

Treatment Protocols**Date: 02/01/2021****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)
- Secure Airway with Oropharyngeal airway (OPA) per **Airway Policy**
- BVM – Ventilate once every six seconds (10 breaths per minute), with >15 LPM oxygen
- Insert supraglottic airway (EMT-B optional skill accreditation) per **Airway Policy**
- Ensure rapid transport to closest receiving hospital unless patient shows signs of obvious death.
- 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**

Adult LALS Standing Order Protocol

- Establish IV PRN
- Administer NS 500-1,000 mL bolus, titrate to SBP 90 mmHg

Adult ALS Standing Order Protocol

- 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)
- Place patient on cardiac monitor
- 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 ***

- Endotracheal Tube (ETT) with Bougie, at least one attempt
- 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 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)

Treatment Protocols

Date: 02/01/2021

Traumatic Cardiac Arrest - Adult

Policy #9240A

- If Return of Spontaneous Circulation (ROSC) occurs after any intervention, titrate fluids to maintain a systolic blood pressure of ninety (90), 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**
 - **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:

<p>H's & T's</p> <ul style="list-style-type: none"> • Hypovolemia • Hypoxia • Hydrogen ion excess (acidosis) • Hypoglycemia • Hypokalemia • Hypothermia 	<ul style="list-style-type: none"> • Tension pneumothorax • Tamponade – cardiac • Toxins • Thrombosis (pulmonary embolus) • Thrombosis (myocardial infarction)
--	---

APPROVED:

Signature on File

Katherine Staats, M.D.
EMS Medical Director