Treatment Protocols **Date: 07/01/2025**

Traumatic Cardiac Arrest - Adult **Policy #9240A**

Adult BLS Standing Orders

- Universal Patient Protocol
- Apply Spinal Motion Restriction (SMR) as indicated per policy
- High quality uninterrupted CPR (See CPR Policy)
- Manage airway and ventilation per **Airway Policy** and **BVM Policy**
- Apply AED and follow device instructions **(See Defibrillation Policy)**
- Capnography
- Address any areas of significant blood loss prior to arrest with hemorrhage control measures, **regardless if the wound or laceration is actively bleeding**
- Apply tourniquet(s) proximal to any large wound, laceration or amputation of the extremities, **regardless of any active bleeding or hemorrhage.**

If applicable:

- **Determination of Death in the Field Policy**
- **Do Not Resuscitate Policy**
- **Termination of Resuscitation Policy**
- **Hemorrhage Control Policy**

Adult LALS Standing Orders

- Establish IV
- Capnography
- NS 500-1,000 mL IV MR x 1 to a max of 2,000 mL to maintain a SBP of ≥ 90 mmHg

Adult ALS Standing Orders

- If non traumatic cardiac arrest is suspected as the cause of the traumatic event, treat the patient as a medical source for cardiac arrest (ex: single car accident, or found down with pill bottles nearby)
- If the traumatic arrest patient is asystolic on initial contact of EMS, do not attempt resuscitation.
- If rhythm besides asystole: provide high quality uninterrupted CPR

***** Mechanical CPR devices are prohibited on traumatic arrests *****

- Monitor EKG
- Establish IV/IO
- Capnography
- ETT
- 12 Lead ECG
- If ETT attempt(s) fail:
  - Supraglottic airway device
- If both ETT and Supraglottic airway attempts fail:
  - Oropharyngeal airway (OPA) with BVM
- EtCO2 continuous numeric and waveform monitoring on every airway adjunct
- BVM, ventilate once every six (6) seconds to a total of 10 respirations a minute.
- Initiate Transport to closest receiving hospital, if within 15 minute transport time, all remaining care to be completed en-route to nearest hospital

- **If hospital distance is > 15 minutes following a Traumatic Cardiac Arrest, call Base Station for potential Termination of Resuscitation**
- Vascular Access (IV) or (IO), (large bore, bilateral access preferred if available), wide open (WO)
- If Return of Spontaneous Circulation (ROSC) occurs after any intervention, titrate fluids to maintain a systolic blood pressure of 90 mmHg, obtain 12 Lead ECG (if it doesn't delay transport) and continue transport to nearest hospital.

Ventricular Fibrillation or Pulseless Ventricular Tachycardia

- Note: Epinephrine is not indicated in traumatic cardiac arrest. If suspected medical cause for arrest, go to medical cause cardiac arrest algorithm.
- Defibrillation at manufacturer's suggested values (example: 200 joules for adult patients)
- Administer amiodarone 300 mg IV/IO or Lidocaine 1-1.5 mg/kg IV/IO
  - If after 5 minutes rhythm remains refractory:
  - Amiodarone 150 mg IV/IO, for a max cumulative dose of 450 mg or Lidocaine 0.5 mg/kg IV/IO up to 3 mg/kg

Asystole and Pulseless Electrical Activity

***** Note: Epinephrine is not indicated in traumatic cardiac arrest. ******

- Identify and treat any reversible causes:
  - **Hypovolemia:** Reassess any hemorrhage control interventions to ensure they are adequately addressing blood loss and reapply if necessary. Consider a rapid **500-1,000 ml fluid infusion**
    - Consider TXA if considering hemorrhagic shock per **TXA Policy** SO
  - **Hypoxia:** Ensure that the patient is adequately ventilated and airway maintained
  - **Tension Pneumothorax:** If tension pneumothorax is suspected or the patient has a traumatic injury to the chest, perform bilateral pleural decompression if not already completed **SO**
  - **Hypothermia:** Consider rewarming measures
  - Patients that are hypothermic can be unresponsive to pharmaceutical therapy and electrical therapy
- Ensure proper chest rise and fall with respirations
- Reassess any sucking chest wounds or flail segment interventions
- Reassess endotracheal tube position for dislodgment, occlusion or mainstem bronchus location
- Treat any rhythm changes according to correct treatment protocol

Reversible Causes:

H's & T's • Hypovolemia • Hypoxia • Hydrogen ion excess (acidosis) • Hypoglycemia • Hypokalemia • Hypothermia	• Tension pneumothorax • Tamponade – cardiac • Toxins • Thrombosis (pulmonary embolus) • Thrombosis (myocardial infarction)

APPROVED:
SIGNATURE ON FILE – 07/01/25
Katherine Staats, M.D. FACEP
EMS Medical Director