Pediatric Bradycardia With a Pulse Algorithm

Patient with bradycardia

Cardiopulmonary compromise?
• Acutely altered mental status
• Signs of shock
• Hypotension

No

Assessment and support
• Maintain patent airway
• Assist breathing with positive pressure ventilation and oxygen as necessary
• Cardiac monitor to identify rhythm; monitor pulse, BP, and oximetry

Support ABCs
• Consider oxygen
• Observe
• 12-Lead ECG
• Identify and treat underlying causes

Yes

Start CPR if HR <60/min despite oxygenation and ventilation.

Bradycardia persists?

No

Yes

Check pulse every 2 minutes. Pulse present?

Go to Pediatric Cardiac Arrest Algorithm.

Yes

No

Continue CPR if HR <60/min
• IV/IO access
• Epinephrine
• Atropine for increased vagal tone or primary AV block
• Consider transthoracic/transvenous pacing
• Identify and treat underlying causes

Doses/Details

Epinephrine IV/IO dose:
0.01 mg/kg (0.1 mL/kg of the 0.1 mg/mL concentration). Repeat every 3-5 minutes. If IV/IO access not available but endotracheal (ET) tube in place, may give ET dose: 0.1 mg/kg (0.1 mL/kg of the 1 mg/mL concentration).

Atropine IV/IO dose:
0.02 mg/kg. May repeat once. Minimum dose 0.1 mg and maximum single dose 0.5 mg.

Possible Causes
• Hypothermia
• Hypoxia
• Medications

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