Subject: BLEEDING & BANDAGING (BLS & ALS)

MEDICAL PROGRAM DIRECTOR: _____(J. Horsley, MD)_____

EFFECTIVE DATE: __10-2016_____

BLEEDING

Managing bleeding so that it stops completely as quickly as possible is a primary goal of EMS responders.

Specific information needed:

A. Mechanism of injury and forces involved.
B. Past medical problems and medications

Specific objective findings:

A. Vital signs, including neurologic assessment
B. Level of sensory and motor deficit: presence of any evidence of neurologic function below level of injury ***(attempt GCS)***
C. Physical exam, with careful attention to organs or limbs which may not have sensation

General treatment:

A. Assess airway and breathing: treat life-threatening difficulties, use controlled ventilations for high cervical cord injury associated with abdominal breathing, and maintain inline cervical immobilization while managing ABC's
B. Administer O2
C. Control hemorrhage ***as indicated below***.
D. Immobilize cervical, thoracic and lumbosacral spine ***if indicated per protocol.***
E. Obtain initial vital signs and neruologic assessment

Avanced Skills (F & G)-

F. Establish venous access. If signs of hyovolemia, fluid bolus 10-20cc/kg to maintain SBP>100
G. Consider narcotic analgesia per protocol
H. Monitor airway, vital signs and neurologic status frequently at scene and during transport

Control external bleeding with:

- **Direct pressure** – using BSI, apply firm pressure by fingertips or full hand directly to the point or area of blood loss for up to 3 minutes. Using a dry dressing is helpful. Consider pressure dressing if available.
- ***Coagulant impregnated bandage or topical coagulant*** *– see below.* ***Not required on aid unit or ambulance. Optional per agency preference.***
- **Tourniquet** – see below.
- Dress and Bandage wound when bleeding has stopped.

Coagulant Impregnated Bandage or Topical Coagulant

1. Expose wound. Identify active bleeding tissues.
2. Apply coagulant impregnated bandage or topical coagulant product.
3. Apply firm direct pressure for up to 3 minutes.

4. Ensure bleeding has stopped completely.
5. Dress and Bandage wound. Allow for distal circulation assessment.

Tourniquet

6. Tourniquest are used for uncoltrolled/uncontrollable bleeding from wounds to limbs. A commercially produced tourniquet is preferred.
    - Arms – 1 in tourniquet
    - Legs - 2 in tourniquet recommended
7. Expose the limb completely
8. Apply the tourniquet above and near the wound. Do not apply above or across joints if possible.
9. Tighten tourniquet until bleeding stops.
10. Write the time of application on the patient's skin (ex: TK 1645)
11. Dress, bandage and immobilize affected extremity. Consider coagulant bandage or topical coagulant to aid bleeding control. (Regardless of the type of tourniquet used, once applied, do not remove it if the patient is in shock, the limb was amputated, there are obvious arterial disruptions, the tourniquet has been on for an extended period, or you will be transferring care and can no longer observe the patient.)
12. Keep tourniquet exposed.
13. Expect increased pain from the tourniquet.
14. Initiate rapid transport, notifying ER of tourniquet placement.
15. Consider advanced care for IV fluids.
16. Consider use of compression dressing with or without coagulant as an option to tourniquet.

Note: Once positioned, tourniquet tightness requirements will increase with the size of the limb. There is an inverse relationship between the width of the tourniquet and the pressure needed to halt arterial blood flow. Complete occlusion of arterial flow on the lower extremities is extremely difficult, if not impossible, with a one inch wide tourniquet. A wide tourniquet will be more effective on a lower extremity, as there is less pressure needed on the greater surface area to successfully occlude arterial blood flow, and less tissue damage will occur.

Epistaxis (nosebleed)

BLS Care

1. Have the patient sit down and lean forward
2. Pinch and hold nostrils closed for 5-10 minutes
3. Discourage patient from swallowing blood
4. If the patient loses consciousness, place in recovery position

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DRESSING AND BANDAGING

1. Maintain body substance isolation (BSI) by wearing appropriate personal protective equipment.
2. Control bleeding with direct pressure and dressings as needed. Consider a “wound stop” dressing.
3. If bleeding is not rapidly controlled, consider applying topical coagulant or tourniquet.
4. Secure the dressing with a bandage that is snug but does not impair circulation, unless a tourniquet is required.
5. Large, easily removed debris, such as glass, splinters, or gravel can be removed before bandaging. Secure large, deeply imbedded fragments or projectiles in place with the bandage.
6. If possible, leave patient’s fingers or toes exposed.
7. Check circulation by feeling for a distal pulse or checking capillary refill.
8. Elevate or immobilize the injured extremity, if possible.
9. Cover eviscerated abdominal contents with a large multi-trauma dressing soaked with saline. Then apply an occlusive dressing, if available, to retain heat and moisture. Secure as needed.