

## USE OF EXTERNAL PACE MAKERS

**INDICATIONS:** Symptomatic bradycardia not responding to **atropine**.

**PROCEDURE:**

1. Perform CPR, as indicated.
2. Obtain rhythm and baseline vitals.
3. Administer high flow **O<sub>2</sub>**.
4. Administer atropine per appropriate arrhythmia protocol.
5. Attach pacing electrodes.
  - I. Select *demand operation*, if stand-alone pacemaker.
  - II. Adjust EKG gain to sense intrinsic QRS complexes.
  - III. Adult pacing rate 80-100 Pediatric pacing rate 100-110
  - IV. Set current (start low and increase until capture).
6. Activate pacer.
  - I. At capture, increase current to 2 ma above capture threshold.
  - II. EKG capture: change in QRS, wide QRS.
  - III. Mechanical capture: pulse, rise in BP, increase in LOC, improved color, temperature, etc.
7. Document with rhythm strips.
8. If patient is conscious, assess patient comfort. Consider administering 1-2 mg of **midazolam (Versed®)** IV/IO q 3 minutes, up to a maximum dose of 6 mg.
9. If patient is unconscious, assess BP and pulse.
10. If no improvement with pacer initiate drug therapy per **Bradycardia** protocol.
11. If no response to pacer or ACLS drugs, contact receiving physician.

**DOCUMENTATION:**

- ✓ Date, time, baseline rhythm, pacing rhythm strips
- ✓ Current required to capture
- ✓ Pacing rate and mode selected
- ✓ Patient response to pacing: electrical/mechanical
- ✓ Medications used
- ✓ Date and time pacing terminated