



## Section 14: Appendix 2: Medical Procedures

### SECTION 14: 12- LEAD CARDIAC MONITORING

E	EMT	E
A	AEMT	A
P	PARAMEDIC	P

INDICATIONS	SIGNS AND SYMPTOMS	CONTRAINDICATIONS
<ul style="list-style-type: none"> <li>• Suspected cardiac patient</li> <li>• Suspected tricyclic overdose</li> <li>• Electrical injuries</li> </ul>	<ul style="list-style-type: none"> <li>• Any complaint of pain or discomfort between the nose and the navel</li> <li>• Chest pain / tightness</li> <li>• Chest discomfort</li> <li>• Chest discomfort relieved prior to arrival</li> <li>• Pulmonary edema</li> <li>• Palpitations</li> <li>• Irregular heartbeat</li> <li>• Syncope</li> <li>• Dizziness</li> <li>• Unexplained diaphoresis</li> <li>• Dyspnea</li> <li>• Weakness / numbness</li> <li>• HR &lt; 50 or &gt; 120</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient training</li> </ul>

#### Placement of the “V” Leads

- V1:** 4<sup>th</sup> ICS – right of the sternum
- V2:** 4<sup>th</sup> ICS – left of the sternum
- V3:** Between V2 and V4
- V4:** 5<sup>th</sup> ICS midclavicular
- V5:** Between V4 and V6
- V6:** Even with V4 midaxillary

1. Follow the Universal Patient Care Protocol.
2. Place the patient in a position of comfort and explain the procedure.
3. Apply the Limb and V Leads to the patient, protecting patient privacy.
4. Enter patient information.
5. Avoid patient movement and disturbance of EKG Leads.
6. Press 12 – LEAD button. Allow monitor to analyze, interpret, and print rhythm strip.
7. Make appropriate connections to transmission device and press TRANSMIT button to send EKG rhythm strip to hospital via telemetry.

#### KEY POINTS

- A 12-Lead EKG should be performed on any patient with a complaint that may be cardiac in origin.
- Protect the patient’s modesty.
- The 12-Lead ECG should be acquired **prior** to medication administration (except oxygen) and extrication of the patient.
- If the patient is having an acute MI, contact the receiving hospital as soon as possible.
- The paramedic should give one copy of the 12-Lead EKG to the ED physician / nurse immediately upon your arrival, and attach a second copy to the run report.
- EKG adhesive patches should remain on the patient for consistent lead placement with follow up EKGs, but should be removed before defibrillation patches are applied if necessary.
- The monitor should remain on the patient for continuous cardiac monitoring enroute.

*Perform 12 Lead EKG on patients with any discomfort between their nose and navel, abdominal pain, diabetics, patients over 50, altered mental status, respiratory distress, and S&S of stroke.*

**EMT’S AND ADVANCED EMT’S ARE PERMITTED TO PLACE LEADS ON THE PATIENT TO OBTAIN AND / OR TRANSMIT A 12-LEAD EKG**