# 7.19 SYNCHRONIZE CARDIOVERSION PUBLIC COMMENT OCTOBER 2024

#### **INDICATIONS**

Adults: 2.08 Dysrhythmia: Tachycardia

Persistent tachycardia typically >150 bpm, causing one or more of the following hemodynamically unstable conditions: Altered mental status, hypotension (systolic <90mmHg, signs or shock, ischemic chest discomfort, shortness of breath, or pulmonary edema likely due to the arrythmia.

Pediatric: 8.04 Pediatric Dysrhythmia: Tachycardia

Persistent tachycardia typically >220 bpm (infants), >180 bpm (child) for narrow complex and >120 in infants and children for wide complex tachycardias.

#### **CONTRAINDICATIONS**

None

#### **PROCEDURE**

- 1. Place pads in anterior/lateral position. If unable or patient has pre-existing implanted device such as pacemaker or AICDs, place pads anterior/posterior position.
- 2. Attach cables to the monitor.
- 3. Select "Sync" button on monitor.
  - a) Monitor will be in "sync" when sync cursor is above each R wave
- 4. Select energy level.
- **5.**Charge monitor.
- **6.** "Clear" team members and equipment (e.g Oxygen tank, monitor etc.) from patient.
- 7. Press and hold "shock" button until shock is delivered.
- **8.** If patient needs additional cardioversion ensure "sync" button is on as some monitors will default to turn the "sync" feature off after each cardioversion.

#### As a general guideline:

#### **Adults:**

- a) Narrow QRS and regular: start at 70J\*
- b) Narrow QRS and irregular: start at 120J\*
- c) Wide QRS and regular: start at 100J\*
- d) Wide QRS and irregular: attempt to sync, if unable, defibrillate: 120J\*
  - \* Increase in step wise fashion if previous shocks are ineffective

#### **Pediatric:**

- a) Begin with 0.5-1J/kg.
- b) If previous cardioversion is ineffective subsequent doses at 2J/kg.
- c) Refer to length-based resuscitation tape for weight approximation.

#### **CONSIDERATIONS**

- A. Strongly consider **Midazolam** prior to cardioversion. Do not delay Midazolam to start an IV.
- **B.** Midazolam is not contraindicated if SBP is < 90 if used for pre-procedural sedation.

SAN FRANCISCO EMS AGENCY

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- **C.** Cardioversion is safe in pregnant patients.
- **D.** Remove medication patches or place pads to assure pads are not over patches.

