

EL DORADO COUNTY EMS AGENCY

FIELD PROCEDURES

812

Effective: July 1, 2009
Last Revised: August 2024
Scope: ALS

(on file)

EMS Agency Medical Director

TRANSCUTANEOUS PACING

PURPOSE:

To improve circulation when indicated. The Transcutaneous Pacing Procedure shall only be utilized as indicated in the El Dorado County Bradycardia Prehospital Protocol by ALS personnel.

INDICATION:

Symptomatic bradycardia in adult < 50 bpm and pediatric < 60 bpm patients with signs of inadequate perfusion: Hypotension, acute ALOC, shock, chest pain.

PROCEDURE:

1. Connect patient to monitor and determine rhythm. Obtain baseline vital signs.
2. Remove excessive chest hair.
3. Ensure skin is clean and dry. Remove metal necklaces and underwire bras. Check the person for implanted medical devices or piercings, place pads at least 1 inch away from implanted devices or piercings.
4. Apply adhesive pacing electrodes in the left anterior/left posterior position. (See manufacturer's instructions for specific electrode placement.)
5. Attach pacing cable to electrodes and to pacing device as per manufacturer's directions.
6. Adjust the ECG gain to assure proper sensing of intrinsic QRS complexes.
7. Select a pacing rate of 80 bpm.
8. Increase current by 10mA increments until observed evidence of pacing capture as described below. Set current to 10mA above the threshold level to ensure continued capture.
 - a) **Electrical Capture** is usually evidenced by a pacer spike followed by a wide QRS and a tall, broad T wave. In some patients, it may be less obvious, noted only as a change in QRS morphology at the designated rate. Capture generally occurs between 40-100mA.
 - b) **Mechanical Capture** is evidenced by improved perfusion including a palpable pulse, rise in blood pressure, improved level of consciousness, and improved skin color.
9. Assess patient's comfort level and refer to pain management protocol, if indicated.