

**12-Lead EKG**

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Approval: John Poland – Executive Director

Next Review: 07/2028

**INDICATIONS**

12-lead EKG procedures shall be performed on pts who present with one or more of the following:

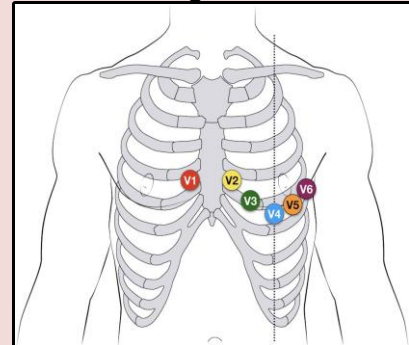
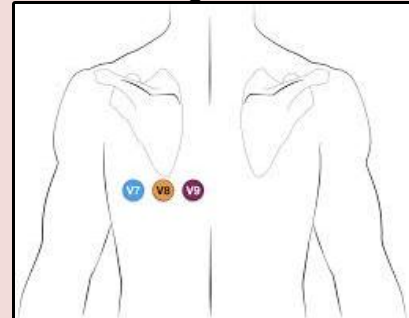
- Sign/symptoms suggestive of acute coronary syndrome (ACS) such as:
  - Non-traumatic chest or upper abdominal discomfort
  - Acute generalized weakness
  - Syncope/near-syncope
  - Dyspnea
- Cardiac dysrhythmias on 4-lead EKG
- ROSC following cardiac arrest

**PRE-PROCEDURE**

- Assess vital signs including SpO<sub>2</sub>
- Administer O<sub>2</sub> as indicated by clinical condition

**PROCEDURE**

- Prepare EKG monitor and connect 12-lead cables
- Utilize packaged electrodes designed for single pt use (not bulk)
- Prep skin as necessary (e.g. wiping with 4x4 gauze, shaving)
- Enter, at a minimum, pt's age, gender, and last name/first initial into the cardiac monitor
- Apply chest leads using the landmarks indicated on **Diagram A**
- While acquiring the 12-lead EKG:
  - Position pt away from 60hz RF noise (light switches, smartphones, LED lights, etc.)
  - Position pt supine, or semi-fowler with their arms at their side and legs uncrossed
  - Instruct pt to breath normally and remain still
  - Don't converse with or touch pt during acquisition
- Interpret the EKG findings
- If isoelectric line has significant artifact or machine reads "poor data quality" (or equivalent), attempt to reacquire a clean 12-lead EKG if pt condition allows
- If a posterior 12-lead EKG is indicated, move leads V4 – V6 from the chest and apply posteriorly as indicated in **Diagram B**. Print the 12-lead and manually label leads V4 – V6 as V7 – V9

**Diagram A****Diagram B****POST-PROCEDURE**

- 12-lead EKG's meeting STEMI criteria shall be transmitted to the appropriate facility (closest hospital or STEMI Receiving Center depending on incident specific circumstances) as soon as possible if transmission capabilities are available
- For pts with suspected ACS, serial 12-lead EKGs should be obtained if the pt's clinical status changes or if EKG changes are noted on the cardiac monitor, and every 15 minutes if transport times are long
- Copies of 12-lead EKGs shall be provided to the receiving hospital physician upon EMS arrival, left at the receiving hospital at time of pt delivery, and attached to the EMS pt care report (PCR)