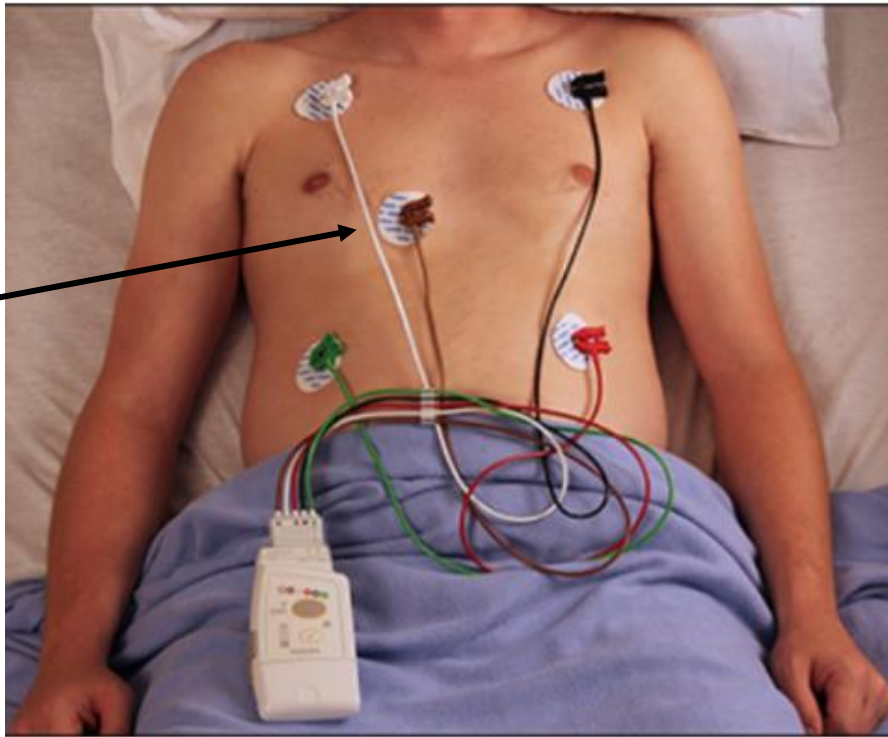


# Lead Placement for Cardiac Monitoring

V1- 4<sup>th</sup> intercostal space, right sternal border. Preferred placement for the chest (brown) lead.



*EBSCO, 5/2019*

## Five-lead system

In the five-lead system, the electrode positions generally remain constant.

- Place the right arm (RA) electrode near the right shoulder, close to the junction of the right arm and torso.
- Place the left arm (LA) electrode near the left shoulder, close to the junction of the left arm and torso.
- Place the right leg (RL) electrode below the level of the lowest rib on the right abdominal area.
- Place the left leg (LL) electrode below the level of the lowest rib on the left abdominal area.
- Place the chest (C) electrode in the fourth intercostal space to the right of the sternum for V<sub>1</sub>. Misplacement of this lead can change the rhythm tracing on the monitor and misdiagnosis can occur.

## Please consult your facility policy for the following processes, as applicable:

- Collaboration and communication with the Telemetry Monitor Technicians
- Telemetry box check-in and check-out procedure
- Telemetry box maintenance: changing batteries, cleaning
- Verification of right patient, right box, right tracing
- Nursing responsibility and action re: response to alarms
- Documentation

# Skin Preparation for ECG Monitoring

Steps	Rationale	Special Considerations
1. Prepare the skin by cleaning the area for application of electrodes. This can be done with soap and water.	Dirty, moist, oily, or lotioned skin will not conduct clear signals.	Soap and water is best for cleansing. Alcohol can be drying to the skin.
2. Thoroughly dry the skin.	Electrodes will not adhere well to moist skin.	
3. Abrade skin using a washcloth or dry gauze pad	Removes dead skin cells which interfere with impulse transmission.	
4. Clip hair if needed.	Hair will interfere with conduction and prevents the electrode from adhering well to the skin.	Do not shave the skin, as this can irritate.
5. Remove backing from pre-gelled electrode and check for moistness.	Gel can dry out in storage. Do not use if it is dry.	Gel must be moist to allow good impulse conduction.
6. Apply electrodes to sites.	Avoid placing electrodes over the following: <ol style="list-style-type: none"> <li>1. Sites with excessive hair; clip prior to applying electrodes</li> <li>2. Scar tissue</li> <li>3. Skin folds</li> <li>4. Bony protuberances</li> <li>5. Areas of erythema</li> <li>6. Lesions of any kind</li> <li>7. Pacemakers</li> </ol>	See Diagram for proper lead placement.  <b>Placement must be precise for accurate lead assessment data.</b>
8. Press down along the edges of the pad to secure the patch to the skin. Do not press directly over the gel pad area.	Assures a good seal.	Attach the cable leads to electrodes prior to applying electrodes to chest if cable leads attach by punch snap.
9. Change electrodes daily, after bathing, if the ECG tracing is poor, or per unit protocol.	If the gel dries out, the electrodes will not conduct well.	