### Indication

- **Symptomatic Bradycardia**: Heart rate < 60 with serious signs and symptoms. Patient must demonstrate a systolic blood pressure < 90 mmHg and one or more of the following:
  - Chest pain.
  - Shortness of breath.
  - Pulmonary Edema.

### BLS

- Follow **General Medical Care M-01**.
- Identify and Treat Underlying Cause.
- **12-Lead ECG BP-03**. (Do not delay therapy for 12-Lead ECG).

### ALS

- **Moderate Symptomatic Bradycardia**: Alert with serious signs and symptoms:
  - **Atropine**: *Adult*: 0.5 mg IV/IO. Repeat every 5 minutes, MAX total dose of 3 mg.
  - If patient doesn’t respond to atropine or there is difficulty gaining IV/IO access:
    - **External Cardiac Pacing AP-07**.
      - Consider **Sedation AP-14** if patient is awake and aware.
  - If patient doesn’t respond to atropine and external cardiac pacing:
    - **Push-Dose Epinephrine**: *Adult*: 10 mcg/mL IV/IO every 1-3 minutes. Repeat as necessary to maintain a systolic blood pressure > 90 mmHg.

- **Severe Symptomatic Bradycardia**: Altered mental status with serious signs and symptoms:
  - **External Cardiac Pacing AP-07** should be first line therapy for treating severe symptomatic bradycardia.
    - Consider **Sedation AP-14** if patient is awake and aware.
  - If patient doesn’t respond to external cardiac pacing:
    - **Push-Dose Epinephrine**: *Adult*: 10 mcg/ML IV/IO every 1-3 minutes. Repeat as necessary to maintain a systolic blood pressure > 90 mmHg.

### Key Concepts

- Begin immediate transport if unable to establish IV/IO; continue treatment while transporting.
- Bradycardia is often seen in patients with STEMI or ischemia. 12-lead should be obtained.
- Sedation prior to starting pacing is not required. Critical patients should be paced first.
- Sedation in pacing is to decrease discomfort, not to decrease level of consciousness.
- Atropine is not often effective for wide-QRS third degree block and in heart-transplant patients.