

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic**

SMO: Cardioversion

Overview: Cardioversion is the use of direct current electricity to convert a cardiac dysrhythmia to a sinus mechanism. The use of electrical current to terminate ventricular fibrillation is termed defibrillation and is not covered in this protocol. Cardioversion is performed with the aid of a synchronizer, which assures a timed discharge of electrical current during a specific phase of the cardiac cycle. (In defibrillation, electrical current is immediately discharged asynchronously, that is, regardless of the underlying chaotic cardiac activity.

Cardioversion is reserved for patients in an abnormal rhythm (Ventricular Tachycardia, Atrial Flutter, Atrial Fibrillation and Supraventricular Tachycardia) with demonstrated hemodynamic instability. Please see these protocols for specifics of when to administer cardioversion.

INFORMATION NEEDED

- __ Identify Patient's cardiac rhythm – Ventricular Tachycardia, Atrial Flutter, Atrial Fibrillation, Supraventricular Tachycardia.
- __ Patient's code status, in the presence of a valid DNR, cardioversion would not be performed.
- __ Presence of comorbid conditions such as renal failure, drug overdose – if suspected call medical control prior to administering cardioversion as digitalis toxicity and other medications may be relative contraindications to cardioversion.

OBJECTIVE FINDINGS

- __ **Evidence of Hemodynamic Instability in the presence of specific dysrhythmia**
 - Hypotension with SBP 100mmHg or less
 - Evidence of Congestive Heart Failure: rales, JVD, peripheral edema
 - Chest pain suggestive of myocardial ischemia
 - Evidence of neurologic dysfunction suggestive of neurologic ischemia

TREATMENT

- If awake and time permits, consult Medical Control to administer sedation: **Valium 5mg IVP or Versed 2 mg IVP.**
- Apply defibrillation pads to appropriate positions on chest wall.
- Turn on defibrillator
- Select appropriate energy level for clinical situation
- Press synchronizer switch/button
- Assure machine sensing of R wave
- Place paddles on the chest and apply firm pressure. (If using Hands-Free defib pads, make sure leads to defibrillator are connected properly)
- Charge up paddles/defibrillator
- State and LOOK to be sure area is clear
 - a. “I am going to shock on three. One, I’m clear”. Assure free of contact with stretcher and patient.
 - b. “Two, you are clear.” Assure all personnel, including those ventilating the patient and performing chest compressions, are clear of the stretcher and patient.
 - c. “Three, everybody is clear.” Look all around, 360 degrees, to assure everyone is clear of the patient and stretcher.
- Press both discharge buttons simultaneously and hold both buttons until delivery of shock occurs.
- Reassess patient and proceed as indicated by patient condition.

Medical Control Contact Criteria

- Consult Medical Control for administration of Valium or Versed for sedation.