San Benito County Emergency Medical Services Agency

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

Policy : C3-P
Effective : May 1, 2014
Reviewed : March 1, 2014

I. BLS Treatment Protocol:

A. Treat life threats (See Policy 4000)
B. Prepare for transport/ transfer of care.
C. A precordial thump may be employed to treat confirmed witnessed ventricular fibrillation/pulseless ventricular tachycardia only when a defibrillator is not immediately available.

II. ALS Treatment Protocol:

A. Treat life threats (See Policy 4000)
B. Cardiac monitor- defibrillate at 2J/kg.
C. Epinephrine 0.01mg/kg 1:10,000 IV/IO (0.1 ml/kg) 1mg IVP/IO.
D. Defibrillate at 4J/kg.
E. Lidocaine 1mg/kg IV/IO. Continue Lidocaine dose maximum 3mg/kg total infused.
F. Continue to defibrillate at 4J/kg every two minutes.
G. If the patient remains unresponsive to treatment despite the thorough implementation of this protocol, paramedics may consider making a field determination of death as outlined in Policy 1140.
H. When transporting, contact receiving hospital as soon as possible.
I. If a return of spontaneous circulation (ROSC) is achieved, paramedics should follow the following guidelines for post-arrest management:

- **Maintain 02 saturations (Sp02) at 95% or better using the lowest concentration of 02 possible.** If the patient has high 02 saturations, titrate 02 concentration to the lowest concentration necessary to achieve this saturation level. Ventilation on room air is optimal if saturations can be maintained.

- **Ventilate the patient** 10-12 breaths per minute to achieve an end tidal CO2 of 35 – 45 mmHg. **Avoid hyperventilation!**

- **Maintain a minimum systolic BP of 90 mmHg.** Use IV fluids and dopamine starting at 5 – 10 mcg/kg/minute to a total of 20 mcg/kg/minute to achieve this. If the patient's BP is 100 systolic or higher, there is no need for any further circulatory support.

- **Manage post-arrest arrthymias as needed.**

Notes:

- Certain patients in ventricular fibrillation are more likely candidates for transport – for example, patients who are hypothermic, drug overdoses, or who have been electrocuted.

- Cardiac arrest in known dialysis patients: paramedics may administer sodium bicarbonate 1 mEq/kg IV/IO along with calcium chloride 20 mg/kg IV/IO to those patients currently receiving dialysis in order to treat possible hyperkalemia.