f. Consider the following additional therapies if bradycardia and symptoms or hemodynamic instability continue:
   i. Atropine 1 mg IV q 3–5 minutes (maximum total dose of 3 mg)
   ii. Vasopressor medications (in order of preference)
      1. Epinephrine IV drip 0.02–0.2 mcg/kg/min titrated to a MAP greater than 65 mmHg
      OR
      2. Epinephrine by push dose (dilute boluses): for example, prepare 10 mcg/mL by adding 1 mL of 0.1 mg/mL epinephrine to 9 mL of normal saline, then administer 10–20 mcg boluses (1–2 mL) q 2 minutes titrated MAP greater than 65 mmHg
      OR
      3. Norepinephrine 0.02–0.4 mcg/kg/minute IV titrated to a MAP greater than 65 mmHg
   iii. Transcutaneous Pacing – If pacing is performed, consider sedation or pain control

2. **Pediatric Management**

Treatment is only indicated for patients who are symptomatic (pale/cyanotic, diaphoretic, altered mental status, hypoxic)

a. For infants and newborns, initiate chest compressions for heart rate less than 60 BPM and signs of poor perfusion (altered mental status, hypoxia, hypotension, weak pulse, delayed capillary refill, cyanosis)
b. Manage airway and assist ventilations as necessary with minimally interrupted chest compressions using a compression-to-ventilation ratio 15:2 (30:2 if single clinician is present)
c. Administer oxygen as appropriate with a target of achieving 94–98% saturation
d. Initiate monitoring and perform 12-lead EKG
e. Establish IV access
f. Check blood glucose and treat hypoglycemia per the Hypoglycemia Guideline
g. Consider the following additional therapies if bradycardia and symptoms or hemodynamic instability continue:
   i. Epinephrine by push dose (dilute boluses). For example, prepare 10 mcg/mL by adding 1 mL of 0.1 mg/mL epinephrine to 9 mL of normal saline, then administer 0.01 mg/kg (0.1 mL/kg) maximum single dose 10 mcg (1 mL) q 3–5 minutes titrated to MAP greater than 65 mmHg
   ii. Also consider atropine 0.01–0.02 mg/kg IV with minimum dose of 0.1 mg if increased vagal tone or cholinergic drug toxicity to maximum initial dose of 0.5 mg (maximum total dose of 3 mg)
   iii. Transcutaneous pacing: If pacing is performed, consider sedation or pain control
   iv. Epinephrine may be used for bradycardia and poor perfusion unresponsive to ventilation and oxygenation
      1. It is reasonable to administer atropine for bradycardia caused by increased vagal tone or cholinergic drug toxicity

Patient Safety Considerations

If pacing is performed, consider sedation or pain control