

12 Lead EKG

Prehospital 12-lead ECG acquisition (with relay of results to the receiving hospital) improves time to treatment for acute myocardial infarction. The purpose of this policy is to insure that prehospital 12-lead recordings are performed in a responsible manner, coordinated with prehospital ALS providers and medical control, and monitored by quality improvement and evaluation procedures.

Indications:

1. A 12 EKG, if available, must be performed on patients exhibiting any of the following signs/symptoms:
 - a. Chest pain or pressure
 - b. Upper abdominal pain
 - c. Syncope
 - d. Shortness of breath (not including asthma or COPD)
 - e. Pain/discomfort often associated with cardiac ischemia
 - i. Jaw, neck, shoulder, left arm or other presentation; unless no other symptoms exist and the cause of the specific pain can be identified with a traumatic or musculoskeletal injury.
 - ii. 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.
 - f. Patients exhibiting the following signs/symptoms should have a 12 lead EKG performed if the etiology of the illness is indicative of an Acute Coronary Syndrome or the etiology of the illness is indeterminate:
 - i. Nausea
 - ii. Vomiting
 - iii. Diaphoresis
 - iv. Dizziness
 - v. Patient expression of “feelings of doom”
 - g. A 12 lead may be performed based on the clinical judgment of the paramedic even in the absence of the above signs/symptoms.

Pre-Medical Control

1. Follow **General Pre-hospital Care Protocol**.
2. Perform 12-lead ECG per manufacturer guidelines.
3. Report if acute MI is suspected, as indicated by 12 lead device.
4. Promptly relay either the 12-lead findings via MCA approved communications system or transmit 12-lead to the receiving facility.
5. Agencies in cooperation with Hospitals with 12-lead ECG pre-hospital receiving capability should have the relay done electronically immediately upon completion of the ECG in the following conditions:
 - a. ST” elevation \geq 1mm in 2 contiguous leads
 - b. Chest pain patient with left bundle branch block

Michigan
General Procedures

12 LEAD EKG POLICY/PROCEDURE

Date: July 31, 2009

Page 2 of 2

- c. EMS personnel request assistance by hospital for interpretation of ECG
- d. Hospital requests ECG be sent.
6. The Acute MI Report relayed to the receiving facility should include the following:
 - a. *** Acute MI Suspected ***
 - b. Location of MI, “ST elevation, consider _____ injury”
 - c. Time of onset of the Chest Pain, if present.
 - d. Current level of pain.
 - e. Cardiac history (previous MI, CHF, CABG, Angioplasty or Stent)
 - f. Presence of possible indicators of False Positive ECG (Tachyarrhythmia, left bundle branch block, Pacemaker, wide complex QRS, noisy positive ECG after previous negative ECG)
 - g. Name of patient’s cardiologist (if known).
7. Transport patients per MCA transport protocol.