

# SYNCHRONIZED CARDIOVERSION

## OVERVIEW:

Synchronized electrical cardioversion causes a rapid and complete depolarization of cardiac tissues. Under many circumstances synchronized electrical cardioversion is the quickest and most effective method of correcting a life-threatening dysrhythmia.

## INDICATIONS:

- Patients who are exhibiting hemodynamically unstable tachycardias (wide or narrow complex).
  - Patients are unstable if they display one or more of the following:
    - Altered mental status
    - Chest pain
    - Syncope
    - Dyspnea
    - Hypotension
    - Pulmonary congestion
    - CHF
    - AMI
  - In most situations, Synchronized cardioversion is usually reserved for those adult patients with heart rates over 150 beats/minute.

## CONTRAINDICATIONS:

- Supraventricular tachycardia induced by non-cardiac conditions (medication – digitalis toxicity, hypovolemia, hyperthermia, hypoxia, etc.).

## PROCEDURE:

- |           |  |           |
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| PARAMEDIC | <ul style="list-style-type: none"><li><input type="checkbox"/> Explain procedure and reassure patient</li><li><input type="checkbox"/> Initiate sedation with <b>Midazolam 2.5mg – 5mg IV/IO/IN/IM</b><ul style="list-style-type: none"><li>○ May defer sedation if patient's level of consciousness is significantly diminished and the patient is hemodynamically unstable – administering after procedure is acceptable</li></ul></li><li><input type="checkbox"/> Place defib/cardioversion pads on patient in accordance with manufacture's recommendation for cardiac device being used.<ul style="list-style-type: none"><li>○ Anterior/Lateral or Anterior/Posterior</li></ul></li><li><input type="checkbox"/> Set cardiac device to Synchronize with QRS complexes</li><li><input type="checkbox"/> Select appropriate initial energy setting per manufacture's recommendation for cardiac device being used:<ul style="list-style-type: none"><li>○ Wide Complex Tachycardias (e.g., 100J for Physio 75J for Zoll etc)</li><li>○ Narrow Complex Tachycardias (e.g., 50J for Physio 70J for Zoll etc)</li></ul></li><li><input type="checkbox"/> Clear the patient and deliver shock</li><li><input type="checkbox"/> Re-assess patient and repeat procedure as required</li></ul> | PARAMEDIC |
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## CONSIDERATIONS:

- If energy is delivered without synchronization, ventricular fibrillation could result
- Depending upon the cardiac device being used, synchronization may be required following each counter shock – refer to the operational materials for your specific device.
- Ensure synchronization is turned OFF if defibrillation becomes necessary.