

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8827.09
	<u>PROGRAM DOCUMENT:</u>  <b>12-Lead ECG</b>	Draft Date:	02/23/05
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 EMS Medical Director

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 EMS Administrator

**Purpose:**

- A. To serve as an advanced life support skill guideline for utilizing 12-Lead Electrocardiogram (ECG).

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Indications:**

- A. Discomfort/Pain of Suspected Cardiac Origin policy, PD#8030 in stable adult patients.
- B. Symptomatic Bradycardia per Cardiac Dysrhythmias policy, PD#8024.
- C. Symptomatic Tachycardia per Cardiac Dysrhythmias policy, PD#8024.
- D. Consider for Upper Abdominal Pain per Abdominal Pain policy, PD#8007
- E. Consider in patients forty (40) years or older with atypical signs or symptoms of acute coronary syndrome (ACS).  
 Note, Atypical ACS signs and symptoms include:
  - 1. atypical chest pain, shortness of breath, nausea, hypotension, brady/tachydysrhythmias or syncope.
  - 2. High risk populations for atypical ACS signs and symptoms include: Diabetics, elderly (> 75 years of age), and women.
  - 3. Patients under 40 years of age account for only 0.3% of STEMI (AHA data) and most often have typical ACS symptoms.
- F. If 12- Lead indicates STEMI or Acute MI refer to Discomfort/Pain Suspected Cardiac Origin policy, PD# 8030.

**Equipment:**

- A. Cardiac Monitor with 12-Lead capabilities
- B. Electrodes
- C. Skin preparation equipment

**Procedure:**

- A. Assemble the required equipment.
- B. Explain the procedure to the patient.
- C. Place the electrodes for a standard 12-Lead ECG.
- D. Obtain 12-Lead ECG and rhythm strip.

**Special Notes:**

- A. The most appropriate facility for hemodynamically stable patients (SBP > 90 mmHg) who have a 12-Lead ECG consistent with an acute myocardial infarction (MI) is a facility providing interventional cardiac catheterization services. Examples of 12-Lead ECG computer interpretations reading "ACUTE MI", "ACUTE MI SUSPECTED", "ST Elevation Criteria Met" or "STEMI" are accepted as consistent with an acute myocardial infarction.
- B. Hemodynamically unstable patients (SBP < 90 mmHg) shall be transported to the time closest facility providing interventional cardiac catheterization services.
- C. Patients should not have transport unduly delayed by attempts to obtain a 12-Lead ECG.
- D. ~~All computer interpretations shall be relayed to the receiving facility prior to arrival.~~  
"+STEMI" 12-Lead ECGs shall be transmitted to the STEMI ALERT receiving facility when technologically possible or when requested by receiving facility. ~~Electronically if available.~~
- E. ~~A copy of all 12-Leads shall be delivered to the receiving facility with the patient. will be left at receiving facility.~~
- F. 12-lead ECGs may be transmitted when looking for a medical consult.

Cross Reference: Discomfort/Pain of Suspected Cardiac Origin PD #8030  
Hospital Services PD #2060  
Cardiac Dysrhythmias PD #8024  
Abdominal Pain PD #8007