Base Hospital Contact: Required for all patients with symptomatic bradycardia

1. Assess patient’s airway and initiate basic and/or advanced airway maneuvers prn \((MCG 1302)\)

2. If foreign body suspected, perform direct laryngoscopy for foreign body removal and treat in conjunction with \(TP 1234-P, Airway Obstruction\)

3. Administer Oxygen prn \((MCG 1302)\)
   High-flow Oxygen 15L/min for poor perfusion

4. Initiate cardiac monitoring \((MCG 1308)\)
   Perform 12-lead ECG if dysrhythmia suspected prn

5. For poor perfusion:
   Begin bag-mask-ventilation (BMV) \(1\ 2\)

6. Establish vascular access prn \((MCG 1375)\)

7. For persistent poor perfusion:
   Begin chest compressions if bradycardia \(< 60\) bpm persists
   Epinephrine \((0.1\text{mg}/1\text{mL}) 0.01\text{mg/kg slow IV/IO push}\), dose per \(MCG 1309\)
   Repeat every 3-5 min
   CONTACT BASE for Physician Consultation concurrent with above treatment

8. If suspected AV Block or patient unresponsive to epinephrine: \(1\)
   Atropine \((0.1\text{mg/mL}) 0.02\text{mg/kg IV/IO push}\), dose per \(MCG 1309\)
   May repeat x1 in 5 min

9. Consider Transcutaneous Pacing (TCP) for HR \(\leq 40\) with continued poor perfusion \((MCG 1365)\)
   For infants and young children place pacing pads anterior and posterior chest; for older children place as per adult patients \(4\)
   Recommended initial settings: rate 70bpm/0mA, slowly increase mAs until capture is achieved
   CONTACT BASE concurrent with initiation of TCP

   If TCP will be utilized for the awake patient, consider sedation and analgesia
   For sedation:
   Midazolam \((5\text{mg/mL}) 0.1\text{mg/kg IM/IN/IV/IO}\), dose per \(MCG 1309\)
   Repeat x1 in 2 min prn, maximum two doses prior to Base contact
   For pain management: refer to \(MCG 1345, Pain Management\)
   Dose per \(MCG 1309\)

10. For nausea or vomiting in patients \(\geq 4\) years old:
    Ondansetron 4mg ODT

11. For signs of poor perfusion with HR \(> 40\):
    Normal Saline 20mL/kg IV/IO rapid infusion per \(MCG 1309\)

12. For suspected overdose, treat in conjunction with \(TP 1241-P, Overdose/Poisoning/Ingestion\)
SPECIAL CONSIDERATIONS

❶ Management of oxygenation and ventilation is most important aspect of treatment of bradycardia in children. Squeeze the bag mask device just until chest rise is initiated and then release; state “Squeeze, Release, Release” to prevent hyperventilation.

❷ Young athletes, typically adolescents may have normal resting heart rates < 60 bpm, treat only if signs of poor perfusion.

❸ Potential causes of unresponsiveness to epinephrine in children include increased intracranial pressure, beta blocker/calcium channel overdose, hypothyroidism, infection, congenital heart disease, and sleep apnea where administration of atropine could be of theoretical benefit.

❹ There are minimal data on the use of TCP in infants and children in the out-of-hospital setting. Patients unresponsive to BMV and epinephrine may be candidates. Base Physician consultation is recommended in these patients.