Transcutaneous Pacing

Procedure

Douglas County KS EMS System **March 2022**

Approved Provider: Paramedic

Reference Protocols: Dysrhythmia

Indications

- Unstable bradycardia as defined below and in dysrhythmia protocol
  - Severe Decreased LOC. GCS Less than 8
  - Hypotension
  - Cardiogenic shock due to dysrhythmia
  - Last step in treatment algorhythm as indicated by dysrhythmia protocol

Precautions

- Transcutaneous pacing is not the initial step in treatment of either unstable bradycardia or bradycardic/asystolic cardiac arrest.
- Appropriate BLS and ALS maneuvers, as mandated by protocol, should be carried out first.

Procedure (Fig. 1)

- Connect ECG electrodes to patient in standard positions (pacer will not operate without ECG monitor in place).
- Clean and dry chest. Remove excess hair if necessary to obtain optimal electrode to skin contact.
- Connect CPR Stat-padz to matching cable
- Apply patches to patient's chest as described:
  1. Anterior – Posterior ***Preferred*** (Fig. 1)
     a. Apply one electrode left anterior chest halfway between the xiphoid process and left nipple, with the upper edge of the electrode below the nipple line.
     b. Place the other electrode on left posterior chest beneath the scapula and lateral to the spine
  2. Anterior-Anterior *only used when anterior- posterior is not able to be completed*
     a. Place the positive patch (with the heart on it) on the left side of the chest, midaxillary over the fourth intercostals space.
     b. Place the negative electrode on the right chest, subclavicular area.
- Always apply back electrode first. If front electrode is already in place when patient is being maneuvered for placement of the back, the front may become partially lifted. This could lead to arcing and skin burns.
- Anterior – Anterior in not recommended for noninvasive pacing. Noninvasive pacing with this configuration can lead to decreased patient tolerance and increased capture thresholds.
- Push "PACER" Button
- Insure that each QRS complex is being sensed (Sensing marks will appear on monitor screen and on print out)
- If no intrinsic beats then skip this step.

Transcutaneous Pacing

Procedure

Douglas County KS EMS System **March 2022**

Select pacing rate

- Adults and children >8 years, begin at 70 bpm
- Children < 8 years, begin at 100 bpm
- Set milliamps at 30mA possible setting and increase current by 10mA increments, until electrical capture occurs.
- Determine if mechanical capture has occurred.
- If not, continue to increase current until mechanical capture occurs
- Once mechanical capture has occurred, increase by 10mA and monitor patient for improvement
- To terminate pacing, push "Pacer" button and then "Stop Pacing"

Documentation

- Indications for procedure
- Rate and milliamps for capture
- Response to intervention

Note

- **On arriving at receiving facility DO NOT TERMINATE PACING until such time as the ER physician instructs you to do so.**
- The pacer electrodes may be placed in the stable bradycardic patient but should not be used unless the patient deteriorates

Fig. 1