

ACFASP Advisory Topical Hemostatic Agents



Overall Recommendation including any Standard, Guideline or Option:

Standards: None

Guidelines: None

Options:

Lay Community Responder: No evidence to support use of topical hemostatic agents

Trained Rescuer: With appropriate training, topical hemostatic agents are applicable in situations where initial direct pressure has failed to control hemorrhage (Level II.)

Questions to be addressed:

Is the use of hemostatic agents by the civilian layperson community and trained responders effective, appropriate and applicable in the out-of-hospital setting?

Introduction/Overview:

With the advent of hemostatic products now being made available to consumers, lay persons and EMS personnel alike, an evidenced based literature review was conducted to evaluate the efficacy and applicability of these agents in the out-of-hospital environment. Currently, the utilization of hemostatic agents has been predominantly limited to researchers and the military under laboratory and combatant situations.^{4,6,7} This scientific review indicates hemostatic agents have **efficacy** in controlling hemorrhage which is unable to be controlled with direct pressure alone (Jackson, MR, Friedman, SA, Carter, AJ, Vladislav, BS, 1997; Larson, MJ, Bowersox, JC, Lim, RC, Hess, JR, 1995.)

Implementation by military and civilian EMS trained responders demonstrated varying effectiveness secondary to appropriate utilization of the hemostatic agent instrument (Brown, DM, Worley, J, 2007; Wedmore, I, McManus, JG, Pusateri, AE, Holcomb, JE, 2006.) Their applicability in the out-of-hospital setting has primarily focused on use during military operations and limited implementation within the civilian emergency medical system. A retrospective analysis of a 21% failure rate by emergency medical providers identifies the need to define appropriate injury severity application and initial and continuing educational

methodologies.⁸ Little discourse and no studies were identified for civilian laypersons utilizing hemostatic agents.

Summary:

Based on the reviewed literature, the use of topical hemostatic agents by civilian laypersons is not currently supported. Studies are limited and isolated to out-of-hospital military and health care providers, with the **effectiveness** based on appropriate utilization (sized to injury, application directly to source of bleeding) for control of hemorrhage. As such, the **efficiency** cannot be determined without development and implementation of education methodologies with the ability for measuring practical application by the civilian community as well as identifying when victims need to follow-up with a trained healthcare provider.