

SAN LUIS OBISPO COUNTY EMERGENCY MEDICAL SERVICES AGENCY  
PREHOSPITAL POLICY

Policy Reference No: 619  
Effective Date: 11/01/10  
Supersedes: N/A  
Review Date: 11/01/12

SUBJECT: PREHOSPITAL 12-LEAD ECG

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PURPOSE:

To establish an operating policy for the acquisition, interpretation and/or communication of a 12-lead ECG in the prehospital setting to facilitate early identification of possible Acute Coronary Syndrome (ACS) and ST- Elevation Myocardial Infarction (STEMI).

AUTHORITY:

- A. California Health and Safety Code, Division 2.5, Ch. 4 Art. 1, Ch. 5 Sections 1798 (a & b), and 1798.2.
- B. California Code of Regulations, Title 22, Division 9 Ch. 2 Art. 2, Sections 100063, Ch. 4, Art. 2, Sections 100144, 100145, and 100147.

POLICY:

- A. ALS personnel shall be trained in the performance and basic interpretation of 12-lead ECG per EMS Agency standards and program approval.
- B. 12-lead ECG monitoring equipment shall be carried by all transporting ALS agencies and is optional for non-transporting ALS units.

PROCEDURES:

- A. A 12-lead ECG should be used in conjunction with, and not delay the use of, the appropriate Emergency Medical Services Agency treatment protocols.
  - 1. Obtain a 12-lead ECG early.
  - 2. Do not delay transport to obtain a 12-lead ECG.
  - 3. Subsequent 12-lead ECGs should be obtained while transporting to the hospital.
- B. Indications
  - 1. Patients with chest pain or other signs and symptoms suggestive of Acute Coronary Syndrome (ACS).
  - 2. Patients with atypical symptoms or anginal equivalents such as shortness of breath, syncope, dizziness, weakness, diaphoresis, nausea/vomiting or altered level of consciousness.
  - 3. Patients with cardiac dysrhythmia.

4. Patients with pulmonary edema if not in extremis/needling acute airway management.
5. Patients with cardiogenic shock or post-cardioversion.
6. Diabetic patients with shortness of breath.
7. Post-cardiac arrest patients with return of spontaneous circulation (ROSC).

C. Contraindications (Relative)

**Consider not performing 12-lead ECG on these patients:**

1. Trauma unless an event of coronary origin is suspected.
2. Cardiac arrest – unless there is a return of spontaneous circulation (ROSC).
3. Respiratory arrest.
4. An uncooperative patient.

D. STEMI Receiving Center (SRC) and Base Hospital Communications

1. A “STEMI Alert” shall be communicated with the SRC if the ECG analysis indicates “Acute MI”, “Acute MI Suspected” or equivalent reading.
2. Non-STEMI ECG information should be communicated with the closest Base Hospital and treated according to ALS treatment protocols and destination policies.
3. The SRC shall communicate the desired patient destination after the prehospital 12-lead ECG has been completed and communicated.
4. A prehospital “STEMI Alert” Report shall contain the information outlined in *San Luis Obispo County Emergency Medical Services Agency Prehospital Policy 618: Paramedic Base Hospital Report*.

E. DOCUMENTATION

1. Two (2) copies of the pre-hospital 12-lead ECG (multiple if performed) shall be made: one delivered to the personnel at the receiving hospital responsible for the continued care of the patient and one to be included with the Patient Care Report (PCR).
2. The findings of the pre-hospital 12-lead ECG and the confirmation of a “STEMI Alert” shall be documented on the 12-lead ECG and in the PCR.

QUALITY IMPROVEMENT PLAN:

ALS providers performing 12-lead ECG programs shall participate in a QI program in cooperation with the Emergency Medical Services Agency and other EMS system participants as defined by *San Luis Obispo County Emergency Medical Services Agency Prehospital Policy 109: Quality Improvement Program Guidelines*.