

Treatment Protocols**Date: 07/01/2023*****Traumatic Cardiac Arrest - Pediatric*****Policy #9240P****Pediatric BLS Standing Orders**

- Universal Patient Protocol
- Apply Spinal Motion Restriction (SMR) as indicated per policy
- High quality uninterrupted CPR (See CPR Policy)
- Refer to **Airway Policy**
- BVM per **BVM Policy**
- Apply AED and follow device instructions (**See Defibrillation Policy**)
- 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**

Pediatric LALS Standing Orders

- Establish IV
- 10-20 mL/kg NS IV bolus; titrated to age-appropriate systolic BP MR x1

Pediatric 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)
- 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 ***

- Control airway per **Airway Policy**
- For pediatrics, optimal airflow can be achieved:
 - Oropharyngeal airway (OPA) with BVM
- EtCO2 continuous numeric and waveform monitoring on every airway adjunct
- BVM per **BVM Policy**
- 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 an appropriate blood pressure for age, and obtain 12 Lead ECG (if it doesn't delay transport) and continue transport to nearest hospital.

Ventricular Fibrillation or Pulseless Ventricular Tachycardia

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- 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, can reference weight-based dosing in protocols (example: 200 joules for adult patients)
- Contact **BH** for potential amiodarone or lidocaine medication administration

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 **10-20 ml/kg fluid infusion**
 - Consider TXA if hemorrhagic shock suspected and patient qualifies
 - **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 **BHO for pediatric patients. SO for patients > 15 years old or larger than pediatric measurement tape**
 - **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
- Treat any rhythm changes according to correct treatment protocol

Pediatric Base Hospital Orders

- Contact **BH** for pleural decompression of pediatric (< 15 years old or measured by the pediatric measurement tape) patients
- Contact **BHP** for potential medication administration in traumatic cardiac arrest with a VF/VT rhythm:
 - Amiodarone or lidocaine per dosing chart and **BHP** recommendation

Reversible Causes:**H's & T's**

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| <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) |
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APPROVED:**Signature on File**

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