EL DORADO COUNTY EMS AGENCY FIELD PROCEDURES

Effective: <u>July 1, 2009</u> **Reviewed**: <u>July 2013, **2018**Revised: <u>July 1, 2016</u></u>

Scope: ALS – Adult and Pediatric

EMS Agency Medical Director

TRANSCUTANEOUS PACING

PURPOSE:

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 < 50bpm and pediatric <60bpm patients with signs of inadequate perfusion: Hypotension, Acute ALOC, Shock, chest pain.

PROCEDURE:

- 1. Connect patient to monitor and obtain rhythm strip. Obtain baseline vital signs.
- 2. Clip away excessive chest hair. (Shaving may produce nicks in the skin increasing the discomfort level during pacing procedure.)
- 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 operation manual 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 pacing rate of 80.
- 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 wide QRS and a tall, broad T wave following each pacer spike. In some patients, it may be less obvious, noted only as a change in QRS configuration. Generally occurs between 40-100mA.
 - b. **Mechanical Capture** is evidenced by a palpable pulse, rise in blood pressure, improved state of consciousness, and improved skin color.
- 9. Assess patient's comfort level and refer to formulary for pain management, if indicated. Withhold if systolic BP < 100.