



County of Santa Cruz

HEALTH SERVICES AGENCY

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EMERGENCY MEDICAL
SERVICES PROGRAM

Protocol No. C2-P
April 1, 2012

Emergency Medical Services Program

Approved

Medical Director

Subject: PULSELESS ELECTRICAL ACTIVITY

I. BLS Treatment Protocol:

- A. Treat life threats (See Policy 4000)
- B. Prepare for transport / transfer of care.

II. ALS Treatment Protocol:

- A. Treat life threats (See Policy 4000)
- B. Consider and treat possible causes:
 - Hypovolemia - Toxins/Tablets (Drug OD)
 - Hypoxia - Trauma
 - Tension Pneumothorax - Hypoglycemia
 - Hyperkalemia
 - Hypothermia
- C. Epinephrine 0.01mg/kg 1:10,000 IV/ IO (0.1ml/kg)
Repeat Epinephrine every 3-5 minutes (regardless of route).
- D. 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.
- E. When transporting, contact the receiving hospital as soon as possible.
- F. If a return of spontaneous circulation (ROSC) is achieved, paramedics should follow these guidelines for post-arrest management:

- **Maintain O2 saturations (SpO2) at 95% or better 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 and transmit as indicated.** Crews in South County should contact Dominican Hospital before transporting a post-arrest STEMI patient north as transport to Watsonville Community Hospital may be more appropriate.

Note:

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