



COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES		HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title 12 Lead ECG		Policy Number: 726
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APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: December 1, 2023
Origination Date:	August 10, 2006	
Date Revised:	August 23, 2023	
Date Last Reviewed:	August 23, 2023	Effective Date: December 1, 2023
Review Date:	October 31, 2025	

- I. Purpose: To define the indications, procedure and documentation for obtaining 12-lead ECGs.
- II. Authority: California Health and Safety Code, Sections 1797.220 and 1798, California Code of Regulations, Title 22, Section 100175.
- III. Policy: Paramedics will obtain 12-lead ECGs in patients with the indications listed in this policy. EMTs who are specially trained may be authorized to set up the 12-lead.
- IV. Procedure:
 - A. Indications for a 12-lead ECG:
 1. History of present illness consistent with an acute coronary syndrome.
 - a. Chest, upper back or upper abdominal discomfort
 - b. Generalized weakness
 - c. Dyspnea
 2. Cardiac Dysrhythmia
 - a. Symptomatic bradycardia
 - b. Inappropriate Tachycardia
 - c. After successful cardioversion/defibrillation
 3. Post ROSC
 4. Paramedic Discretion
 - B. Contraindications (Do NOT perform an ECG on these patients):
 1. Critical Trauma: There must be no delay in transport.
 2. Cardiac Arrest: unless return of spontaneous circulation (ROSC).

C. ECG Procedure:

1. Attempt to obtain an ECG during initial patient evaluation. If the patient is not in severe distress, ECG should be completed as soon as possible and prior to medication administration.
2. The ECG should be done prior to transport.
3. If the ECG is of poor quality (artifact or wandering baseline), repeat x 2.
4. If the ECG does not read as a positive STEMI ECG (POS STEMI ECG) and the patient's condition worsens at any time, repeat the ECG.
5. Once an acceptable quality ECG is obtained, switch the monitor to the standard 4-lead function.

D. Base Hospital Communication/Transportation:

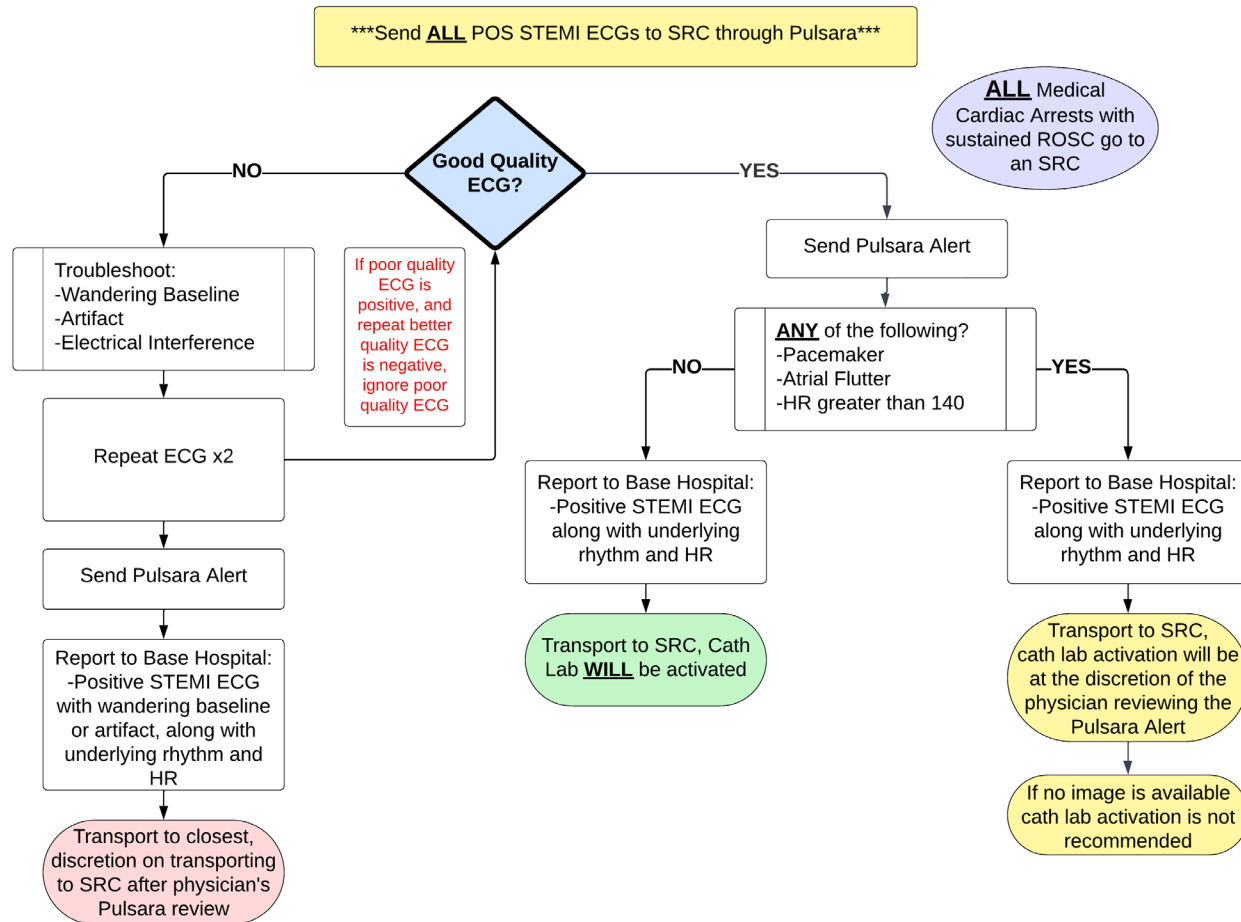
1. If the interpretation from the monitor meets your manufacturer guidelines for a POS STEMI ECG, patients should be transported to the closest and most appropriate STEMI Receiving Center (SRC) depending on patient preference and cardiac catheterization lab availability.
2. Manufacturer guidelines for a POS STEMI ECG
 - a. Lifepak 15: ***Meets ST Elevation MI Criteria***
 - b. Zoll: ***STEMI***
3. Send a STEMI Alert through Pulsara containing a picture of the POS STEMI ECG within 10 minutes of interpretation.
4. Follow-up the Pulsara STEMI Alert with Base Hospital contact.
5. Cath lab activation will be at the discretion of the physician reviewing the Pulsara Alert. If no image is available cath lab activation is not recommended if:
 - a. The ECG is poor quality
 - b. The patient has a pacemaker
 - c. The underlying rhythm is Atrial Flutter
 - d. The heart rate is above 140
6. Paramedics are to ask the patient if they have a cardiologist and report the information to the base hospital.
7. POS STEMI ECGs will be handed to the receiving care team.

E. Other ECGs

1. If an ECG is obtained by a physician and the interpretation on the ECG is positive for STEMI, the patient will be treated as a positive STEMI.

2. If the ECG is obtained by a physician and the interpretation on the ECG is not positive for STEMI, but the physician is stating ***it is*** a STEMI: perform a repeat ECG once the patient is in the ambulance.
 - a. If EMS ECG is a POS STEMI ECG, transport to the SRC as a STEMI Alert.
 - b. If EMS ECG is negative for STEMI, transport to the SRC, however no STEMI alert will be activated.
 3. The original ECG shall be obtained and accompany the patient.
 4. The original ECG will be scanned, or a picture will be obtained and added as an attachment to the Ventura County electronic Patient Care Report (VCePCR), in addition to being hand delivered to the receiving care team.
- G. Documentation
1. VCePCR and cardiac monitor data transfer will be completed per VCEMS policy 1000.

INTERPRETATION FROM THE MONITOR MEETS THE MANUFACTURER GUIDELINES FOR A POS STEMI ECG



PHYSICIAN OBTAINED ECG

