



County of Santa Cruz

HEALTH SERVICES AGENCY

POST OFFICE BOX 962, 1080 EMELINE AVENUE SANTA CRUZ, CA 95061-0962

(831) 454-4120 FAX: (831) 454-4272 TDD: (831) 454-4123

EMERGENCY MEDICAL
SERVICES PROGRAM

Protocol No. C3
April 1, 2012

Emergency Medical Services Program

Approved

Medical Director

Subject: VENTRICULAR FIBRILLATION / PULSELESS VENTRICULAR TACHYCARDIA

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 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 1 time @ highest joules setting. Continue to defibrillate as indicated every two minutes.
- C. Epinephrine 1mg IVP/IO. Repeat every 3-5 minutes at 1mg.
- D. Amiodarone 300 mg IV/IO.
- E. Continue administering epinephrine and defibrillate as needed.
- F. Amiodarone 150 mg IV/IO if no response to initial dosing.
- 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 patient achieves an ROSC without any Amiodarone, administer Amiodarone 150 mg infusion over 10 minutes.

Notes:

1. Cardiac arrest in known dialysis patients: paramedics may administer sodium bicarbonate 1 mEq/kg IV/IO along with calcium chloride 1 gram IV/IO to those patients currently receiving dialysis in order to treat possible hyperkalemia.
2. If a return of spontaneous circulation (ROSC) is achieved, paramedics should follow these guidelines for post-arrest management:
 - **Maintain O₂ saturations (SpO₂) above 94% using the lowest concentration of O₂ possible.** If the patient has high O₂ saturations, titrate O₂ concentrations down 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. **No 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 arrhythmias as needed.**
 - **Obtain a 12 lead ECG.** Transmit/transport to Dominican Hospital if a STEMI is identified. Make base station contact if transporting from South County prior to transport.