Southern Illinois Regional EMS System

CC11-PROCEDURE FOR TRANSCUTANEOUS PACING

- Indications:
    - o Hemodynamically compromising bradycardias (BP < 90 systolic, change in mental status,angina, pulmonary edema).
    - o Mobitz Type II second degree heart block.
    - o Third degree complete heart block.
    - o Overdrive pacing of refractory tachycardias.
    - o Bradyacardia < 20 minutes.
    - o Pacing is rarely required in pediatric arrest but should be considered in children with primarybradycardia from congenital defects or bradycardia following open heart surgery.

- Contraindications:
    - o Severe hypothermic patient with bradycardia.
    - o Asystole.

- Complications:
    - o Failure to recognize the pacer is not capturing
    - o Induction of arrhythmias or V-fib
    - o Pain from electrical skin and muscle stimulation

- Procedure:
    - o Initiate cardiac care.
    - o Place patient in a supine position.
    - o Confirm symptomatic bradycardia.
    - o Contact Medical Control for medication to control pacing pain if needed.

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- o Apply the pacing electrodes per manufacturer's recommendation.
    - Unless contraindicated by manufacturer, placement of electrodes should be:
    - Anterior chest wall - left of the sternum centered as close as possible to the point of maximum cardiac impulse
    - Back- behind the anterior electrode to the left of the thoracic spinal column.
- o Connect the electrodes.
- o Set the heart rate at 70 beat/min.
- o Turn the voltage down to 0.
- o Turn pacer on.
- o Slowly increase the voltage until ventricular capture. Electrical capture is usually characterized by a widening of the QRS complex and especially by a broad T wave with the T wave opposite the polarity of the QRS complex.
- o Constantly monitor the pulse and blood pressure
    - Pulses should be taken at the right carotid or right femoral artery to avoid confusion between jerking muscle contractions caused by the pacer.
- o Report patient condition to Medical Control.
- o Monitor and document the patient's response to treatment.