



# 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. C1-P  
April 1, 2012

### Emergency Medical Services Program

Approved

Medical Director

Subject: CARDIAC ASYSTOLE

**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. Cardiac Monitor – confirm asystole in two leads\*  
Epinephrine 0.01mg/kg 1:10,000 IV/ IO (0.1ml/kg)  
Repeat Epinephrine every 3-5 minutes (regardless of route).
- C. Check blood sugar.
- 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 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.

Notes:

- Be aware that what may appear to be asystole may be fine ventricular fibrillation which may respond to countershock. Therefore, check alternate leads and consider countershock @ 2 joules /kg.
- Certain patients in asystole 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.