



Amherst Fire District Procedure

Synchronized Cardioversion

Clinical Indications:

- Unstable patient with an organized and perfusing tachydysrhythmia (rapid atrial fibrillation, supraventricular tachycardia, ventricular tachycardia). Unstable means that there are signs of poor perfusion, including altered mental status, ongoing chest pain, hypotension, pulmonary edema, or other signs of shock.
- Patient is not pulseless (VF, pulseless VT and unstable polymorphic VT should be treated with unsynchronized shocks, i.e., defibrillation).

Procedure:

1. Ensure the patient is attached properly to a monitor/defibrillator capable of synchronized cardioversion.
2. If patient has a systolic blood pressure greater than 110 mmHg consider using Versed (midazolam) for patient sedation. Initially administer 2.5 mg slowly over 2 minutes and then titrate additional doses to effect at two minute intervals; up to a maximum dose of 5 mgs. Contact Medical Control if additional Versed is needed.
3. Administer 50 – 100 mcg of fentanyl for pain relief.
4. If the systolic blood pressure is less than 110 mmHg, it is OK to cardiovert with minimal or no sedation or analgesia.
5. Set synchronized energy selection dependent upon the following rhythms:
 - **Narrow Regular** - SVT, atrial flutter
 - 50-100 joules initially, repeat incrementally
 - **Narrow Irregular** - atrial fibrillation
 - 120-200 joules initially, repeat incrementally
 - **Wide Regular** - SVT w/aberrancy, monomorphic VT
 - 100 joules initially, repeat incrementally
6. Press the Sync button
7. Press the Charge button
8. Make certain all personnel are clear of patient.
9. Press the Shock button and hold until after delivery of energy. Stay clear of the patient until you are certain the energy has been delivered. It may take the monitor/defibrillator several cardiac cycles to “synchronize”, resulting in a delay between initiation of cardioversion and the actual delivery of energy.
10. If the patient’s rhythm deteriorates into pulseless ventricular tachycardia or ventricular fibrillation, perform immediate defibrillation (unsynchronized cardioversion), following the procedure for Defibrillation-Manual.
11. If the patient has not improved after two attempts of cardioversion, contact medical control.
12. Note the procedure, response to treatment and time in your patient care report (PCR).
13. Repeat steps 5-9 for additional synchronized cardioversion attempts.

Certification Requirements:

- Successfully complete an annual skills evaluation inclusive of the indications, contraindications, technique and possible complications of the procedure.