

Community preparedness:



Mark Gestring, MD FACS
Chair, EMS Committee



AMERICAN COLLEGE OF SURGEONS
*Inspiring Quality:
Highest Standards, Better Outcomes*



Disclosures

➤ None

Introduction

- Uncontrolled hemorrhage remains the single most preventable cause of death after traumatic injuries.

Introduction

- There is no such thing as a “Golden Hour” for patients with exsanguinating hemorrhage.



Introduction

- The greatest opportunity to save lives after injury is in the prehospital setting.

The trauma care chain of survival

A National Trauma Care System:
Integrating Military and
Civilian Trauma Systems to Achieve
ZERO preventable deaths after injury.

NASEM June 2016



The trauma care chain of survival

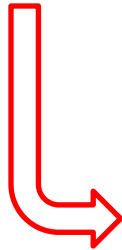
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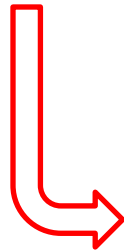
How we got here

Evolving civilian injury patterns



How we got here

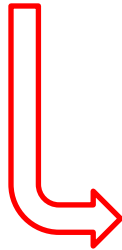
**Evolving civilian
injury patterns**



Virginia Tech, April 2007
Binghamton, April 2009
Fort Hood, November 2009
Sandy Hook, December 2012
Boston Marathon, April 2013
Charleston, June 2015
Paris, November 2015
San Bernardino, December 2015
Brussels, March 2016
Orlando, June 2016
Dallas, July 2016
Nice, July 2016
London, March 2017

How we got here

**Evolving civilian
injury patterns**



**Military style injuries
Multiple casualties
Complicated scenes**

How we got here



Combat Medic Memorial Statue, Fort Sam Houston, TX

Lessons learned in war



Lessons out of conflict

“The military’s experience with rapid bleeding control is not only relevant but also timely”.

Lessons out of conflict

Review of 4,596 US combat fatalities, 2001-2011

- Incidence of preventable death from extremity hemorrhage dropped (7.8% → 2.6%)
 - 67% decrease
- Decrease coincided with widespread fielding of tourniquets to US forces

Lessons out of conflict

The number of US lives saved through the use of tourniquets alone is estimated to be between 1,000 and 2,000.



How we got here

Lessons learned in war



Importance of rapid hemorrhage control

Bleeding control in the civilian setting

SPECIAL CONTRIBUTION

AN EVIDENCE-BASED PREHOSPITAL GUIDELINE FOR EXTERNAL HEMORRHAGE CONTROL: AMERICAN COLLEGE OF SURGEONS COMMITTEE ON TRAUMA

Eileen M. Bulger, MD, FACS, David Snyder, PhD, Karen Schoelles, MD, FACP, Cathy Gotschall, ScD, Drew Dawson, BA, Eddy Lang, MD, CM CCFP (EM) CSPQ, Nels D. Sanddal, PhD, NREMT, Frank K. Butler, MD, FAAO, FUHM, Mary Fallat, MD, FACS, Peter Taillac, MD, Lynn White, MS, CCRP, Jeffrey P. Salomone, MD, FACS, NREMT-P, William Seifarth, MS, NREMT-P, Michael J. Betzner, MD, FRCPC, Jay Johannigman, MD, FACS, Norman McSwain, Jr., MD, FACS, NREMT-P

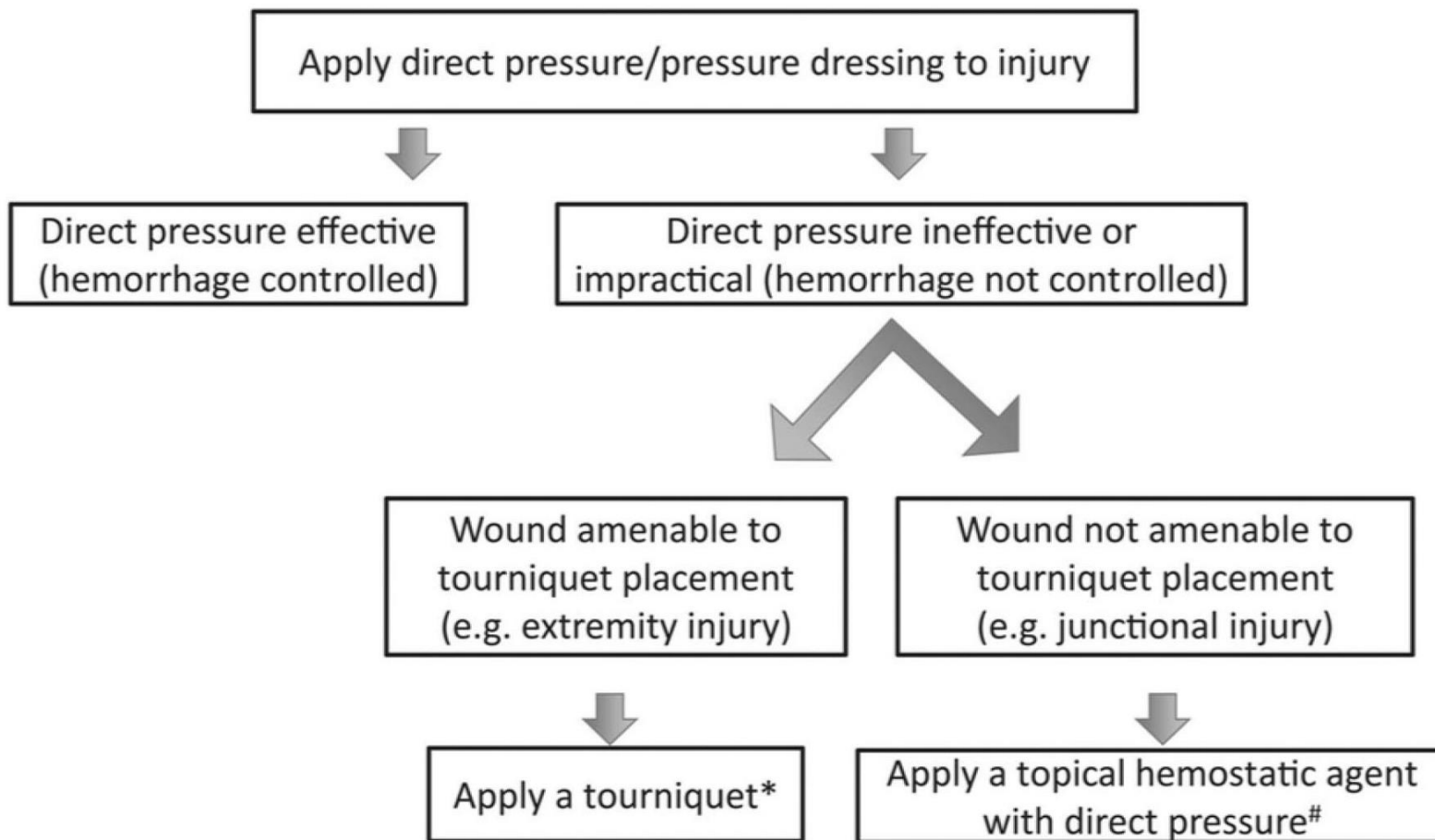
Recommendations - Tourniquets

- 1) Recommend use of tourniquet in prehospital setting for control of significant extremity hemorrhage if direct pressure is ineffective or impractical.
- 2) Suggest using commercially produced windlass, pneumatic or ratcheting devices that have been demonstrated to occlude arterial flow.
- 3) Suggest against the use of narrow, elastic or bungee-type devices.
- 4) Suggest that improvised tourniquets be applied only if no commercial device is available.
- 5) Suggest against releasing a tourniquet that has been properly applied in the prehospital setting until the patient has reached definitive care.

Recommendations – Hemostatics

- 1) Suggest the use of topical hemostatic agents, in combination with direct pressure, for control of significant bleeding in the prehospital setting in anatomic areas where tourniquets cannot be applied and where sustained direct pressure alone is ineffective or impractical.
- 2) Suggest that topical hemostatic agents be delivered in a gauze format that supports wound packing.
- 3) Only products determined effective and safe in a standardized laboratory injury model should be used.

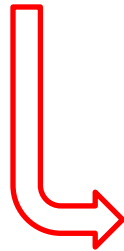
Prehospital External Hemorrhage Control Protocol



How we got here

**Evolving civilian
injury patterns**

**Lessons learned in
war**



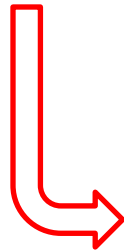
**Hartford Consensus
Military experience
Evidence-based guidelines**



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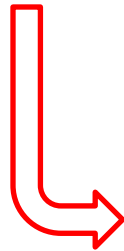
**Importance of rapid
hemorrhage control
+
Immediate responder**



How we got here

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SAVE A LIFE



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THE
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Operationalizing B-con education

Stress importance of “preparedness”

Focus on “all hazards”

- Stress relevance of skill set

Key Concepts

- Empower civilians as “immediate responders”
- Early (immediate) bleeding control
- Public awareness is critical

The immediate responder

- As demonstrated after the Boston Marathon bombing, the public can and will act as first responders.

B-Con

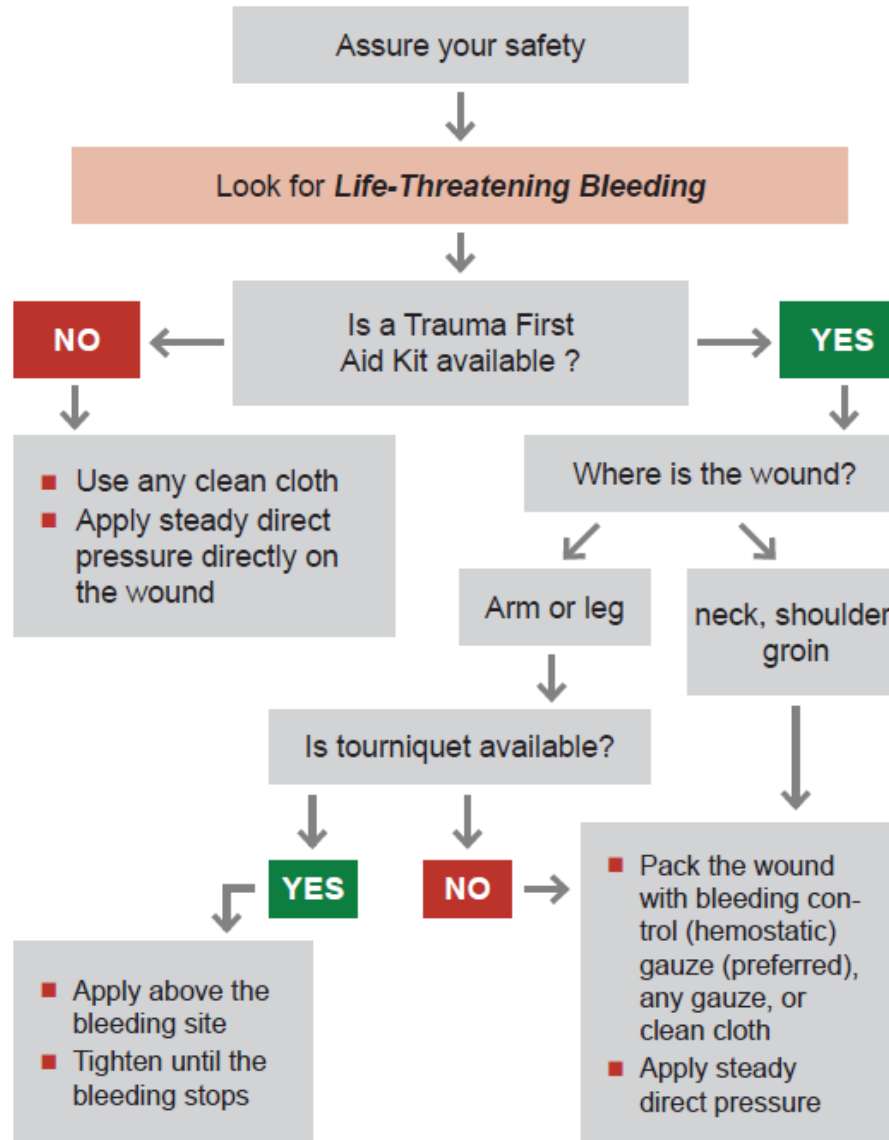
- Course is designed to educate and empower the public to recognize and stop severe bleeding before the arrival of medically trained first responders.



B-Con

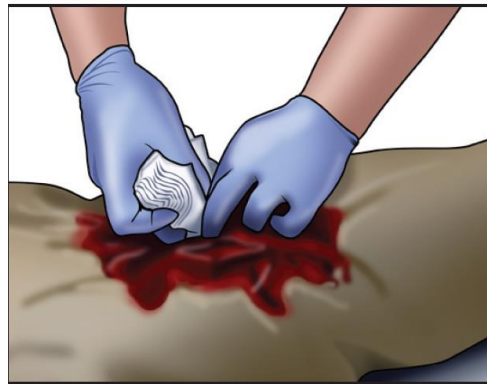
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B-Con

- Ensure your own safety
- The ABCs of bleeding
 - **A** - Alert - Call 911
 - **B** - Bleeding – Find the bleeding injury
 - **C** - Compress – Apply pressure/pack/tourniquet



B-Con

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- The ABCs of bleeding
 - **A** - Alert - Call 911
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 - **C** - Compress – Apply pressure/pack/tourniquet
- NOT just a tourniquet course



B-Con

Who can teach

- ATLS instructor or provider
- ATCN/TNCC instructor or provider
- Any EMR, EMT, Paramedic, RN, PA or MD

B-Con

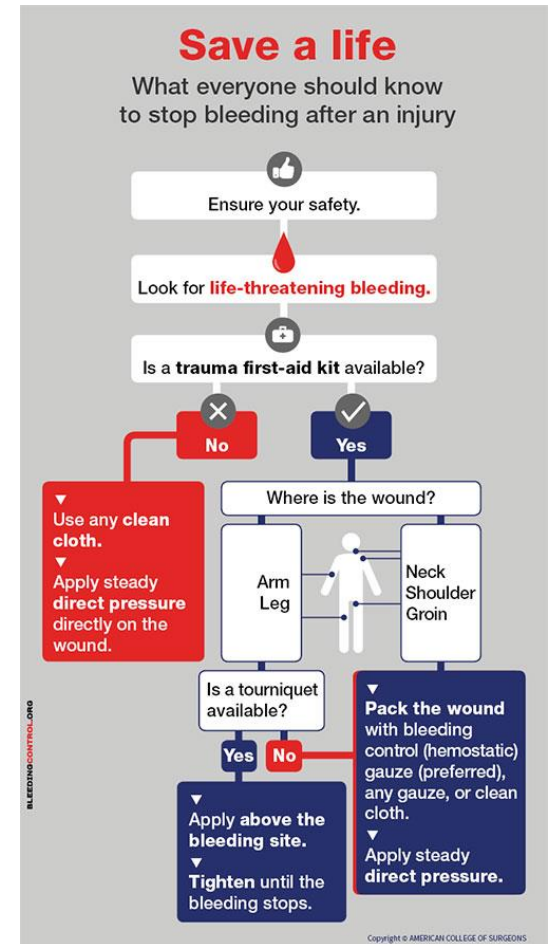
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 - Any EMR, EMT, Paramedic, RN, PA or MD
-
- **After completion of a provider course**

National “Stop the Bleed” initiative

■ B-Con

- 2,055 instructors as of 4/17
- 627 courses completed
- 152 courses scheduled
- All 50 states



National “Stop the Bleed” initiative

National effort

- Awareness
- Advocacy
- Equipment
- Sustainability





SAVE A LIFE

BLEEDINGCONTROL.ORG

Instructor Portal >

Enter Keyword

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News Updates

Resources

Store

Find a Class

STOP THE BLEED
SAVE A LIFE
[Learn More](#)

See Something

Do Something

Improving Survival

News Updates >

- Surgeons lobby to get tourniquet kits in Georgia schools**
February 12, 2017
- Mission Viejo employees trained to help public during an emergency or**

Bleeding Control Featured




Bleeding Control PSA Airs on CBS >



National “Stop the Bleed” initiative




National “Stop the Bleed” initiative



I could have been saved.
I didn't see the metal fence stake. I was running trying to catch the ball when I fell on it. I was bleeding a lot. All the grown-ups on the playground ran to me, but they didn't do anything. They just looked at me. A woman started screaming. Why didn't they call 911 and use a sweatshirt to press hard on where I was bleeding? I was a kid and even I knew that.

This story is illustrative of the hundreds who needlessly die each year from bleeding out. Learn more at bleedingcontrol.org

CALL 911 PRESS HOLD 

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National “Stop the Bleed” initiative



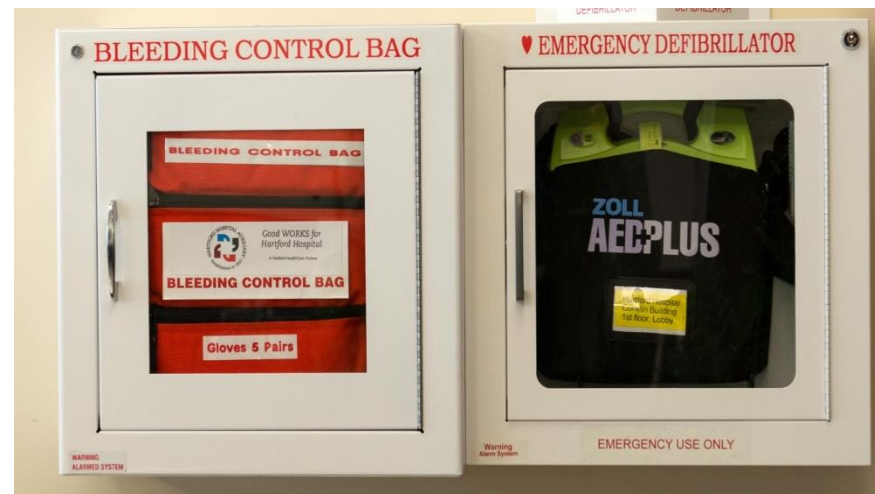
National “Stop the Bleed” initiative



National “Stop the Bleed” initiative

Equipment/Sustainability

- Requires action at the federal, state and local level
- Private sector
- Multiple potential funding sources



National “Stop the Bleed” initiative

- What can you do?
 - Teach B-Con
 - Help make the course available
 - Be an advocate



The only thing more tragic than a death...
is a death that **could have been prevented.**

BLEEDINGCONTROL.ORG





STOP THE BLEEDSM

SAVE A LIFE



100+years

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ON TRAUMA**

