7.10 12-LEAD ELECTROCARDIOGRAM PROCEDURE

INDICATIONS
Any patient with known or suspected Acute Coronary Syndrome (ACS). Examples:
- Substernal 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. Input the following MANDATORY patient information PRIOR to acquiring 12-lead EKG:
   a) Patient Last Name + First Initial
   b) Gender
   c) Age
   d) Under the patient ID field, list ambulance unit number. List as “SFFD 74,” etc. to
      avoid confusion between ambulance unit number and patient age.

2. 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 Nitroglycerin or
     Morphine) Any Lead II, III AVF ST elevation shall receive V4R prior to
     administration of Nitroglycerin or Morphine.

3. Serial 12-Lead EKGs en-route are encouraged.

STEMI EKG CRITERIA
- If the EKG indicates an ST elevation MI by either of the methods below, transport to an
  approved STAR Cardiac Receiving Center according to Policy 5000 Destination.
  - Convex 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.
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- Provide early notification to the STAR facility per Policy 3020 Field to Hospital Communications. Transmit the EKG (if capable) to the receiving facility.

DOCUMENTATION
- MANDATORY labeling of ALL 12-Lead EKGs with the four patient identifiers listed under procedures.
- PCR:
  - Age and gender
  - Interpretation of the 12-lead EKG (leads, ST elevation in millimeters)
  - Location of reciprocal changes (if applicable)
  - Symptoms (including presence or absence of chest pain)
  - Significant vital signs and physical findings
  - Attach a copy (or electronic equivalent) of the EKG to the hospital copy and the file copy of the PCR