

**LOS ANGELES COUNTY EMS AGENCY
MEDICAL CONTROL GUIDELINES**

Treatment

PRINCIPLE:

1. Transcutaneous Pacing (TCP) allows temporary external cardiac pacing for the treatment of symptomatic bradycardia in adult patients ≥ 14 years of age.
2. Symptomatic bradycardia is a heart rate < 60 beats per minute (bpm) with one or more signs of diminished or poor perfusion related to the bradydysrhythmia: acute ALOC, ongoing chest pain, shortness of breath, hypotension (SBP < 90) or other signs of shock.
3. TCP should not be initiated in patients in asystole.
4. TCP is the first line treatment for symptomatic bradycardia secondary to a second-degree type II heart block (HB) or third-degree HB. Do not delay TCP for IV access if the patient has poor perfusion; atropine may be administered while preparing for TCP.
5. Strongly consider sedation for pacing discomfort: midazolam 1-2mg IVP, maximum adult dose is 10mg **OR** morphine 2-10mg IVP, maximum adult dose is 20mg (when administering the medication, titrate in 2mg increments to reach desired effect). If unable to establish venous access, administer midazolam 2.5mg IM or IN and morphine 5 mg IM.
CAUTION when administering medication: there is a potential to worsen hypotension, closely monitor airway and pulse oximetry.
6. All TCP equipment must be used and maintained in accordance with the manufacturer's guidelines.

GUIDELINE:

1. Explain procedure to patient, family member and/or care giver.
2. When placing pacing electrodes/pads and attaching the pacing cable, follow manufacturer's guidelines.
3. Activate the pacing device, set initial pacing rate at 70 bpm and current at zero mA, slowly increase the mA's until electrical and mechanical capture is achieved.
4. If the patient remains symptomatic with poor or inadequate tissue perfusion, increase the rate by 10 bpm until signs of adequate perfusion or rate is at 100 bpm.