

EXTERNAL CARDIAC PACING PROCEDURE

Indications

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

Procedure Preparation

- ALS RMC
- If tolerated, position patient supine, applying pacing electrodes to bare chest according to manufacturers recommendations (anterior/posterior or sternal/apex)
- Confirm and record ECG

Equipment

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

If patient is conscious

- Administer **Midazolam** 1mg slow IV/IO
- **MR q3 min** to desired degree of sedation
- **Max dose:** 0.05mg/kg

Procedure

- 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** 250ml bolus IV/IO

Critical Information

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

If SBP <80

- **PHYSICIAN CONSULT** for **Push-dose Epinephrine**
- Mix 1ml Epinephrine (0.1mg/ml concentration) with 9ml NS in a 10ml syringe
- Administer **Push-dose Epinephrine** 1ml IV/IO
 - **Repeat every 3-5 min**
- Titrate to maintain SBP >80mmHg

PHYSICIAN CONSULT

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