

BRADYCARDIA (Symptomatic)

UPDATED 4/2025

ALL PROVIDERS / EMT

- ☐ Focused history and physical exam
 - Assess for signs of poor perfusion, hypotension or other signs of shock, altered mental status, chest pain, or acute heart failure.
 - Obtain a blood glucose level.
- ☐ Continuous ETCO₂, 12 lead ECG, pulse oximetry monitoring, and blood pressure monitoring.
- ☐ **Treatment Plan**
 - Only treat bradycardia **IF** the patient is unstable (hypotension or signs of poor perfusion).
 - If patient is a newborn, follow the *Newborn Resuscitation Guideline*.
 - Identify and treat the underlying cause, if possible.
 - Maintain airway - assist with breathing, and provide oxygen as necessary
 - Ensure patient warmth.
- ☐ **Pediatric patient** (<8-year-old)
 - Aggressive oxygenation with high flow oxygen and assisted ventilations with a BVM, as indicated.
 - Persistent heart rate <60/min and signs of poor perfusion following aggressive oxygenation and ventilation: **BEGIN CHEST COMPRESSIONS**
- ☐ **Key Considerations**
 - In pregnant patients of >20 weeks' gestation: place wedge-shaped cushion or multiple pillows under patient's right hip to displace uterus to the left, off the vena cava.
 - Pediatric lowest acceptable systolic blood pressures
 - Birth to 1 month = 60mmHg
 - 1 month to 1 year = 70mmHg
 - 1 year to 10 years = 70mmHg + (age x 2)
 - Over 10 years = 90mmHg.

ADULT

PEDIATRIC

Pediatric weight-based dosing should not exceed Adult dosing.

AEMT

AEMT

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| <ul style="list-style-type: none"><input type="checkbox"/> Vascular access and fluid therapy<input type="checkbox"/> Atropine - 1 mg IV/IO<ul style="list-style-type: none">• Repeat as needed every 3 minutes• Maximum total dose of 3 mg | <ul style="list-style-type: none"><input type="checkbox"/> Vascular access and fluid therapy<input type="checkbox"/> Atropine - 0.02 mg/kg IV/IO<ul style="list-style-type: none">• Maximum single dose of 0.5 mg• Repeat Atropine every 3-5 minutes as needed until Max 1 mg for child and 3 mg for adolescents. |
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SYMPTOMATIC BRADYCARDIA

- ☐ **Transcutaneous pacing (TCP)** at an initial rate of 80 beats per minute if the patient does not respond to medications. Ensure mechanical and electrical capture.
 - ☐ Consider pretreating with a benzodiazepine and analgesic **ONCE** via IV/IO:
 - **Fentanyl - 50-100mcg**
 - **Midazolam - 2.5mg**
 - OR
 - **Fentanyl - 50-100mcg**
 - **Lorazepam - 1mg**
 - ☐ **DO NOT DELAY TCP FOR COMFORT CARE**
- ☐ **Epinephrine drip 2–10 mcg/min IV/IO** infusion. Titrate to maintain a SBP of 90 mmHg or MAP of 65.
- ☐ **Push Dose Epinephrine - 10mcg** as needed to maintain a SBP of 90 mmHg or MAP of 65.
- ☐ **Norepinephrine - 0.01-3 mcg/kg/min IV/IO.** Titrate to maintain a SBP of 90 mmHg or MAP of 65.
- ☒ **Contact OLMC for dosages above those provided or use of medication NOT fitting the guideline parameters.**

SYMPTOMATIC BRADYCARDIA

- ☐ **Transcutaneous pacing (TCP)** at an initial rate of 100 beats per minute, if the patient does not respond to medications. Ensure mechanical and electrical capture.
 - Consider pretreatment with a benzodiazepine and analgesic **ONCE** via IV/IO:
 - **Fentanyl - 1mcg/kg**
 - **Midazolam - 0.1mg/kg**
 - OR
 - **Fentanyl - 1mcg/kg**
 - **Lorazepam - 0.05mg/kg**
 - **DO NOT DELAY TCP FOR COMFORT CARE**
- ☐ **Epinephrine drip 0.1-1mcg/kg/min IV/IO** infusion. Titrate to maintain an appropriate SBP for age.
- ☐ **Push Dose Epinephrine 1mcg/kg IV/IO** as needed to maintain an appropriate SBP for age.
- ☐ **Norepinephrine 0.05-1mcg/kg/min IV/IO** infusion. Titrate to maintain an appropriate SBP
- ☒ **Contact OLMC for dosages above those provided or use of medication NOT fitting the guideline parameters**