EXTERNAL CARDIAC PACING PROCEDURE
ALWAYS USE STANDARD PRECAUTIONS

INDICATION
- Symptomatic bradycardia which may include: HR < 50 with decreasing perfusion, chest pain, shortness of breath, decreased LOC, pulmonary congestion or congestive heart failure

**PHYSICIAN CONSULT**
- Concomitant administration of opioids (Morphine and Fentanyl) and Midazolam
- If SBP < 80, obtain physician consult for Push-dose Epinephrine

CRITICAL INFORMATION
- If patient is unstable, do not delay pacing for IV access

EQUIPMENT
- Cardiac monitor/defibrillator/external pacemaker
- Pacing capable electrode pads

PROCEDURE
- ALS RMC
- If patient is conscious, administer Midazolam 1 mg slow IV/IO. May repeat 1 mg every 3 minutes to desired degree of sedation. Maximum dose = 0.05 mg/kg.
- If tolerated, position patient supine, applying pacing electrodes to bare chest according to manufacturers recommendations (anterior/posterior or sternal/apex).
- Confirm and record ECG.
- Set pacing rate at 60, turn on pacing module, and confirm pacer activity on monitor. May increase rate to 80.
- Increase mA until capture occurs or maximum output is reached.
- Once capture is confirmed, increase output by 10%
- Confirm pulses with paced rhythm.
- Monitor vital signs and need for further sedatives or pain control.
- If SBP < 90, consider NS 250 ml bolus IV/IO
- **Opioids** for pain management if concomitant administration of Midazolam
- **Physician consult for Push-dose Epinephrine** for SBP < 80
  - Mix 1mL Epinephrine (0.1mg/mL concentration) with 9mL Normal Saline in a 10mL syringe
  - Administer Push-dose Epinephrine 1mL IV/IO every 3-5 minutes
  - Titrate to maintain SBP >80mmHg
  - Monitor blood pressure every five minutes

DOCUMENTATION
- mA needed for capture
- Time pacing started/discontinued

RELATED POLICIES/PROCEDURES
- Bradydysrhythmia C 4
- Adult Sedation ATG 3
- Adult Pain Management ATG 2