



# Bradycardia



## Medical (Pediatric)

### CRITERIA

Patient with sustained ventricular rate less than 60 BPM, and one or more of the following signs or symptoms:

- Hypotension
- Signs of shock
- Altered mental status
- Pulmonary Edema
- Chest pain
- Dyspnea

### PROTOCOL

<u>Stable Bradycardia</u>		
<b>EMR</b>	Follow <i>General – Universal Patient Care/Initial Patient Contact Protocol</i> .	<b>EMR</b>
<b>EMR</b>	<b>Infant or child less than 8 years:</b> heart rate less than 60 with signs/symptoms of poor perfusion, perform chest compressions.	<b>EMR</b>
<b>I</b>	Monitor cardiac status and place external pacer if available.	<b>I</b>
<u>Unstable Bradycardia</u>		
<b>[I]</b>	Consider pacing.	<b>[I]</b>
<b>[A]</b>	If no response to previous treatments, consider: <ul style="list-style-type: none"> <li>• <b>Suspected hypovolemia –0.9% Normal Saline 20 mL/kg fluid bolus,</b> continuously reassessing need for further fluid administration.</li> </ul>	<b>[A]</b>
<b>I</b>	Administer <b>Epinephrine 1:10,000 0.01 mg/kg (0.1 mL/kg) IV/IO.</b>	<b>I</b>
<b>[I]</b>	Administer <b>Atropine Sulfate 0.02 mg/kg IV/IO to a maximum of 0.5 mg single dose</b> which may be repeated once in 5 minutes <ul style="list-style-type: none"> <li>• <b>Minimum dose 0.1 mg</b></li> <li>• Child (1-12 years of age)<b>maximum total 1 mg</b></li> <li>• Adolescent (greater than 12 years of age) <b>maximum total 3 mg</b></li> </ul>	<b>[I]</b>
<b>MC</b>	Contact Medical Control if bradycardia is refractory to all other treatments.	<b>MC</b>

### PEARLS

🔔 If there is no **Epinephrine 1:10,000 preloaded syringe**, combine in a **10 mL syringe: 1 mg (1 mL) of Epinephrine 1:1,000 with 0.9% Normal Saline 9 mL**. This creates the same as an **Epinephrine 1:10,000 preloaded syringe**.

🔔 **Atropine Sulfate** is contraindicated in neonates and infants.

🔔 In pediatrics who are still breastfeeding, consider the mother’s medical history. Consider the possibility of toxic exposure or accidental overdose (e.g. medications *see Overdose and Poisons protocol*).

Pediatric Age Guidelines Chart	
Newborn	Up to 24 hours following birth
Neonates	Up to 28 days following birth
Depending upon the protocol, specific age guidelines may vary including but not limited to: Burns, Altered Level of Consciousness and Trauma	