



Jackson Hole Fire/EMS Operations Manual

Approved by: _____

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Title: **Procedure Guidelines:
12-Lead EKG**

Division: 17

Article: 2.14

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12-LEAD EKG (Procedure Guidelines)

SCOPE OF PRACTICE

All EMT-Intermediates and Paramedics shall operate within their authorized Scope of Practice as limited to those skills and medication approved for use by the Physician Medical Director and Physician Task Force on Pre-Hospital Care as approve and authorized by the Wyoming Board of Medicine

Scope of Practice: EMT Intermediate, Paramedic

PURPOSE:

To obtain a diagnostic quality 12-Lead EKG for the patient with a suspected acute cardiac event

INDICATIONS:

- Chest pain or pressure in any patient over age 20, or previous history of cardiac problems
- Syncopal episode in any patient over age 12
- Unexplained respiratory distress
- Atypical cardiac pain (i.e. shoulder, arm, or jaw pain in absence of chest pain, especially in patients with past cardiac history or irregular pulse)
- Chest pain in patients with history of illicit drug use such as cocaine and methamphetamine

PRECAUTIONS:

- Care must be taken to avoid an unnecessary extension of scene time
- Diagnostic EKG changes may or may not be present in the patient experiencing an acute myocardial infarction. Patients on whom a 12-Lead EKG is performed should be strongly encouraged to accept transport by ambulance to the hospital

PROCEDURE:

- Turn monitor "ON"
- Assure that the limb and precordial leads are appropriately connected to the monitor
- Prepare patient's skin for electrode placement by:
 - Shaving excessive hair at the electrode site
 - Cleaning oily or dirty skin
 - Drying skin in diaphoretic patients
- Avoid locating electrodes over tendons and major muscle masses
- Apply limb and precordial leads as described below

- Encourage the patient to relax all muscles and remain as still as possible
 - Prevent any tension on ECG cable
 - Avoid acquiring ECG in moving vehicle if possible
- Press the 12 lead button
- Enter age of the patient and push knob in
- Acquisition takes approximately 12 seconds
- Results will automatically print
- Relay results to medical control

LEAD PLACEMENT:

Limb lead placement

- RA – right arm
- LA – left arm
- RL – right leg
- LL – left leg

Precordial lead placement

- V1 – fourth intercostal space to the right of the sternum
- V2 – fourth intercostal space to the left of the sternum
- V3 – directly between leads V2 and V4
- V4 – left fifth intercostal space, midclavicular line
- V5 – level with V4, left anterior axillary line
- V6 – level with V5, left midaxillary line

