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