

## 12-Lead ECG



### Paramedic/ALS Required

**Aliases:** EKG, 12 lead

**Indications:**

1. A 12-lead ECG is indicated on patients exhibiting any of the following signs/symptoms:
  - A. Chest pain or pressure
  - B. Upper abdominal pain
  - C. Syncope
  - D. Shortness of breath
  - E. Pain/discomfort which are often associated with cardiac ischemia:
    - a. Jaw, neck, shoulder, left arm or other presentations; unless no other symptoms exist and the cause of the specific pain can be identified with a traumatic or musculoskeletal injury.
    - b. If there is any doubt about the origin of the pain/discomfort, or the presentation seems atypical for the mechanism, a 12-lead should be performed.
2. Patients exhibiting the following signs/symptoms should have a 12-lead ECG performed if the etiology of the illness is indicative of an Acute Coronary Syndrome or the etiology of the illness is indeterminate:
  - A. Nausea
  - B. Vomiting
  - C. Diaphoresis
  - D. Dizziness
  - E. Patient expression of “feelings of doom”
3. A 12-lead ECG may be performed based on the clinical judgment of the paramedic even in the absence of the above signs/symptoms.

**Procedure:**

1. Follow **General Pre-hospital Care-Treatment Protocol**.
2. Perform 12-lead ECG per manufacturer guidelines.
3. When a STEMI (ST Elevation Myocardial Infarction) is identified by ECG and confirmed by the paramedic designated as the team leader, notification of the destination hospital will occur **as soon as practical so the** Cath Lab activation process can begin. At the beginning of the report to the hospital EMS personnel should say, “STEMI Alert.” Once the hospital has acknowledged the crew member the words “STEMI Alert” should be repeated and the remainder of the report given. In addition, the crew will identify the patient’s cardiologist (if they have one) or the primary care physician (if they do not have a cardiologist). Once obtained this information will be shared with the receiving hospital during their radio report. The hospital will activate their Cath Lab process unless there is conflicting evidence to not activate (i.e.

hospital receives and reviews ECG concurrently and the hospital does not agree with paramedic STEMI diagnosis; patient contraindications; or refusals of care).

4. The STEMI Report relayed to the receiving facility should include the following:
  - A. Location of MI, "ST elevation, consider \_\_\_\_\_injury".
  - B. Time of onset of the chest pain if present.
  - C. Current level of pain.
  - D. Cardiac history (previous MI, CHF, CABG, Angioplasty or Stent).
5. Transport patients per GCMCA transport protocol.
6. Repeat 12 Lead is indicated for prolonged transports or changes in condition.