

Paramedics should take steps to transport all critically injured trauma patients and STEMI patients within ten (10) minutes (unless using air evacuation) and most other medical and trauma patients within twenty (20) minutes. When transporting critically injured or ill patients by ground, paramedics should notify the receiving facility of their estimated time of arrival (ETA) as soon as possible to allow the hospital time to activate internal teams and/or other specialized resources.

Paramedics should consider remaining on scene and treating adult cardiac patients with an asystolic rhythm. These patients can be transported after converting to a more stable rhythm or can be declared dead with a base physician order if they fail to respond to specific ALS treatments.

### **CARDIAC MONITORING:**

It is assumed that personnel will place any patient in which the monitoring of their cardiac rhythm is either integral to their management (e.g. cardiac patients, syncope) or beneficial for the paramedic in providing care (monitoring heart rates). While reference to placing a patient on the cardiac monitor remains on several protocols, we have deleted the constant reference to reassessing the cardiac rhythm after treatments, as it is assumed that the need for this is obvious (e.g. following defibrillation or medication administration, etc.).

A good quality 12 lead ECG should be quickly completed for all patients with suspected cardiac ischemic chest pain, preferably prior to nitrate administration. Every effort should be made to obtain an ECG free of artifact and wandering baselines. It may be necessary to provide skin preparation such as shaving or by having the patient hold their breath. If a STEMI is identified, early transport is imperative. When able the paramedic should begin treatments such as IV's and medications enroute.

### **TRANSCUTANEOUS PACING (TCP):**

#### **Indications:**

TCP may be utilized for the following patients after 1 mg of Atropine have been administered:

- A. Hemodynamically unstable bradycardic adult patients unresponsive to drug therapy.
- B. Patients in Asystole following electrocution, with a down time of less than 10 minutes.

- C. For patients on the order of a physician who is initiating an interfacility transfer. Under these circumstances, the paramedic should confirm the pacing settings from the transferring physician.

### **Contraindications:**

- A. Hemodynamically or symptomatically stable patients.
- B. Any patient in Asystole except as indicated above in section 1(B).

### **Procedure:**

- A. Consider administration of Morphine Sulfate for pain and/or Versed for sedation, as indicated in the Adult Treatment Protocols.
- B. Place pads on the patient's chest and back. Set initial TCP rate at 80 beats per minute (bpm).
- C. Begin output at the lowest milliamps (mA) for the monitor in use and increase by 10mA until capture/pulses are noted. Once capture is confirmed, continue pacing at a slightly higher output level (10%).
- D. If capture is maintained but the patient remains symptomatic of inadequate tissue perfusion (BP less than 90 systolic, altered level of consciousness), consider increasing rate by 10 bpm until symptoms resolve or 100 bpm is achieved.

### **Troubleshooting:**

- A. Make sure the pads are properly placed and have good contact with the skin.
- B. Check the batteries of the pacer.
- C. Use adequate energy to capture the rhythm.
- D. Use adequate analgesia and sedation to minimize patient discomfort.

## **NEEDLE THORACOSTOMY:**

### **Indications:**

Signs and symptoms of a tension pneumothorax include **all of the following:**