Protocol 700-T1: Trauma

Revision 2/21/23
Effective 1/1/20

BLS Treatment

- Treat life threats. (See Procedure 701 *Life Threats*)
- Control external bleeding using:
  - Direct Pressure
  - Tourniquets
  - Pressure Bandages
  - Hemostatic Gauze
- Spinal precautions as indicated
- Splint as appropriate in position of comfort.
- A traction splint is indicated for mid-shaft femur fractures.
- Cover eviscerations with moist, sterile dressings.
- Cover open chest wounds with approved chest seal dressings. Evaluate frequently.
- Prepare for transport/ transfer of care.
- Refer to Triage Tool (Policy 626 *Trauma Triage*) during assessment and treatment.

ALS Treatment

- Treat life threats. (See Procedure 701 *Life Threats*)
- Control internal bleeding (see also *Protocol 700-T4 Hemorrhage Control*)
  - **Tranexamic Acid (TXA)**
    - Indications
      - Blunt or penetrating traumatic injury with signs and symptoms of hemorrhagic shock (including SBP <90)
      - Hemorrhage not controlled by direct pressure, hemostatic agents, or commercial tourniquet application
    - Contraindications
      - Any patient < 15 years old
      - Time since injury > 3 hours
      - Thromboembolic event (i.e., stroke, MI, PE, DVT) in past 24 hours
      - Traumatic arrest with > 5 minutes of CPR without ROSC
      - Hypotension secondary to suspected cervical cord injury with motor deficit or spinal shock
      - Known hypersensitivity or allergy to TXA
    - Adverse Reactions
      - GI: Nausea, vomiting, diarrhea
      - Visual: Blurry vision or changes in color perception
      - CNS: Fatigue, dizziness, headache, seizure

- Thromboembolic: Deep venous thrombosis or pulmonary embolism
- Administration
  - Mix 1-gram **TXA** in 100 ml or 250 ml **Normal Saline** or **D5W** and infuse IV/IO over 10 minutes
    - Avoid push dose due to risk of hypotension
    - Onset of action: 5-15 minutes
    - Duration of action: 3 hours
    - Single dose only

❖ Transport.
❖ Contact Base Station as indicated.

Traumatic Brain Injury

❖ Ensure continuous pulse oximetry, capnography and frequent blood pressure checks
❖ Avoiding the "H-Bombs" improves survival 2x for all, 3x for intubated patients:
- Hyperventilation
  - Maintain $EtCO_2$ between 35-45
- Hypoxia
  - Maintain O2 Sat up to 100% using NRB mask
- Hypotension
  - Maintain SBP ≥ 110 mmHg

Special Considerations

❖ If a trauma patient is being transported to a local hospital, make early notification.
❖ Most fractures on multi-systems trauma patients should be splinted to the backboard.
❖ Remember that the top causes of preventable trauma fatality include hypoxia, open chest wounds, and uncontrolled external hemorrhage.
❖ Try to adhere to the "time rule" when managing critical trauma:
❖ If the intervention is not critical for managing an immediate life threat, then it should not be done on scene as time is always more important.

Documentation

❖ Trauma is a System Quality Indicator (See Policy 101 Quality Improvement Program and System Evaluation and Policy 502 Santa Cruz County Patient Care Record (PCR) and Transfer of Care Document.
❖ Minimum documentation elements include:

- ❑ Scene times (TRA-1)
- ❑ PAM scale recorded
- ❑ Appropriate destination (TRA-2)