History

- Respiratory arrest
- Cardiac arrest

Signs/Symptoms

Return of pulse

Differential

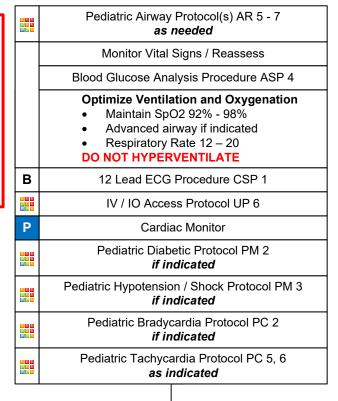
Continue to address specific differentials associated with the original dysrhythmia

Transport Destination Decision

Post-resuscitation patient is medically complex.

Consider facility capabilities:

- Pediatric ICU service
- Pediatric Cardiology service
- Pediatric Neurology service
- **Targeted Temperature** Management



Hypotension Age Based

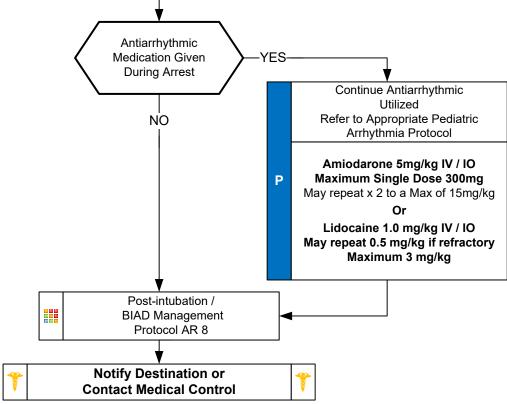
0 - 31 Days < 60 mmHq

1 Month to 1 Year < 70 mmHg

> than 1 Year < 70 + (2 x age) mmHg

Arrhythmias are common and usually self limiting after ROSC

If Arrhythmia Persists follow Rhythm Appropriate Protocol



Pediatric Cardiac Protocol Section

Pediatric Post Resuscitation



** Refer to Length Based Medication Tape for Medication Doses IF pediatric patients weight is unknown **

Push-Dose Vasopressor Agent - Procedure

1. Indications

- a. Peri-intubation hypotension
- b. Post-arrest (post-ROSC) hypotension
- c. Hypotension requiring initiation of vasopressor drip prior to drip setup
- d. Unstable bradycardia (as a supplement to other therapy)

2. Instructions

- a. Draw up 1mL of 1:10,000 epinephrine
- b. Waste 1mL of saline from a 10mL saline flush
- c. Add the 1mL of epinephrine to the remaining 9mL of saline
 - i. This yields epinephrine in a concentration of 10mcg/mL
- d. Place a medication added label on this syringe to identify it as a vasopressor
- e. Administer 1mcg/kg (0.1mL/kg) every 2 minutes as needed to achieve desired blood pressure or heart rate and/or max 10mcg (1mL)

Pearls

- * Recommended Exam: Mental Status, Neck, Skin, Lungs, Heart, Abdomen, Extremities, Neuro
- * Goals of care are to preserve neurologic function, prevent secondary organ damage, treat the underlying cause of illness, and optimize prehospital care. Frequent reassessment is necessary.
- * Hyperventilation is a significant cause of hypotension and recurrence of cardiac arrest in the post resuscitation phase and must be avoided. Titrate FiO₂ to maintain SpO₂ of 92 98%.
- * Use length-based or weight-based pediatric resuscitation system for medication, equipment, cardioversion, and defibrillation guidance. Pediatric paddles should be used in children < 10 kg.
- * Pain/sedation:
 - Patients requiring advanced airways and ventilation commonly experience pain and anxiety.
 - Unrelieved pain can lead to increased catecholamine release, ischemia, immunosuppression, and prolonged hospitalization.
 - Ventilated patients cannot communicate pain / anxiety and providers are poor at recognizing pain / anxiety.
 - Vital signs such has tachycardia and / or hypertension can provide clues to inadequate sedation, however they both are not always reliable indicators of patient's lack of adequate sedation.
 - Pain must be addressed first, before anxiety. Opioids are typically the first line agents before benzodiazepines. Ketamine is also a reasonable first choice agent.
- * Ventilator / Ventilation strategies:
 - Tailored to individual patient presentations. Medical Control can indicate different strategies above.
 - In general ventilation with BVM should cause chest rise. With mechanical ventilation a reasonable tidal volume should be about 6 mL/kg and peak pressures should be < 30 cmH20.
 - Continuous pulse oximetry and capnography should be maintained during transport for monitoring.
 - Head of bed should be maintained at least 10 20 degrees of elevation when possible to decrease aspiration risk.
- * EtCO2 Monitoring:
 - Initial End tidal CO2 may be elevated immediately post-resuscitation, but will usually normalize.
 - Goal is 35 45 mmHg but DO NOT hyperventilation to achieve.
 - EtCO2 should be continually monitored with advanced airway in place.
- * Administer resuscitation fluids and vasopressor agents to maintain SBP at targets listed on page 1. This table represents minimal SBP targets.
- * Targeted Temperature Management is recommended in pediatrics, but prehospital use is not associated with improved outcomes. Transport to facility capable of intensive pediatric care.
- * Consider transport to facility capable of managing the post-arrest patient including hypothermia therapy, cardiology / cardiac catheterization, intensive care service, and neurology services.
- * The condition of post-resuscitation patients fluctuates rapidly and continuously, and they require close monitoring. Appropriate post-resuscitation management may best be planned in consultation with Medical Control.