

## 7.10 12-LEAD ELECTROCARDIOGRAM PROCEDURE

### INDICATIONS

Any patient with known or suspected Acute Coronary Syndrome (ACS). Examples:

- Sub-sternal pain
- Discomfort or tightness radiating to the jaw, left shoulder or arm
- Nausea
- Diaphoresis
- Dyspnea
- Anxiety
- Syncope/dizziness
- Other “suspicious symptoms”
- Known treatment for ACS

### PROCEDURE

1. Attach EKG leads to the patient (limb leads to the upper arms, ankles and six chest leads) and perform EKG.
  - V1: right 4th intercostal space
  - V2: left 4th intercostal space
  - V3: halfway between V2 and V4
  - V4: left 5th intercostal space, mid-clavicular line
  - V5: horizontal to V4, anterior axillary line
  - V6: horizontal to V5, mid-axillary line
  - V4R: right 5th intercostal space, mid-clavicular line (use in all suspected inferior MI's for establishing appropriateness for administering NTG or Morphine) Any Lead II, III AVF ST elevation shall receive V4R prior to administration of NTG or Morphine.
2. Field personnel must input patient's age PRIOR to acquiring 12-lead

### EKG CRITERIA FOR STEMI

- Convex, “tombstone,” or flat ST segment elevation of more than 1 mm (one small box) in two or more contiguous leads.
- EKG machine interpretation “\*\*\*ACUTE STEMI\*\*\*” or similar wording.
- If the EKG indicates an ST elevation MI by either of the above methods, transport to an approved STAR Cardiac Receiving Center according to Policy 5000 Destination.
- Provide early notification so the receiving facility may initiate internal STEMI activation protocol.
- Transmit the EKG (if capable) to the receiving facility.
- INCLUDE THE FOLLOWING INFORMATION IN YOUR REPORT:
  - Age and sex
  - Interpretation of the 12-lead EKG (leads, amount of ST elevation in millimeters, “confidence” in your 12-lead assessment)

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- Location of reciprocal changes (if applicable)
- Symptoms (including presence or absence of chest pain)
- Presence of new left bundle branch block. Presence of imposters (early repolarization left bundle branch block, left ventricular hypertrophy, pericarditis or paced rhythms)
- Significant vital signs and physical findings
- Attach a copy of the EKG to the hospital copy and the file copy of the PCR
- Serial 12-Lead EKGs en-route are encouraged.