

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 07/01/02
Supersedes: 01/01/11

Protocol: P-009.2

CARDIAC ARREST: PULSELESS ELECTRICAL ACTIVITY

SUBJECTIVE FINDINGS

- See CARDIAC ARREST: OVERVIEW Protocol (P-009).

OBJECTIVE FINDINGS

- Pulseless.
- Apneic.
- Organized Electrical Activity on the monitor (NOT V-Fib or Asystole).

BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• Assess ABC's.• Start CPR if indicated (See Policy 4050 Death in the Field).• Ensure adequacy of CPR.• Attach AED and utilize as required.• Obtain quick, resuscitation-oriented patient history from by-standers if possible.	<ul style="list-style-type: none">• Ensure adequacy of CPR.• Advanced Airway Management. Confirm tube placement.• IV of NS.• Consider 500ml fluid challenge. Repeat if indicated.• Epinephrine (1:10,000) 1mg IVP. Repeat q 3 to 5 min.• Assess for possible causes of PEA and administer corresponding treatments (See PRECAUTIONS AND COMMENTS),• If heart rate ≤ 60, consider Atropine 1 mg IVP. Repeat q 3 to 5 min. to a total dose of 3 mg,• Sodium Bicarbonate 1mEq/kg IVP for suspected hyperkalemia (renal failure, dialysis, potassium ingestion), DKA, or tricyclic or Phenobarbital overdose.• Calcium Chloride 1 gram slow IVP (over 1-2 minutes) for suspected hyperkalemia or calcium channel blocker overdose.• If organized rhythm with hypotension (SBP ≤ 90) develops after treating reversible causes of PEA, consider Dopamine 5-20 mcg/kg/min IV infusion. Titrate to SBP > 90 mmHg.

DOCUMENTATION

- CPR performed.
- Intubation or BLS airway management performed.
- **Epinephrine** administered.
- If a cause is documented, appropriate treatment is given, e.g. Hypovolemia-fluid bolus.

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 07/01/02
Supersedes: 01/01/11

Protocol: P-009.2

PRECAUTIONS AND COMMENTS

- Consider termination of efforts if patient is unresponsive to initial treatments (See Policy 4050 Death in the Field).
- External pacing has not been shown to be effective in most patients presenting in bradysystolic cardiac arrest.
- Consider possible causes of PEA ("5 H's and 5 T's") and possible treatments:

CAUSE: 5 H's	SPECIFIC FIELD TREATMENT
Hypoxia	Secure airway and ventilate pt
Hypovolemia	History—any suspicion—give fluid boluses
Hypothermia	See HYPOTHERMIA protocol
Hyperkalemia	Consider Sodium Bicarbonate, Calcium Chloride
Hydrogen Ion-Acidosis	Secure airway. Ventilate patient. Consider Sodium Bicarbonate.

CAUSE: 5 T's	SPECIFIC FIELD TREATMENT
Thrombosis (Coronary)	None
Thrombosis (Pulmonary)	None
Tension Pneumothorax	Needle thoracostomy
Tamponade (Cardiac)	None
Tablets: Drug overdose	Obtain history —treat accordingly