

Treatment Protocols**Date: 02/01/2021*****Cardiac Arrest (Suspected Non-Traumatic Origin) - Pediatric*****Policy #9070P****Pediatric BLS Standing Orders**

- Universal Patient Protocol
- High quality uninterrupted CPR (See **CPR Policy**)
- Apply AED and follow device instructions (**AED Policy**)
- **If patient had arrest prior to EMS arrival, provide 2 minutes of CPR prior to defibrillation**
- BVM per **BVM Policy**
 - Adult without an advanced airway: 30:2 (30 compressions to 2 breaths)
 - Pediatric without an advanced airway: 30:2 for single rescuer
 - 15:2 for two rescuers
 - Pediatric patients are generally classified for CPR as ≤ 55 kg (121 lbs) [Merck Manual]
- Provide airway support per **Airway Protocol**
- Continuous blood pressure, pulse oximetry, and ECG monitoring should be completed if available
- Continuous capnography should be completed if ALS available
- If Return Of Spontaneous Circulation (ROSC) occurs after any intervention, transport to closest Imperial County approved receiving STEMI center if within 90 minutes of transport location
- Administer Naloxone (Narcan) 0.1 mg/kg, max of 2 mg IN. May repeat up to three (3) times, q5min per **Poisoning Policy**
- Check blood glucose, treat hypoglycemia as noted in **Altered Mental Status Policy**

If applicable:

- **Determination of Death in the Field Policy**
- **Do Not Resuscitate Policy** - Do not delay care and/or CPR while confirmation is being made
- **Termination of Resuscitation Policy**

Pediatric LALS Standing Orders

- Establish IV
- NS 0.9% 20 mL/kg bolus IV/IO if suspected hypovolemia **BH** for repeat doses
- Administer Naloxone (Narcan) 0.1 mg/kg, max of 2 mg IV. May repeat up to three (3) times, q5min per **Poisoning Policy** for suspected opiate overdose
- Treat hypoglycemia as noted in **Altered Mental Status Policy** if BS is < 60 mg/dL pediatrics, < 45 mg/dL neonates

Pediatric ALS Standing Orders

- Establish IO
- Place on cardiac monitor, and EtCO₂ and treat accordingly
- Treat per rhythm
- EtCO₂ requires both continuous numeric and waveform monitoring on all cardiac arrests
- Defibrillate PRN (per **Defibrillation Policy**, and **Pediatric Drug Guide**)
 - Defibrillate initially at 2 J/kg and resume CPR immediately after shock delivered

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- Subsequent defibrillation at 4 J/kg and resume CPR immediately after shock delivered
- Consider a NS 0.9% 20 mL/kg bolus IV/IO if suspected hypovolemia
- If Return Of Spontaneous Circulation (ROSC) occurs after any intervention, obtain 12 Lead ECG and transport to closest Imperial County approved receiving STEMI center if within 90 minutes of transport location

Ventricular Fibrillation or Pulseless Ventricular Tachycardia

- Defibrillation at manufacturer's suggested values (or see **Pediatric Drug Guide**)
 - Defibrillate initially at 2 J/kg and resume CPR immediately after shock delivered
 - Subsequent defibrillation at 4 J/kg and resume CPR immediately after shock delivered
- Epinephrine (1:10,000) 0.01 mg/kg IV / IO (max 1 mg, see dosing chart), repeat every 3-5 minutes for the duration of the arrest
- Contact **BHP** contact for Amiodarone administration

Asystole

- Epinephrine (1:10,000) 0.01 mg/kg IV / IO (max 1 mg, see dosing chart), repeat every 3-5 minutes for the duration of the arrest

Pulseless Electrical Activity

Identify and treat any reversible causes:

- **Hypovolemia:**
 - Consider a 20 ml/kg fluid bolus, repeat as needed
- **Hypoxia:**
 - Ensure that the patient is adequately ventilated, utilizing an airway adjunct and bag valve mask with a supplemental oxygen supply
 - Ensure proper chest rise and fall
- **Hypothermia:**
 - Consider rewarming measures
 - Patients that are hypothermic can be unresponsive to pharmaceutical therapy and electrical therapy
- **Tension Pneumothorax:**
 - Perform pleural decompression
- Epinephrine (1:10,000) 0.01 mg/kg IV / IO (max 1 mg, see dosing chart), may repeat every 3-5 minutes for the duration of the arrest
- Treat any rhythm changes according to correct treatment protocol

Hypothermic Cardiac Arrest (Ex: If patient is found down in near-freezing temperatures, or was pulled from near-frozen water)

- If no pulse is present, start CPR
- If defibrillation is indicated, limit to one (1) shock until patient is warm

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- If patient presents with dysrhythmias, treat as appropriate
- If core temperature is less than 86°F, withhold IV medications until body temperature rises

Pediatric Base Hospital Orders

LALS

- BH: additional NS 0.9% 20 mL/kg IV

ALS

- **Suspected Hyperkalemia as source of cardiac arrest:**
 - Peaked T-waves, with possible widening of the QRS complex
 - BH: Calcium Chloride 10 mg/kg IV / IO, max dose 1 gm
 - BH: Sodium Bicarbonate 1 mEq/kg IV/ IO, max dose 50 mEq (1 amp)

Refractory VF/Pulseless VT

- BHP: Amiodarone 5 mg/kg (max 300 mg, see dosing chart) IV / IO

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)
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APPROVED:

Signature on File

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