

# Synchronized Cardioversion

## Procedure

Douglas County KS EMS System

March 2022

**Approved Provider:** Paramedic

**Reference Protocols:** [Dysrhythmia](#)

### **Indications**

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

### **Precautions**

- Cardioversion is not the initial step in treatment unless above indications are met
- Appropriate BLS and ALS maneuvers, as mandated by protocol, should be carried out first unless above indications are met.

### **Contraindications**

- Pulseless Patients
- Apneic Patients

### **Procedure (Fig. 1)**

- Connect ECG electrodes to patient in standard positions (synchronization will not occur without ECG monitor in place)
- Clean and dry chest. Remove excess hair if necessary to obtain optimal electrode to skin contact.
- Connect fast patches to matching cable
- Apply fast patches to patient's chest as described below:
  - Anterior-Posterior **\*preferred\*** (Fig. 1)
    - 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.
    - Place the other electrode on left posterior chest beneath the scapula and lateral to the spine
  - Anterior-Anterior *only used when anterior- posterior is not able to be completed*
    - Place the positive patch (with the heart on it) on the left side of the chest, midaxillary over the fourth intercostals space.
    - Place the negative electrode on the right chest, subclavicular area.
- Push the "SYNCH" button.
  - Insure that each QRS complex is being sensed. Sensing marks will appear on screen and on print out.
- Set appropriate energy setting.
  - **Narrow/Regular:** 50J - 100J - 150J
  - **Narrow/Irregular:** 120J – 150J – 200J
  - **Wide/ Regular:** 120J – 150J – 200J
  - **Wide/ Irregular:** Defib 120J – 150J – 200J

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### Procedure (cont.)

- Ensure nobody is touching the patient.
- Push and hold the "SHOCK" button. Hold until the energy is delivered.
- Repeat as necessary and monitor patient for improvement or deterioration.

### Documentation

- Indications for procedure.
- Energy required for conversion.
- Response to intervention.

### Notes

- Fast patches may be placed on the stable tachycardic patient but should not be used unless the patient deteriorates.

Fig. 1

## ADULT ANTERIOR/POSTERIOR

