

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic**

**SMO: Pediatric Cardiac Arrest
Bradycardia & PEA**

Overview: When rhythm disturbances occur in children, they are usually the result of hypoxia, acidosis, hypotension and structural heart disease. Assessment and history to identify treatable causes can not be over emphasized.

INFORMATION NEEDED

- Patient age
- Medical history (history of cardiovascular disease, congenital heart defect, respiratory disease, trauma, diabetes)
- History of present event (complaints prior to arrest, possibility of choking, allergic reaction, etc.)
- Weight of patient (length based tape may be used)

OBJECTIVE FINDINGS

- Examine EKG rhythm for: frequency, regularity and width of complexes
- Identify and treat causes of asystole, bradycardia and PEA
 - [assume that respiratory failure and shock as most likely causes]:
 - Severe hypoxemia Tension pneumothorax
 - Severe acidosis Cardiac tamponade
 - Severe hypovolemia
 - Profound hypothermia

TREATMENT

- Assess patient and confirm pulselessness
- Start CPR, using pediatric standards
- Assure adequacy of ventilations and compressions
- Obtain patient history
- Routine Medical Care (RMC)
- Standard cardiac arrest management: ABC's, CPR, intubation, ventilate with 100% oxygen
- IV or IO access
- Epinephrine:**
 - IV/IO: (1:10,000) 0.01 mg/kg (0.1 ml/kg)
 - ET: (1:1000) 0.1 mg/kg (0.1 ml/kg)
 - Repeat q 3-5 min.
- Atropine:**
 - IV/IO: 0.02 mg/kg
 - Minimum dose: 0.1 mg
 - May be repeated once
- IV fluid challenge of 20 ml/kg NS if suspicion of hypovolemia, repeat prn

7/04

Reviewed:

Revised:

EMS/ Region1 SMOs

___ Consider cardiac pacing

Documentation of adherence to protocol:

___ Respiratory status: If inadequate, BLS airway maneuvers, assessment of BLS airway maneuvers prior to ALS airway maneuvers

___ Epinephrine given

Medical Control Contact Criteria

___ High dose IV/IO Epinephrine (1:1,000) 0.1 mg/kg, if needed

PRECAUTIONS AND COMMENTS

___ **Epinephrine** via ETT is x 10 the first IV/IO dose and should be diluted if necessary to 3 ml total volume with NS for an infant, and 5 ml total volume for a small child.

___ Drugs administered via ETT should be delivered and the patient should be ventilated several times after giving the drugs before starting chest compressions again.

___ Use length base resuscitation tape to estimate child weight in order to calculate fluid boluses, drug doses and estimate tube sizes