# Public Access Bleeding Control: Enhancing Local Resilience

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### Abbreviation:

PABC: Public Access Bleeding Control

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A disturbing trend in the incidence of highly coordinated terrorist attacks, mass shootings, and intentional mass-casualty events has reinforced the need for immediate care of those casualties with life threatening injuries. A medical vulnerability exists in the immediate aftermath of these events, from the point of injury until organized emergency medical resources can gain access and begin treating the injured. During this key interval of time, those casualties with potentially survivable injuries can succumb if simple interventions are not performed. Acknowledgment of this vulnerability and the associated challenge is central to finding ways to enhance the survival of those critically injured. For nearly two decades, global military forces have acknowledged that severe hemorrhage is the single biggest cause of preventable death on the battlefield. Beyond the battlefield, severe hemorrhage remains to be the leading cause of preventable death amongst trauma patients within the first 24 hours of injury.

The prehospital and disaster medical community has long recognized the force-multiplying powers of able-bodied lay rescuers during times of disasters and other crises. The emergency, trauma, and disaster literature contains many examples of immediate post-event, ad-hoc emergency medical care, rescues, and casualty evacuation being performed by those immediately present and willing to help. Traditionally referred to as "bystanders," the actions of these unsung heroes are far from just *standing by*. Rather, these individuals have begun to be referred to as "immediate responders."

Public Access Bleeding Control (PABC) has emerged as one such mitigation strategy to enhance all-hazards resiliency in the community. Public Access Bleeding Control refers to public education efforts of how to stop severe bleeding and the strategic placement of bleeding control kits in public locations. The topic of PABC was the central theme of the October 2015 White House unveiling of the US federal government's "Stop the Bleed" effort. During this event, leaders from government, academia, industry, and professional organizations gathered to share best practices and strategies to get this life saving knowledge and equipment into the hands of those immediate responders. The Hartford Consensus series of expert recommendations focuses on the need to empower the public to help in the aftermath of such events and calls for the broad-reaching education on hemorrhage control and for the placement of bleeding control kits in public places. The science behind hemorrhage control strategies stems from the evidence-based recommendations of US Military's Committee for Tactical Combat Casualty Care (CoTCCC) and the civilian Committee for Tactical Emergency Casualty Care (C-TECC).

In the wake of continued acts of intentional harm worldwide, it is essential to raise awareness of PABC at an international level. All too often, delays in hemorrhage control contributes to poor patient outcomes. As leaders in the prehospital and disaster medical community, PABC represents another opportunity to improve survival of victims of such events. Different from examples of stockpiling essential disaster medical equipment in centralized caches, the immediate need to access bleeding control equipment requires a decentralized deployment strategy. One strategy is to co-locate bleeding control kits with public access Automated External Defibrillators (AEDs). These kits usually contain several key pieces of equipment, including tourniquets, hemostatic dressings, gloves, and just-in-time instructions. The idea is for these kits to be used by those present to help one another in the immediate aftermath of an event until organized, professional, emergency services and emergency responders can get to the injured. A resource for references and resources in the development of a PABC program is the US Department of Homeland Security's (Washington, DC USA) "Stop the Bleed" web site.<sup>1</sup>

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As bleeding control kits become more common, so do the challenges associated with free enterprise. One concern is that sham equipment is making its way into these lifesaving resources. These counterfeit items are often difficult to discern from the real thing and frequently are priced considerably less than the genuine original, making them appealing to those unaware. Already, there have been case reports of imitation tourniquets failing on critically injured patients. Another concern is that some equipment is available for purchase that is not evidence-based, and in some cases, deceptively labeled as being "approved" by some of the above aforementioned expert groups. To help avoid this potential pitfall, those who are looking to develop a PABC program are encouraged to reference the recommendations, all of which are accessible online.

In addition to placement of PABC kits, training is the other key component to the success of such a program. Many groups are working on the development of emergency care and bleeding control training curricula. While there is no one-size-fits-all program, central themes to this training include how to identify life threatening bleeding, basic interventions to control bleeding, as well as how and when to use other interventions such as hemostatic gauze and tourniquets. Ultimately, a hybridized training model that includes online, in-person, and just-in-time resources will likely prevail.

Preparing for such situations is an unfortunate reality of modern society. However, beyond these high profile events, PABC also has day-to-day practicality for incidents of everyday trauma, such as industrial mishaps and motor vehicle collisions. Public Access Bleeding Control is modular, scalable, and easily implementable. It represents a realistic and tangible effort to enhance resiliency from all-hazards threats.

#### Reference

 US Department of Homeland Security. "Stop the Bleed" Web site. www.dhs.gov/ stopthebleed. Accessed March 28, 2016.