and public safety have received guidance from Federal Emergency Management Agency as to an appropriate response, which can be tailored to local jurisdictional idiosyncrasies. The statewide directives have been transmitted to local law enforcement agencies, municipalities, hospitals, and private companies.

State of Connecticut's implementation of the Hartford Consensus initiatives

The State of Connecticut Department of Public Health has a long-standing Trauma Committee that is responsible for developing statewide plans for implementation by the Commissioner of Public Health. The Trauma Committee has representation from the hospital community, which includes all levels of trauma centers and other hospitals that receive trauma patients. Committee members include surgeons, emergency physicians, nurses, and prehospital personnel such as flight nurses, paramedics, and emergency medical technicians. The committee also has active representation from the government of the State of Connecticut through the Office of Emergency Medical Services of the Department of Public Health. Frequently there is representation from the commission of public safety, fire administration, state police, and the Connecticut Hospital Association. The Department of Public Health and the Department

To develop a response system that can be effective 24 hours a day, seven days a week in any locale—whether it be a city, a suburban setting, or a rural environment—it is critical to identify the organizations and governance structures responsible for ensuring that a plan can be implemented immediately.

of Homeland Security of the State of Connecticut have sent senior representation to the Connecticut Trauma Committee. These representatives are responsible for the training of law enforcement officers and fire and emergency medical personnel. The importance of cross-agency involvement and collaboration cannot be overemphasized.

The Department of Public Health regulates and designates trauma centers and has a statewide trauma plan that directs the ACS to inspect and verify trauma centers on a three-year basis. This structure allows the Commissioner of Public Health to be aware of the state of readiness, education, and trauma health care in the state. It also facilitates making recommendations to the legislature for modifications in the trauma regulations. This flexibility is critical in a response to episodic activities such as terrorist events, which can generate widespread casualties, fear, confusion, and disruption within the state.

An intentional shooting in a school involving the death of 26 victims, 20 of whom were children, became a sentinel event for the trauma committee. This situation provided the impetus to educate all government and private sectors that would be involved in the management of a major traumatic event of the magnitude of the Sandy Hook Elementary School shooting. The mass casualty explosive event at the Boston Marathon further galvanized the Trauma Committee to develop and implement action plans for a fully functional response that would increase survival in the event of a similar activity occurring in the State of Connecticut.

Implementation plan

The Call to Action outlined in the Hartford Consensus I, II, and III documents was endorsed by the Trauma Committee. The implementation plan was embraced by the Department of Public Health and was included in the guidance given to the state through the Office

of Emergency Medical Services. The program director of the office took an active position in integrating the training of emergency medical technicians, paramedics, flight nurses, law enforcement officers, ambulance personnel, and trauma centers within the state. Similarly, the Department of Homeland Security involved the state police and fire services in training law enforcement personnel and making sure they have appropriate equipment and devices to immediately control hemorrhage at the scene.

The Connecticut State Police has issued individual first-aid kits to all sworn members of the force. It also has initiated teaching the Tactical Combat Casualty Care course to all members, and this course is now part of the new recruit educational curriculum. The Connecticut State Police Training Academy reports that it has satisfied the following requirements outlined in The Hartford Consensus:

- External hemorrhage control is a core law enforcement skill.
- All law enforcement officers are trained in external hemorrhage control.
- Appropriate equipment, such as tourniquets and hemostatic dressings, is available to every officer.
- All officers appreciate the need for rapid assessment and triage of victims with possible internal hemorrhage for immediate evacuation to a dedicated trauma hospital.
- All officers are trained to assist emergency medical services/fire/rescue in evacuation of the injured.

The Police Academy Administrator has included a four-hour block of instruction in the First Responders Course. The academy is using this time in the

This flexibility is critical in a response to episodic activities such as terrorist events, which can generate widespread casualties, fear, confusion, and disruption within the state.

curriculum and practicum for combat casualty survival training and skills. The education includes tourniquet training and the correct placement and use of hemostatic dressings.

The Connecticut Fire Academy also has implemented emergency medical services programs. These programs include the Train the Trainer Program. The academy has purchased a number of hemorrhage control training kits, and the training simulates the management of wounds and severe hemorrhage. The academy also has implemented bleeding control and trauma bags, which are used at the Connecticut Fire Academy and other locations. Similar training programs also have been incorporated into emergency medical responder and emergency medical technician training refresher programs.

Hospital response

Hartford Hospital, one of two Level I trauma centers in the state, took a leadership role in implementing the call to action of the Hartford Consensus. It became clear that the immediate response, prehospital management, communication, and transportation of victims had to be integrally linked to the in-hospital response of the trauma center. To ensure an effective response 24 hours a day, seven days a week, specific training had to be implemented throughout the entire hospital.

In the spring of 2014, various groups throughout Hartford Hospital were offered tourniquet-application training on a voluntary basis. These groups included the board of directors; executive management team members consisting of vice-president-level staff; the LIFESTAR air medical crew; and management forum representatives consisting of managers, physicians, registered nurses, public safety officers, and other available staff. The public safety officers were especially targeted for training to comply with the Hartford Consensus recommendation that law enforcement accept bleeding control as one of its core responsibilities. The strategy of engaging the clinical and administrative leadership of the hospital in understanding the real risks and the need to be prepared in the event of a mass casualty event was critical

to gaining the endorsement for widespread training of all levels of hospital personnel.

The training consisted of either a live demonstration and return demonstration by the learners or a video demonstration and return demonstration. Initially, the live demonstrations were used for small groups of approximately 15 to 20 individuals. A three-minute video was created to teach larger groups and on a more frequent basis. Both the live and video formats involved a presentation by a trauma surgeon who explained and demonstrated the correct steps to apply a combat-style tourniquet after first advising that personal safety should always be a priority. The demonstration, time for questions and answers, and return demonstration—the entire training—took approximately 15 minutes. The Women's Auxiliary Organization of the hospital was instrumental in providing voluntary funding for the tourniquets, hemostatic dressings, and gloves. They also funded the purchase of bleeding control bags, which were strategically placed within the hospital next to automatic external defibrillators.

Simulation education

Hartford Hospital is the major teaching hospital for the University of Connecticut. It has implemented a large, modern simulation center designed to develop hands-on competence in skills that include appropriate methods to control hemorrhage. Mannequins and simulated environments are used to replicate mass casualty disasters in the field and allow students to practice immediate management of hemorrhage. The simulation center also represents the emergency department and teaches the assessment and treatment of hemorrhage, including decision making for surgical or radiologic intervention.

The simulation center allows trainees who have demonstrated competence in the individual skills to practice their specific roles in real time as part of a team. This training allows prehospital personnel such as emergency medical technicians and paramedics to fully integrate with immediate responders at the scene, as well as with law enforcement officers and fire personnel. These exercises include comprehensive assessment

The simulation center allows trainees who have demonstrated competence in the individual skills to practice their specific roles in real time as part of a team.

and triage of victims, selection of appropriate ground and air transportation, and communications between prehospital medical personnel and personnel in the resuscitation suite of the trauma center. Full integration, including the handover from the prehospital arena to the emergency department and then to surgical intervention in the trauma center, is practiced. Members of the military, including the Navy and The National Guard also train in the simulation center.

Involvement of the nonmedical corporate and university sectors

The education and training to competence in primary hand pressure and tourniquet application for hemorrhage control of the board of trustees of Hartford Hospital had an unexpected benefit. Hartford Hospital is one of the major teaching hospitals in the city of Hartford. The State of Connecticut is home to many Fortune 500 companies and numerous universities. In the northeast there has been a long tradition of corporate leaders being involved in the governance of hospitals and health care enterprises, which is also true in Hartford. A number of the members of the board of directors of the hospital either direct large companies or serve on the boards of universities and for-profit enterprises. These individuals recognize the value of the tenets of the Hartford Consensus in preparing the state and their companies for potential intentional mass casualty events.

The president of The Hartford, a multibillion-dollar insurance company, chairs the board of directors of Hartford Hospital and was a member of the Hartford Consensus III. This participation allowed the thought processes and philosophies of corporate America to be heard and discussed by members of the Hartford Consensus. Similarly, another board member of Hartford Hospital, who was on the board of directors at the University of Hartford, facilitated the education and involvement of that university in preparedness. All these leaders recognized that in the modern era, universities, public places, and major corporate entities are all at risk for either active shooter or intentional mass casualty events. The seriousness with which these groups of leaders identified and prepared for enhancing

resiliency was gratifying. The corporate leadership will facilitate meetings with the chamber of commerce of the metropolitan area, which will allow the leaders of numerous Fortune 500 corporations to be involved in disseminating these lessons and enhancing the resilience of the public.

Placement and distribution of bleeding control equipment to maximize hemorrhage control

The educational process has enhanced the resiliency of hospital-based employees and their families. However, being knowledgeable about hemorrhage control without having the appropriate equipment to stop bleeding would not be appropriate. This philosophy has led to the placement of bleeding control bags with sufficient tourniquets, hemostatic dressings, and gloves to control hemorrhage from numerous extremity wounds. These bleeding control bags are placed beside automatic external defibrillators in public places in the lobbies, educational resource centers, and dining rooms of Hartford Hospital. Personal kits that contain tourniquets, hemostatic dressings, and gloves have been widely distributed to numerous personnel within the hospital system. There is no mandate to have this equipment immediately available, but the majority of the personnel have the devices on their person, in their personal carry bags, in their cars, or in their homes. Other hospitals in the region also have been educated in this process. Bridgeport Hospital, located in the largest city in Connecticut, has implemented bleeding control bags in its facility.

Each town, city, state, and municipality will have different needs and will implement the policies of the Hartford Consensus in a manner devised to enhance the resilience of the area and to increase survival from intentional mass casualty and active shooter events. It is hoped that the framework that has been implemented at Hartford Hospital, in the city of Hartford, in the metropolitan region of Greater Hartford, and throughout the State of Connecticut will serve as an exemplar for other locations throughout the U.S. ♦