
12-LEAD ECG PROGRAM

Introduction – Alameda County ALS provider agencies desiring to perform the skill of 12-lead ECG must submit a 12-lead ECG training program and a Quality Improvement Plan to the EMS Agency for approval at least 30 days prior to implementation of the program.

1. **12-LEAD ECG TRAINING PROGRAM CURRICULUM** – Prehospital personnel authorized to perform 12-lead ECGs must complete a training program approved by the EMS Agency. The training program should be configured to provide at least 8 hours of training to paramedics and 3 hours of training to EMTs.

Paramedic and EMT Curriculum must include at a minimum:

- Review of Alameda County EMS Policies and Procedures
 - 12-lead ECG Procedure, including STEMI Activation and Transmission
 - Chest Pain / Acute Myocardial Infarction Treatment Policy
- ECG Acquisition – leads, lead placement and skin preparation
- Hands-on demonstration of competency in 12-lead ECG acquisition
- Artifact recognition and methods to minimize artifact
- Acute MI and Acute Coronary Syndrome

Additionally, Paramedic Curriculum must also include:

- Review of ECG waves, complexes, intervals and segments
- ST-segment analysis
- ST-elevation imposters
- Case studies
- Any other technical or protocol considerations

2. QUALITY IMPROVEMENT PLAN

Data Collection - The ALS provider agency must develop a method for collecting data that is compatible with their existing data collection process.

Data Collection must include at a minimum:

- A copy of the 12-lead ECG incorporated into the prehospital patient care record or available as an additional document to the record. Each ECG done should have at a minimum documentation of patient age and patient initials on the ECG.
- Transmission to STEMI Receiving Center (yes/no)
- STEMI Activation (yes/no)
- Documentation of computerized machine interpretation
- Documentation of paramedic interpretation

Quality Improvement

QI evaluation must include, as a minimum:

- Compliance to Patient Care Policies and Procedures
- Timeliness of ECG acquisition
- Quality of ECG tracings
- STEMI Activation review
- Completeness of documentation on patient care record