ECG Quiz PDF

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What is the primary purpose of an ECG?

- ◯ To measure blood pressure
- ◯ To measure the electrical activity of the heart
- ◯ To assess kidney function
- ◯ To evaluate lung function

Which of the following components are part of a standard ECG?

- ☐ P wave
- ☐ U wave
- ☐ QRS complex
- ☐ T wave

Explain the significance of the QRS complex in an ECG and what it represents in terms of cardiac physiology.

Which lead system is primarily used in a standard 12-lead ECG?

- ◯ Limb leads and chest leads
- ◯ Head leads and torso leads
- ◯ Neck leads and back leads
- ◯ Arm leads and leg leads

Which conditions can be indicated by changes in the ST segment of an ECG?

- [ ] Myocardinal infarction
- [ ] Pericarditis
- [ ] Atrial fibrillation
- [ ] Hyperkalemia

Describe the steps involved in preparing a patient for an ECG and the importance of correct lead placement.

What is the normal range for the heart rate as determined by an ECG?

- ◯ 40-60 beats per minute
- ◯ 100-120 beats per minute
- ◯ 120-140 beats per minute
- ◯ 60-100 beats per minute

What are common causes of artifacts in ECG readings?

- [ ] Patient movement
- [ ] Incorrect lead placement
- [ ] Low battery in the ECG machine
- [ ] Electrical interference

Discuss how an ECG can be used to diagnose atrrial fibrillation and the characteristic features seen on the ECG.

What does a prolonged QT interval on an ECG suggest?

- ◯ Hypercalcemia
- ◯ Right bundle branch block
- ◯ Sinus tachycardia
- ◯ Long QT syndrome

Which electrolyte imbalances can be detected through changes in an ECG?

- ☐ Hyperkalemia
- ☐ Hypernatremia
- ☐ Hyponatremia
- ☐ Hypokalemia

Explain the clinical significance of detecting a right bundle branch block on an ECG and how it appears.

Which wave on the ECG represents atrrial depolarization?

- ◯ P wave
- ◯ R wave
- ◯ T wave
- ◯ Q wave

Which of the following ECG changes might indicate left ventricular hypertrophy?

- [ ] Increased R wave amplitude in V5 and V6
- [ ] Prolongued QT interval
- [ ] ST segment depression
- [ ] Deep S wave in V1

Describe how myocardial infarction is identified on an ECG and the changes that occur over time.

What is the typical duration of a normal PR interval on an ECG?

- ◯ 0.04-0.08 seconds
- ◯ 0.20-0.24 seconds
- ◯ 0.24-0.30 seconds
- ◯ 0.12-0.20 seconds

Which of the following are considered arrhythmias detectable by ECG?

- [ ] Atrial flutter
- [ ] Sinus bradycardia
- [ ] Hypertension
- [ ] Ventricular tachycardia

Discuss the importance of calibration and standardization in ECG machines and how it affects the accuracy of the readings.

What is indicated by an inverted T wave on an ECG?

- ◯ Normal finding
- ◯ Hypercalcemia
- ◯ Atrial enlargement
- ◯ Myocardinal ischemia

Which conditions can cause a prolonged PR interval on an ECG?

- ☐ First-degree heart block
- ☐ Hypothyroidism
- ☐ Atrial fibrillation
- ☐ Hypercalcemia

Evaluate the significance of ECG in emergency medicine and its role in the rapid assessment of patients.

What does the T wave on an ECG represent?

- ◯ Atrial repolarization
- ◯ Ventricular depolarization
- ◯ Atrial depolarization
- ◯ Ventricular repolarization

What are potential clinical applications of an ECG?

- ☐ Diagnosing cardiac arrhythmias
- ☐ Assesssing lung function
- ☐ Evaluating heart valve function
- ☐ Monitoring the effects of cardiac medications

Analyze the limitations of ECG in diagnosing cardiac conditions and suggest ways to overcome these limitations.

What is the primary characteristic of a normal sinus rhythm on an ECG?

- ◯ Irregular heart rate
- ◯ Absence of P waves
- ◯ Inverted QRS complex
- ◯ Regular heart rate with a P wave before each QRS complex

Which factors can affect the accuracy of an ECG reading?

- ☐ Patient's age
- ☐ Lead misplacement
- ☐ Poor skin contact
- ☐ Ambient temperature

Explain the role of ECG in monitoring treatment efficacy for cardiac conditions and provide examples.