12-Lead ECG Acquisition

EMT/ADVANCED EMT/PARAMEDIC STANDING ORDER

Obtain 12 lead ECG with baseline vitals within 10 minutes if available and practical. Transmit per local guidelines.

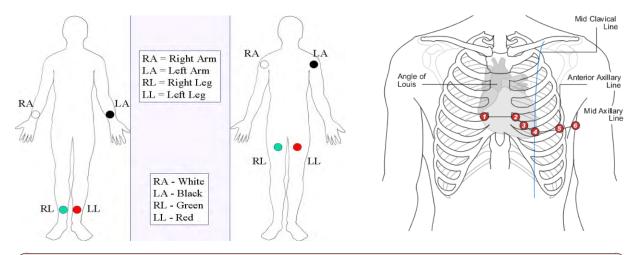
INDICATIONS

- Congestive Heart Failure/Pulmonary Edema.
- Dysrhythmias.
- Suspected Acute Coronary Syndrome.
- Syncope.
- Shortness of breath.
- Stroke/CVA.
- Cardiac Arrest with Return of Spontaneous Circulation (ROSC).

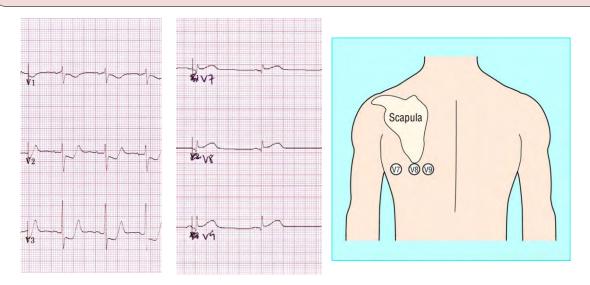
PROCEDURE

- 1. Prepare ECG Monitor and connect cable with electrodes.
- 2. Properly position the patient (supine or semi-reclined).
- 3. Enter patient information (e.g., age, gender, name) into monitor, when able.
- 4. Prep chest as necessary, (e.g., hair removal, skin prep pads).
- 5. Apply chest and extremity leads using recommended landmarks:
 - RA Right arm or shoulder.
 - LA Left arm or shoulder.
 - RL Right leg or hip.
 - LL Left leg or hip.
 - V1 4TH intercostal space at the right sternal border.
 - V2 4TH intercostal space at the left sternal border.
 - V3 Directly between V2 and V4.
 - V4 5th intercostal space midclavicular line.
 - V5 Level with V4 at left anterior axillary line.
 - V6 Level with V5 at left midaxillary line.
- Instruct patient to remain still.
- 7. Aguire the 12 lead ECG.
- 8. If 12 lead ECG indicates a STEMI (e.g., ECG identifies ***Acute MI Suspected*** and/or Paramedic interpretation) transport patient to the most appropriate facility in accordance with local STEMI guidelines/agreements. Notify receiving facility of a "STEMI Alert".
- For patients with continued symptoms consistent with acute coronary syndrome, perform repeat ECGs, as indicated, during transport to evaluate for evolving STEMI.
- 10. Copies of 12 lead ECG labeled with the patient's name and date of birth should be left with the receiving hospital.
- 11. Document the procedure and time of the ECG acquisition in appropriate section of the Patient Care Record.





Consider posterior leads for suspected isolated posterior STEMI



PEARLS:

- Enter the patient's age for proper interpretation.
- When transmitting either include the patient's name or notify the receiving facility of the patient's identity.
- Be alert for causes of artifact: dry or sweaty skin, dried out electrodes, patient movement, cable movement, vehicle movement, electromagnetic interference, static electricity
- Dried out electrodes are a major source of artifact; keep in original sealed foil pouches; plastic bags are not sufficient. Use all the same kind of electrodes. Press firmly around the edge of the electrode, not the center.
- Sweaty patients should be dried thoroughly. Consider tincture of benzoin. Dry skin is especially problematic. Clean the site (e.g., alcohol prep pad) and gently abrade skin using a towel or 4x4 gauze.
- Check for subtle movement: toe tapping, shivering, muscle tension (e.g., hand grasping rail or head raised to "watch")