



**Bradycardia With Pulses**

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- **Symptomatic bradycardia exists clinically when the following 3 criteria are present:**  
1) The HR is slow (<60/min), 2) The pt has symptoms & 3) The symptoms are due to the slow HR.
- **Bradycardia that causes symptoms is typically <50/min. The pt’s cardiac rhythm should be interpreted in the context of symptoms, & atropine/TCP utilized only for symptomatic bradycardia.**

**BLS**

- Manage airway & assist ventilations as necessary
- Assess V/S, including SpO<sub>2</sub> - reassess V/S every 3 - 5 min if possible
- O<sub>2</sub> at appropriate rate if hypoxemic (SpO<sub>2</sub> <94%), short of breath, or signs of heart failure/shock

**ALS**

- Cardiac monitor, 12-lead ECG at appropriate time (do not delay therapy)
- IV/IO NS at appropriate time (may bolus up to 1000 mL for hypotension)

**Persistent bradycardia with SBP <90 & any of the following signs/symptoms of hypoperfusion?**

- Acutely altered mental status
- Signs of shock
- Ischemic chest discomfort
- Acute heart failure

YES →

NO ↓

- Monitor & reassess
- Contact base/modified base hospital for consultation if necessary

**Transcutaneous Pacing Sedation/Pain Control**

- For pts receiving transcutaneous pacing in need of sedation/pain control, consider one of the following:
  - **Midazolam:** 2.5 - 5 mg IV/IO; **OR**
  - **Fentanyl:** 25 - 50 mcg IV/IO
- May repeat dose x 1 after 5 mins
- Fentanyl is preferred for pts with chest pain or suspected MI
- Continuous EtCO<sub>2</sub> monitoring required for pts receiving midazolam or fentanyl

Clinical judgement shall be utilized to determine the appropriate dose of midazolam or fentanyl for pts requiring sedation/pain control

**Atropine**

- 1 mg IV/IO
- May repeat every 3 - 5 mins (max total: 3 mg)
- Should not be used for wide-complex rhythms or for second-degree Type II or third-degree heart blocks

**Wide-complex rhythms, second-degree Type II or third-degree heart blocks, or atropine ineffective:**

**Transcutaneous Pacing (TCP)**

- Set initial rate at 60/minute
- Set initial current at 10 mA and increase by 10 mA increments while assessing for mechanical capture
- Once mechanical capture is achieved, adjust rate based on clinical response - most pts will improve with a rate of 60 - 70/min if the symptoms are primarily due to bradycardia
- Monitor/re-evaluate frequently, increase current as necessary to maintain mechanical capture.
- Consider sedation/pain control as needed\*

**If SBP remains <90 after atropine/TCP:**

**Push-Dose Epinephrine**

- Eject 1 mL NS from a 10 mL pre-load flush syringe
- Draw up 1 mL epinephrine 1:10,000 concentration and gently mix
- Administer 1 mL IV/IO push every 1 - 5 mins
- Titrate to maintain SBP >90