Adult Bradycardia With a Pulse Algorithm

1. Assess appropriateness for clinical condition. Heart rate typically <50/min if bradyarrhythmia.

2. Identify and treat underlying cause
   - Maintain patent airway; assist breathing as necessary
   - Oxygen (if hypoxemic)
   - Cardiac monitor to identify rhythm; monitor blood pressure and oximetry
   - IV access
   - 12-Lead ECG if available; don’t delay therapy

3. Persistent bradyarrhythmia causing:
   - Hypotension?
   - Acutely altered mental status?
   - Signs of shock?
   - Ischemic chest discomfort?
   - Acute heart failure?

4. Monitor and observe
   - No

5. Yes
   - Atropine
     - If atropine ineffective:
       - Transcutaneous pacing
       - Dopamine infusion
       - Epinephrine infusion

6. Consider:
   - Expert consultation
   - Transvenous pacing

Doses/Details

- **Atropine IV dose:**
  - First dose: 0.5 mg bolus.
  - Repeat every 3-5 minutes.
  - Maximum: 3 mg.

- **Dopamine IV infusion:**
  - Usual infusion rate is 2-20 mcg/kg per minute.
  - Titrate to patient response; taper slowly.

- **Epinephrine IV infusion:**
  - 2-10 mcg per minute infusion.
  - Titrate to patient response.

© 2015 American Heart Association