



County of Santa Cruz

HEALTH SERVICES AGENCY

EMERGENCY MEDICAL
SERVICES PROGRAM

Protocol No. C2
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
 - Hypoxia
 - Tension Pneumothorax
 - Hyperkalemia
 - Hypothermia
 - Hypoglycemia
 - Toxins/Tablets (Drug OD)
 - Trauma
- C. Epinephrine 1mg IVP/IO. Repeat every 3-5 minutes at 1mg.
- 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.

Notes:

1. Certain patients in PEA are more likely candidates for transport- for example, patients who are hypothermic, drug-overdosed, or who have been electrocuted.
2. 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.

3. 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.