

King Saud University		Application of Adult Health Nursing
College of Nursing		
Medical Surgical Nursing Department		<b>NURS, 317</b>

### Observation Checklist for Obtaining An Electrocardiogram (ECG)

Student Name:

Academic Number:

Day/ date:

No	Steps of Procedure	Mark	Skills		Comment
			Correct	Incorrect/ not done	
1	Verify the order for an ECG on the patient's medical record.	0.5			
2.	Gather all equipment ( ECG Machine, K-Y Gel,) and bring to bedside.	0.5			
3.	<ul style="list-style-type: none"> <li>Perform hand hygiene and</li> <li>Put on PPE, if indicated.</li> </ul>	1.0			
4.	Identify the patient	1.0			
5.	<ul style="list-style-type: none"> <li>Close curtains around bed and close the door to the room, if possible.</li> </ul>	1.0			
	<b><u>Explain the procedure to the patient.</u></b>				
	<ul style="list-style-type: none"> <li>Tell the patient that the test records the heart's electrical activity, and it may be repeated at certain intervals.</li> </ul>	0.5			
	<ul style="list-style-type: none"> <li>Emphasize that no electrical current will enter his or her body.</li> </ul>	0.5			
	<ul style="list-style-type: none"> <li>Tell the patient the test typically takes about 5 minutes.</li> </ul>	0.5			
	<ul style="list-style-type: none"> <li>Ask the patient about allergies to adhesive, as appropriate.</li> </ul>	0.5			
6.	Place the ECG machine close to the patient's bed, and plug the power cord into the wall outlet.	1.0			
7.	If the bed is adjustable, raise it to a comfortable working height, usually elbow height of the caregiver.	1.0			
8.	<ul style="list-style-type: none"> <li>Have the patient lie supine in the center of the bed with the arms at the sides. Raise the head of the bed if necessary to promote comfort.</li> </ul>	1.0			
	<ul style="list-style-type: none"> <li>Expose the patient's arms and legs, and drape appropriately.</li> </ul>	1.0			
	<ul style="list-style-type: none"> <li>Encourage the patient to relax the arms and legs.</li> </ul>	1.0			
	<ul style="list-style-type: none"> <li>If the bed is too narrow, place the patient's hands under the buttocks to prevent muscle tension.</li> </ul>	1.0			
	<ul style="list-style-type: none"> <li>Also use this technique if the patient is shivering or trembling.</li> </ul>	1.0			
	<ul style="list-style-type: none"> <li>Make sure the feet do not touch the bed's footboard.</li> </ul>	1.0			

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9.	• Select flat, fleshy areas on which to place the electrodes.	1.0			
	• <b>Avoid muscular and bony areas.</b>	1.0			
	• <b>If the patient has an amputated limb, choose a site on the stump.</b>	1.0			
10.	• If an area is excessively hairy, clip the hair.	1.0			
	• <b><u>Do not shave hair.</u></b>	2.0			
	• Clean excess oil or other substances from the skin with soap and water and dry it completely.	1.0			
11.	• Apply the limb lead electrodes. The tip of each lead wire is lettered and color coded for easy identification.	1.0			
	• <b>The white or RA</b> lead goes to the right arm;	1.0			
	• <b>the green or RL</b> lead to the right leg;	1.0			
	• <b>the red or LL</b> lead to the left leg;	1.0			
	• <b>the black or LA</b> lead to the left arm.	1.0			
	• Peel the contact paper off the self sticking disposable electrode and apply directly to the prepared site, as recommended by the manufacturer.	1.0			
	• Position disposable electrodes on the legs with the lead connection pointing superiorly.	1.0			
12.	• Connect the limb lead wires to the electrodes.	1.0			
	• Make sure the metal parts of the electrodes are clean and bright.	1.0			
13.	• Expose the patient's chest. Apply the precordial lead electrodes.	1.0			
	• The tip of each lead wire is lettered and color coded for easy identification.	1.0			
	• <b>The brown or V1 to V6 leads</b> are applied to the chest.	1.0			
	• Peel the contact paper off the self sticking, disposable electrode and apply directly to the prepared <b>site, as recommended by the manufacturer.</b>	1.0			
	<b>Position chest electrodes as follows</b>				
	• <b><u>V1</u></b> : Fourth intercostal space at right sternal border	1.0			
	• <b><u>V2</u></b> : Fourth intercostal space at left sternal border	1.0			
	• <b><u>V3</u></b> : Halfway between V2 and V4	1.0			
	• <b><u>V4</u></b> : Fifth intercostal space at the left midclavicular line	1.0			
	• <b><u>V5</u></b> : Fifth intercostal space at anterior axillary line (halfway between V4 and V6)	1.0			
	• <b><u>V6</u></b> : Fifth intercostal space at midaxillary line, level with V4	1.0			

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14.	<ul style="list-style-type: none"> <li>Connect the precordial lead wires to the electrodes.</li> <li>Make sure the metal parts of the electrodes are clean and bright.</li> </ul>	1.0 1.0			
15	<ul style="list-style-type: none"> <li>After the application of all the leads, make sure the paperspeed selector is set to the standard 25 m/second and that the machine is set to full voltage.</li> </ul>	1.0			
16.	<ul style="list-style-type: none"> <li>If necessary, enter the appropriate patient identification data into the machine.</li> </ul>	1.0			
17.	<ul style="list-style-type: none"> <li>Ask the patient to relax and breathe normally.</li> <li><b>Instruct the patient to lie still and not to talk while you record the ECG.</b></li> </ul>	1.0 2.0			
18.	<ul style="list-style-type: none"> <li>Press the AUTO button.</li> <li>Observe the tracing quality.</li> <li>The machine will record all 12 leads automatically, recording 3 consecutive leads simultaneously.</li> <li>Some machines have a display screen so you can preview waveforms before the machine records them on paper. Adjust waveform, if necessary.</li> <li>If any part of the waveform extends beyond the paper when you record the ECG, adjust the normal standardization to half-standardization and repeat. <b>Note</b> this adjustment on the ECG strip, because this will need to be considered in interpreting the results.</li> </ul>	1.0 1.0 1.0 1.0 2.0			
19.	<ul style="list-style-type: none"> <li>When the machine finishes recording the 12-lead ECG, remove the electrodes and clean the patient's skin, if necessary, with adhesive remover for sticky residue.</li> </ul>	1.0			
20.	<ul style="list-style-type: none"> <li>After disconnecting the lead wires from the electrodes, dispose of the electrodes.</li> <li>Return the patient to a comfortable position.</li> <li>Lower bed height and adjust the head of bed to a comfortable position.</li> </ul>	1.0 1.0 1.0			
21.	<ul style="list-style-type: none"> <li>Clean ECG machine per facility policy.</li> <li>If not done electronically from data entered into the machine, label the ECG with the patient's name, date of birth, location, date and time of recording, and other relevant information, such as symptoms that occurred during the recording</li> </ul>	1.0 1.0			
22.	<ul style="list-style-type: none"> <li>Remove additional PPE, if used.</li> <li>Perform hand hygiene.</li> </ul>	0.5 0.5			
23.	Document the procedure and report the changes	1.0			
<b>Total Score</b>		<b>60</b>			

**Evaluator's Name:**

**Signature:**