

**JOINT COMMITTEE
TO CREATE A NATIONAL POLICY
TO ENHANCE SURVIVABILITY FROM INTENTIONAL
MASS CASUALTY AND ACTIVE SHOOTER EVENTS
HARTFORD CONSENSUS III**

Implementation of Bleeding Control

Our nation's threat from intentional mass casualty events remains elevated. Enhancing resilience of the public from all-hazards has been identified as a priority for domestic preparedness. Recent events have shown that, despite the lessons learned from more than 6,800 U.S. combat fatalities over the last 13 years, opportunities exist to improve the control of external hemorrhage in the civilian sector. These opportunities exist in the form of interventions that should be performed by bystanders known as immediate responders and professional first responders who are law enforcement officers, EMT's, paramedics and firefighters (EMS/fire/rescue) at the scene of the incident.

The Joint Committee to Create a National Policy to Enhance Survivability from Intentional Mass Casualty and Active Shooter Events was founded by the American College of Surgeons. Two meetings of the Committee were held in 2013. This Committee made specific recommendations and issued a call to action. The deliberations of the Committee have become known as the Hartford Consensus. A third meeting was held on April 14, 2015. This Hartford Consensus III meeting focused on implementation strategies for effective hemorrhage control.

The overarching principle of the Hartford Consensus is that in active shooter and intentional mass casualty events, no one should die from uncontrolled bleeding. An acronym to summarize the necessary response is

THREAT:

- Threat suppression
- Hemorrhage control
- Rapid Extrication to safety
- Assessment by medical providers and
- Transport to definitive care

The Hartford Consensus calls for a seamless, integrated response system that includes the public, law enforcement, EMS/fire/rescue and definitive care to employ the **THREAT** actions in a comprehensive and expeditious manner.

There are different levels of responders:

- Immediate Responders – those who are present at the scene and have personal equipment(including one’s hand) that is immediately available
- Professional First Responders – prehospital responders at the scene who have the appropriate equipment and training
- Trauma professionals – those professionals in hospitals with all the necessary equipment to provide definitive care

Immediate Responders

An emphasis of Hartford Consensus III is on empowering the public to provide care. During intentional mass casualty events, those present at the point of wounding have proven invaluable at responding to the initial hemorrhage control needs of the wounded. While traditionally described as “bystanders”, these immediate responders need not be passive observers and can provide effective lifesaving first-line treatment.

Immediate responders contribute to survival by performing critical external hemorrhage control immediately at the point of wounding and prior to the arrival of traditional first responders. Immediate responders contribute to what remains the critical step in eliminating preventable prehospital death: the control of external hemorrhage. The Hartford Consensus III recognizes the vital role that these immediate responders play in responding to mass casualty events. They make major contributions to improving survival from these incidents. However, the Hartford Consensus III does not advocate that members of the public enter areas of direct threat or imminent danger. Good Samaritan laws have been effective in empowering the public to become involved in the immediate response to a victim of cardiac arrest and choking by the initiation of cardiopulmonary resuscitation and the Heimlich maneuver respectively. This legal protection should be extended to include bleeding control.

Professional First Responders

Professional first responders include law enforcement and EMS/fire/rescue. As indicated by **THREAT**, law enforcement must suppress the source of wounding if the shooter is still active and then, because they are usually the initial first responders on the scene, must act to control external hemorrhage. Victims with life-threatening external bleeding must be treated immediately - at the point of wounding. All responders should be educated and have the necessary equipment to provide effective external hemorrhage control. Continued emphasis must be on the integration of the immediate responders, law enforcement, and EMS/fire/rescue to optimize rapid patient assessment, treatment, and transport to definitive care at the nearest appropriate hospital.

Building Educational Capabilities for All Responders

It is recognized that education in hemorrhage control can take many forms and should be offered using various modalities. Established education programs can be modified to include effective external hemorrhage control techniques for individuals, neighborhoods, communities, and groups of professional responders. The Bleeding Control (B-Con) course offered by the National Association of Emergency Medical Technicians is an example of a newly created program that is appropriate for individuals with little or no medical background. Other methods such as public service announcements, slogans, advertising, and entertainment media should be used to convey the message that bleeding control is a responsibility of the public and is within their capabilities. The public needs to be empowered to engage in life saving actions. The education should be in the context of preparing to deal with all situations involving all hazards including everyday events that may produce trauma and hemorrhage. For professional first responders, more advanced courses may offer additional options to control life-threatening external hemorrhage. All formal training should have specific objectives and train to competency. For professional responders, the training must be time and cost efficient. Ultimately; integrated exercises must be conducted that include all levels of responders. Specific educational content for immediate and professional responders includes:

For Immediate Responders

- Actions for personal safety
- Appropriate interactions with law enforcement, EMS/fire/ rescue, and medical personnel
- How to identify bleeding as being a threat to life
- Use of hands to apply direct pressure
- Proper use of safe and effective hemostatic dressings
- Proper use of effective tourniquets
- Use of improvised tourniquets - as a last resort

For Professional First Responders

- Actions for personal safety
- Coordination and integration of all responders
- Communication among all responders
- Appropriate interactions with immediate responders
- Application of **THREAT** principles
- Proper use of direct pressure
- Proper use of safe and effective hemostatic dressings
- Proper use of effective tourniquets

It is appropriate to utilize existing national organizations to widely disseminate the principals embodied in these education initiatives.

Building Equipment Capabilities for Hemorrhage Control

Immediate responders need to recognize that applying pressure to a bleeding vessel is the appropriate first action to take and that their hands are the first line of equipment. In most cases, control of external hemorrhage can be accomplished by applying direct pressure on the bleeding vessel.

Hemostatic dressings and tourniquets may be needed to effectively stop bleeding. For this reason the Hartford Consensus recommends that all police officers and any concerned citizens carry a hemostatic dressing, a tourniquet and gloves. This should also apply to all EMS/fire/rescue personnel. Ground and air medical transport vehicles should carry multiple dressings and tourniquets based upon local need. In addition, bleeding control bags should be placed and be accessible in public places as determined by a local needs assessment. Potential sites include malls, hospitals, schools, theaters, sports venues, transportation centers, and facilities with limited or delayed access. All hemostatic dressings and tourniquets must be clinically effective as documented by sound scientific data. The Tactical Combat Casualty Care program in the US Military has objective evidence to support the safety and efficacy of the various options for tourniquets and hemostatic dressings.

Contents of the bags should include:

- Pressure bandages
- Safe and effective hemostatic dressings
- Effective tourniquets
- Personal protective gloves

Placement of bleeding control bags should be:

- Next to all automatic external defibrillators (AEDs) as determined by local needs
- Immediately recognizable visually or via a web application
- Secure but accessible
- Able to be used within 3 minutes

Building Resources for the Development and Sustainability of Bleeding Control Programs

Procurement of equipment and training for bleeding control requires actions at the federal, state, and local levels as well as in the private sector. Tourniquet and hemostatic dressing procurement should reflect either the evidence and experience of the US Military gained during 13 years of war or scientific evidence that becomes available. Federal agencies should make elimination of preventable death from hemorrhage a priority issue that will influence funding at the state and local levels. At the state and local levels

government should interact with the private sector to assist in identifying risks at public venues and workplaces. Professional organizations should set standards that encourage education, equipment and training for immediate responders. Training in bleeding control should be offered as a measure of public safety. Municipalities can engage in fundraising activities at the local level to procure equipment. Volunteers can be a resource to provide the training.

Considerations for the development and sustainability of bleeding control programs:

- Using clear and concise messaging that bleeding control is an issue for public and private sectors;
- Engaging the private sector including businesses and trade associations;
- Appealing to philanthropic organizations;
- Applying for grant funding from government and private agencies;
- Involving professional, community, social, and faith-based organizations.

Conclusion

The most significant preventable cause of death in the prehospital environment is external hemorrhage. As demonstrated by the military, widespread bleeding control is critical to saving lives. Our country has a history of learning hard lessons from wartime experiences. The case for hemorrhage control is no different. While the Hartford Consensus directs that all responders have the education and necessary equipment for hemorrhage control, it strongly endorses civilian bystanders as immediate responders. Immediate responders, who are present at the point of wounding, represent a foundational element of our nation's ability to respond to these events and a critical component of our ability to build national resilience. Immediate responders must be empowered to act, to intervene, and to assist. We are a country of people who respond to others in need. It can no longer be sufficient to "See Something, Say Something"; immediate responders must "See Something, DO Something".

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