

Subject: Treatment Guidelines – ALS
Cardiac Arrest - Pediatric

Associated Policies:

- I. Priorities:
 - A. Follow current AHA guidelines for chest compressions.
 - B. Minimize interruptions; resume compressions immediately after shocks, and rhythm checks.
 - C. Check pulses only when there is an organized rhythm.
 - D. Open and maintain Airway. Provide positive pressure ventilation (90% of pediatric arrests are respiratory in origin). Do not over ventilate.
 - E. Identify the dysrhythmia.
 - F. Assess quality of CPR with continuous waveform capnography when available.
 - G. Use patient's actual body weight if known or use body length tape with precalculated doses.

- II. Cardiac Arrest – Ventricular Fibrillation(VF)/ Ventricular Tachycardia(VT)
 - A. Pediatric Cardiopulmonary Arrest - Basic Therapy:

No spontaneous pulses or respiration, non-traumatic.

 1. Primary survey with basic life support and airway adjuncts.
 - a. Determine cardiac rhythm Defibrillate at 2 WS/kg
 - b. Defibrillate at 4 WS/kg for second and subsequent defibrillations.
 2. Ventilate with 100% oxygen alternate ventilations and compressions in 15:2 ratio. Do not over ventilate.
 3. IV/IO access.
 4. Epinephrine 1:10,000 – 0.01mg/kg IV/IO every 3-5 minutes.
 5. Amiodarone 5m/kg may repeat twice for refractory VF.
 6. Lidocaine 1mg/kg may repeat once.
 7. Consider Naloxone 0.1mg/kg IVP if indicated by history.
 8. Obtain blood glucose. Administer Glucose 10% or 25% if blood glucose is less than 60.
 7. Identify possible causes and consider:
 - a. Sodium Bicarbonate 1mEq/Kg IVP
 - b. Calcium Chloride 20-25mg/kg of 10% solution.
 - c. Magnesium Sulfate 10% 25-50mg/kg IV/IO for Torsades de Pointes or hypomagnesemia.

 - C. Asystole/ Pulseless Electrical Activity (PEA):
 1. Basic therapy for cardiopulmonary arrest.
 2. Provide quality, uninterrupted CPR.
 3. Check rhythm in more than one lead.
 4. Ventilate with 100% oxygen, alternate ventilations and compressions in 15-2 ratio. Do not over ventilate.

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5. Obtain IV/IO access.
6. Epinephrine 1:10,000 - 0.1mg/kg IV/IO, every 3-5 minutes.
7. Treat reversible causes.
Consider
 - a. Sodium Bicarbonate 1mEq/kg IVP/IO
 - b. Naloxone 0.01-0.1mg/kg IVP/IO
 - c. Fluid bolus 20cc/kg
8. Obtain blood glucose. Give Dextrose 10% or 25% only if indicated by blood sugar.

Approved: 

Approved as to Form: 