



## 12-LEAD ELECTROCARDIOGRAPHY

### INDICATION:

- Patient suspected of having myocardial infarction, including:
  - Known history of coronary heart disease with chest discomfort, shortness of breath, or syncope-weakness.
  - Chest discomfort (unrelated to injury or strain) as chief symptom.
  - Radiation of chest pain to arm, shoulder, neck, jaw or back.
  - Diaphoresis.
  - Age > 45 years, male or female, with chest pain or diaphoresis.
  - History of cigarette use with chest pain as chief complaint.
  - History of hypertension with chest pain with chest pain as chief complaint.
  - History of diabetes with chest pain as chief complaint.

### CONTRAINDICATIONS (RELATIVE):

- Uncooperative patient or patient refuses 12-lead.
- Situations in which a delay to obtain ECG would compromise care of the patient in the field, such as cardiopulmonary arrest, acute respiratory failure, blood pressure < 90 systolic, altered level of consciousness.

### PROCEDURE:

- Complete initial assessment and stabilizing treatment (DO NOT DELAY TREATMENT FOR 12-LEAD). May acquire 12-Lead at incident location or in vehicle just prior to beginning transport.
- Place precordial lead electrodes and acquire tracing as per manufacturer's directions.
- Relay ECG interpretation to base hospital.
- Transmit ECG tracings that are positive for acute MI before arrival to receiving Cardiovascular Receiving Center as an electronic attachment or photograph attached to PCR
- If defibrillation or synchronized cardioversion are necessary, place paddles or defibrillation pads, removing 12-lead patches if necessary.

### DOCUMENTATION:

- Document obtaining 12-Lead and interpretation on prehospital care report (PCR).
- Attach or upload a copy of 12-lead to PCR.

### NOTES:

- Presentation of heartburn, pleuritic or musculoskeletal chest pain does not rule out heart disease or acute MI.
- Do not need to repeat 12-lead performed at clinic or other similar medical setting.
- Machine interpretation of suspected MI may not be accurate in presence of paced rhythms, bundle branch blocks, and certain tachycardia rhythms (e.g., SVT, atrial flutter). When communicating machine interpretation to base hospital, paramedics should advise base of paced / BBB / tachycardia rhythms.
- Base Hospital contact required for patients who refuse BLS or ALS transport after having a 12-lead performed in the field.

Approved:

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