

# Pediatric Bradycardia

## History

- **SAMPLE**
- Foreign body exposure
- Respiratory distress or arrest
- Apnea
- Possible toxic or poison exposure
- Congenital disease
- Medication (maternal or infant)

## Signs and Symptoms


- Decreased heart rate
- Delayed capillary refill or cyanosis
- Mottled, cool skin
- Hypotension or arrest
- Altered level of consciousness

## Differential

- Respiratory failure
- Foreign body
- Secretions
- Infection (croup, epiglottitis)
- Hypovolemia (dehydration)
- Congenital heart disease
- Trauma
- Tension pneumothorax
- Hypothermia
- Toxin or medication
- Hypoglycemia

 **Universal Patient Care Protocol**  
 **Routine Standard of Care**

 **Pediatric Airway Protocol**


 Poor perfusion  
 Decreased blood pressure  
 Respiratory insufficiency


No

 **Monitor and Reassess**

**Consider**

**Dextrose**

 25% 2-10ml/kg IV/IO  
 10% 2-10ml/kg IV/IO

 **Glucagon IM (If no IV)**  
 (<20kg=0.5mg) (>20kg=1mg)


 **20ml/kg Fluid Bolus**


 **Naloxone**


Pulse?

 **IV Protocol**

 **20ml/kg Fluid Bolus**

 Heart rate in infant < 60 ?  
 CPR

 **Epinephrine 1:10,000 IV/IO**  
 (0.01mg/kg)


 **Atropine IV/IO**  
 (0.02mg/kg)

 **Reassess**

Pulseless?

 **Pulseless Arrest Protocol**

Pediatric & OB Protocols

 Consider **External Cardiac Pacing**  
 Consider **Glucagon** for suspected Beta-Blocker Toxicity  
 Consider **Calcium** for Calcium Channel Blocker Toxicity

## Pearls

- **Recommended Exam: Mental Status, HEENT, Skin, Heart, Lungs, Abdomen, Back, Extremities, Neuro**
- **Use Broselow-Luten Tape for Drug Dosages.**
- Infant = < 1 year of age
- The majority of pediatric arrests are due to airway problems.
- Most maternal medications pass through breast milk to the infant.
- Hypoglycemia, severe dehydration and narcotic effects may produce bradycardia.
- Pediatric patients requiring external transcutaneous pacing require the use of pads appropriate for pediatric patients per the manufacturers guidelines.
- Minimum Atropine dose is 0.1 mg IV. Max single dose is .5mg

## Protocol 38

This protocol has approved by the Survival Flight Medical Director as of April 2014

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