**Pediatric Bradycardia**

For any bradycardic rhythm <60 bpm

### History
- Past medical history
- Heart transplant
- Medications
  - Beta blockers
  - Calcium channel blockers
  - Clonidine
  - Digoxin
  - Pacemaker

### Signs and Symptoms
- Heart rate < 60 with associated hypotension, acute
- Altered mental status, chest pain, acute CHF, seizures, syncope or shock secondary to bradycardia
- Age dependent hypotension
- Chest pain
- Respiratory distress
- Hypotension or shock
- Altered mental status
- Syncope

### Differential
- Airway obstruction/respiratory disease
- Acute myocardial infarction
- Pacemaker failure
- Hypothermia
- Sinus bradycardia
- Athletes
- Head injury (elevated ICP) or stroke
- Spinal cord lesion
- Sick sinus syndrome
- AV blocks (e.g., 1°, 2° or 3°)
- Overdose

### Pearls
- The majority of pediatric bradycardia is due to airway problems.
- Hypoglycemia, severe dehydration and narcotic effects may produce bradycardia.
- Most maternal medications pass through breast milk to the infant. Obtain medication use and history of nursing mother.

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**HR < 60 and symptomatic:** Hypoperfusion, hypotension, respiratory difficulty or altered mental status

- Yes

### P
- Cardiac monitor
- Establish IV/IO

### E
- High flow oxygen via non-rebreather mask or ventilate with BVM
- If HR remains < 60 with instability after O₂ and ventilation, begin chest compressions (15:2 ratio)
  - 1.5 inches for infants; 2 inches for children

### P
- If HR remains < 60 with instability after CPR
  - Epinephrine (1:10,000)
  - Use length-based tape; refer to dosing guide
  - Consider, 12-Lead ECG

- For increased vagal tone or primary AV block
  - Consider, Atropine
  - Use length-based tape; refer to dosing guide
  - Consider, Normal Saline bolus
  - Use length-based tape; refer to dosing guide
  - May repeat x2

- EtCO₂ monitoring (if available)

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**Notify receiving facility. Consider Base Hospital for medical direction**