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| Clinical Practice Guideline: Extremity Hemorrhage Control | | |
| Effective Date: 6/1/2016 | Original Date: 2016 | Approval/Update Date: 05/28/2024 |
| Number: TP-1006 | | Version: 3 |
| Facility (Scope): MedFlight, Emergency Department | | |

POLICY STATEMENT:

External hemorrhage has been recognized as a major cause of potentially preventable death following traumatic injury. All external extremity hemorrhage should be controlled immediately to prevent shock and life-threatening exsanguination. Hemorrhage control should progress from direct pressure to surgical intervention as determined by the Trauma Surgeon. Combat Application Tourniquet (CAT) or a commercial tourniquet should be used when appropriate and available. Primary RN, flight RT, or flight paramedic is responsible for management and reassessment of all tourniquets.

DEFINITIONS:

Combat Application Tourniquet (CAT): a small, lightweight one-handed tourniquet that can effectively occlude arterial blood flow in an extremity. The CAT employs a Self-Adhering Band and Friction Adaptor Buckle to fit a broad range of extremities. (<http://combattourniquet.com>)

QuikClot: Hemostatic dressing QuikClot Gauze is impregnated with kaolin, an inorganic mineral that accelerates the body’s natural clotting ability and produces no exothermic reaction. (see <http://www.quikclot.com/>)

PROCEDURE:

A. Resuscitation of the trauma patient is guided by the principles outlined in ATLS.

1. Control external hemorrhage. If an extremity:
 - a. If possible, elevate extremity.
 - i. Apply direct manual pressure over the wound. If this doesn’t stop bleeding, then proceed to b.
 - b. Apply QuikClot (or other hemostatic) dressing
 - i. Press QuikClot Gauze into wound while holding direct pressure. Pressure must be held for 3 minutes.
 - ii. If bleeding is controlled, secure the gauze pads with roll gauze, an elastic bandage or self-adhering wrap.
 - iii. If bleeding is not controlled and there is a cavity use gloved finger or forceps to place unrolled gauze into wound, ensuring that the gauze reaches the base of the wound. Continue to place gauze until wound is tightly packed and hold direct pressure for minimum of 3 minutes. If bleeding does not stop and the wound is distal enough to apply CAT tourniquet then proceed to c:
 - c. Apply CAT (or commercial) tourniquet.
 - i. Slide the extremity through the loop of the Self-Adhering Band or wrap Self-Adhering Band around the extremity (do not place over a joint) and reattach to friction adapter buckle.
 - ii. Position the CAT above the wound; leave at least 2 inches of uninjured skin above the wound.
 - iii. Do not position the CAT over a joint; apply above joint if necessary
 - iv. Secure the CAT.
 1. Pull the free running end of the Self-Adhering Band as tight as possible and securely fasten it back on itself (if applying to an arm wound). Do not adhere the band past the Windlass Clip.
 2. If applying to the leg wound, the Self-Adhering Band must be routed through both sides of the friction adapter buckle and fastened back on

