County of San Luis Obispo Public Health Department

Division: Emergency Medical Services Agency

Procedure #706

Effective Date: 08/01/2019

## HEMORRHAGE CONTROL/TOURNIQUET/HEMOSTATIC DRESSINGS

ADULT PEDIATRIC (≤34 KG)

#### **BLS**

- Universal Protocol #601
- Pulse Oximetry
  - O 2 administration per Airway Management Protocol #602
- Hemorrhage control
  - Direct Pressure
  - Tourniquet application see notes below
  - Hemostatic dressing for uncontrolled hemorrhage after all above measures fail

#### **ALS Standing Orders**

- Hypotension See General Trauma Protocol #660
- Hypotension See General Trauma Protocol #660

# Significant blood loss with ongoing bleeding not controlled by direct pressure, hemostatic agents, or tourniquet application

- Consider TXA if indicated and ≥15 y/o TXA Administration Procedure #714
  - TXA 1 gm in 100 mL IV infusion over 10 min, no repeat

#### **Base Hospital Orders Only**

- Tourniquet removal see notes below
- As needed

#### Notes

- Indications for tourniquet application
  - Life threatening, persistent hemorrhage that cannot be controlled by other means
- Contraindications for tourniquet use
  - Non-extremity hemorrhage
  - o Proximal extremity (junctional) locations where tourniquet application is not practical
- TOURNIQUET APPLICATION BLS
  - Visually inspect injured extremity and avoid placement of tourniquet over joint, angulation or open fracture, stab/penetrating or gunshot wound sites
  - Assess and document circulation, motor and sensation distal to injury site
  - Apply approved tourniquet proximal to wound (usually 2-4 inches) per manufacturer recommendations
  - Tighten tourniquet rapidly to least amount of pressure required to stop bleeding and/or distal pulses are affected
  - Cover wound with appropriate clean/sterile dressing/bandage
  - DO NOT cover tourniquet keep visible
  - Re-assess and document absence of bleeding distal to tourniquet
  - Remove any improvised tourniquets that may have been applied after approved tourniquet is applied
  - Document time of placement <u>ON</u> the tourniquet device

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o Inform receiving facility and personnel of tourniquet placement and time of placement

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### • TOURNIQUET REMOVAL - ALS with Base Hospital consult only

- O When the ALS personnel on scene determine:
  - The tourniquet was inappropriately or improperly placed
  - The tourniquet may no longer be necessary
- PROCEDURE FOR TOURNIQUET REMOVAL
  - Obtain IV access
  - Monitor ECG
  - Maintain firm pressure over wound for minimum of 5 minutes before releasing
  - Slowly release tourniquet and monitor for reoccurrence of bleeding
  - Document time of release
  - Bandage, reassess and document circulation, motor and sensation distal to the wound site

#### • HEMOSTATIC DRESSING USE

- If bleeding persists for greater than 3 min despite using all other measures for control, apply approved hemostatic dressing directly to the bleeding site according to manufacturer's direction
- Replace absorbent pad/pressure dressing
- o Apply direct pressure and/or replace tourniquet per manufacture's recommendation
- Approved tourniquet and hemostatic dressings listed in #706 Attachment-A