

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8810.09
	<u>PROGRAM DOCUMENT:</u> Transcutaneous Cardiac Pacing	Draft Date:	01/07/99
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		Review:	05/01/18

 EMS Medical Director

 EMS Administrator

Purpose:

- A. To serve as an advanced life support skill guideline for utilizing Transcutaneous Cardiac Pacing (TCP).

Authority:

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

Indications:

In Symptomatic bradycardic adults with a heart rate of less than 50 beats per minute (bpm) and if the following are present: documented by cardiac monitor, a systolic blood pressure less than 90 mm Hg, AND - if other signs or symptoms of hypoperfusion are present, which may include decreased sensorium, diaphoresis, chest pain, capillary refill greater than two seconds, cool extremities, or cyanosis.

Relative Contraindication:

Hypothermia – because the bradycardia is usually a physiologic response to the body temperature.

Equipment:

- A. Transcutaneous Cardiac Pacemaker
- B. Cardiac Monitor / Defibrillator
- C. Pacing Electrodes

Procedure:

- A. Assemble the required equipment.
- B. Explain the procedure to the patient.
- C. Connect the patient to a cardiac monitor and obtain a 12 lead ECG rhythm strip, if possible, or Lead II rhythm strip.
- D. Obtain baseline vital signs.
- E. Apply pacing electrodes (avoid large muscle masses) and attach the pacing cable and pacing device, per manufacturer’s recommendations.
- F. Select the pacing mode to asynchronous or non-demand mode.
- G. Set the pacing rate to 80 bpm.
- H. Set the milliamps (mA) at zero or lowest setting possible.

- I. Provide for patient sedation as described in protocol if needed.
- J. Activate the pacing device and increase the milliamps as tolerated. Observe the patient and ECG until mechanical capture is achieved. Mechanical capture is the point when the pacemaker produces a pulse with each QRS complex.
- K. Obtain rhythm strips as appropriate.
- L. Continue monitoring the patient and anticipate further therapy.

Special Notes:

- A. The conscious patient may experience some pain or discomfort with TCP, which is directly correlated to the intensity of muscle contractions and the amount of applied milliamps.
- B. Any physical contact with the patient by rescuers while TCP is activated may cause the rescuer to experience an occasional tingling or muscle twitching.
- C. Symptomatic Type II 2nd degree blocks and 3rd degree blocks should have TCP implemented without delay.

Cross Reference: Cardiac Dysrhythmias, PD #8024