

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic**

SMO: Transcutaneous Pacing

Overview: Transcutaneous pacing (TCP) stimulates the heart externally through the skin and muscles of the chest wall, causing the heart to contract and maintain cardiac output. TCP is a short-term intervention performed through large pacing electrodes positioned on the patient's chest and back. TCP is indicated for symptomatic bradycardia and asystolic heart rhythms. TCP must be initiated early to be effective.

PROCEDURE

- ___ Consider pacing early in treatment in conjunction with drug therapy.
- ___ CPR should not be interrupted during this procedure.
- ___ Explain procedure to patient if conscious and oriented.
- ___ If IV established, may consider **Versed 2 mg IVP** or **Valium 5 mg IVP** for patient comfort to a maximum of 10 mg. Consult Medical Control for subsequent doses if needed.
- ___ Set the rate of 70 BPM and apply external pacer pads.
- ___ Set the mA to the lowest possible setting.
- ___ Turn power on.
- ___ Run a continuous strip during pacing attempts.
- ___ Have a defibrillator ready.
- ___ Slowly turn up the mA up until evidence of electrical capture occurs (pacer spike followed by a wide QRS on the monitor). **Note: this is usually 50 - 150 mA.** Use the lowest mA required for capture.
- ___ Check for radial pulse, indicating mechanical capture.
- ___ If pulse is not present, increase mA until mechanical capture (palpable pulse) is evident.
- ___ Establish radio contact with hospital.
- ___ If procedure is unsuccessful (there is no palpable pulse), continue or start CPR. Follow the appropriate SOP as indicated by the presenting cardiac rhythm.
- ___ If procedure is successful, secure IV, continue O₂ and assist ventilations if necessary.
- ___ Continuously monitor patient enroute.
- ___ If V-fib or V-tach occur at any time, immediately turn the pacemaker off and proceed to appropriate SOP.

**** Do not exceed 200 mA without direction from Medical Control.**

Documentation of adherence to protocol:

- Patient's presenting symptoms that necessitate pacing.
- Medications that were given to patient.
- Documentation of both electrical capture and mechanical capture.
- If unable to elicit electrical and/or mechanical capture, document that CPR was continued.

Medical Control Contact Criteria

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| <ul style="list-style-type: none"><input type="checkbox"/> For subsequent doses of Versed if needed.<input type="checkbox"/> If more than 200mA is needed to pace patient. |
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PRECAUTIONS AND COMMENTS

- Remember that electrical capture may be seen on the monitor without mechanical capture (patient has a pulse). Be sure that patient has BOTH electrical capture and mechanical capture.
- Good skin contact is needed so may need to shave the hair on chest to ensure this.
- Electrical capture is usually characterized by a pacing spike before each QRS and by a widening of the QRS complex (looks like a PVC).