# 3.1A Bradycardia – Adult



## EMT/ADVANCED EMT STANDING ORDERS

E/A

- Routine Patient Care.
- Consider the underlying causes of bradycardia (e.g., acute coronary syndrome, hyperkalemia, hypoxia, hypothermia).
- 12 Lead ECG if available.

## PARAMEDIC STANDING ORDERS

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**If symptomatic and hemodynamically unstable:**

- Consider atropine 0.5mg IV every 3 – 5 minutes to a total of 3mg.
- If atropine is ineffective:
  - Consider transcutaneous pacing.
  - Administer procedural sedation prior to or during transcutaneous pacing, if feasible:
    - Midazolam 2.5mg IV/IN, may repeat once in 5 minutes; or 5 mg IM, may repeat once in 10 minutes, **OR**
    - Lorazepam 1 mg IV, may repeat once in 5 minutes; or 2mg IM, may repeat once in 10 minutes, **OR**
    - Diazepam 2mg IV; may repeat once in 5 minutes.
- Epinephrine infusion (Dilute epinephrine 1mg in 1000 mL 0.9% normal saline for 1 microgram/mL) 2 -10 micrograms/minute via pump, **OR**
- Norepinephrine (4mg in 1000 mL 0.9% normal saline for 4 microgram/mL) 1 - 30 micrograms/minute via pump, **OR**
- Dopamine infusion 2 – 10 micrograms/kg/minute, **OR**
- **Contact Medical Control** for expert consultation.

**Other Causes:**

- For symptomatic beta blocker or calcium channel blocker overdose, consider glucagon 5mg IV over 3 – 5 minutes.
- For suspected hyperkalemia with ECG changes or symptomatic calcium channel blocker overdose consider:
  - Calcium gluconate 2 grams IV over 5 minutes, with continuous cardiac monitoring **OR**
  - Calcium chloride (10% solution) 1 gram IV over 5 minutes, with continuous cardiac monitoring.

For calcium chloride administration, ensure IV patency and do not exceed 1 mL per minute.

PEARLS:

- Hyperkalemia should be suspected in dialysis or renal failure patients with ECG changes such as tall peaked T waves, loss of P waves, QRS widening and bradycardia.