ECG Quiz

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Quiz Objective: This quiz aims to test your knowledge about ECG (Electrocardiogram) interpretation. This involves understanding the meaning of various waveforms and intervals and recognizing the ECG patterns associated with different heart conditions.

Instructions:

Read each question carefully. Choose the correct answer based on your knowledge and understanding of the subject.

The quiz consists of 20 multiple-choice questions. Four possible answers follow each question: A, B, C, and D. Check the box of the letter of your choice.

Score: 16

1. What does the P wave on an ECG represent?

- [ ] A. Ventricular depolarization
- [x] B. Atrial depolarization
- [ ] C. Ventricular repolarization
- [ ] D. Atrial repolarization

2. What does the QRS complex on an ECG represent?

- [x] A. Ventricular depolarization
- [ ] B. Atrial depolarization
- [ ] C. Ventricular repolarization
- [ ] D. Atrial repolarization

3. What does the T wave on an ECG represent?

- [ ] A. Ventricular depolarization
- [ ] B. Atrial depolarization
- [x] C. Ventricular repolarization
- [ ] D. Atrial repolarization

4. What is the normal range of the PR interval on an ECG?

- [x] A. 0.12 to 0.20 seconds

- [ ] B. 0.20 to 0.40 seconds
- [ ] C. 0.05 to 0.10 seconds
- [ ] D. 0.10 to 0.20 seconds

5. What heart condition is typically characterized by a sawtooth pattern on ECG?

- [ ] A. Ventricular fibrillation
- [ ] B. Atrial fibrillation
- [x] C. Atrial flutter
- [ ] D. Ventricular tachycardia

6. What does ST-segment elevation suggest on an ECG?

- [ ] A. Myocardial ischemia
- [ ] B. Myocardial infarction
- [ ] C. Pericarditis
- [x] D. All of the above

7. Which ECG changes are characteristic of hyperkalemia?

- [x] A. Peaked T waves
- [ ] B. Absent P waves
- [ ] C. Prolonged PR interval
- [ ] D. Shortened QT interval

8. Which heart block is characterized by progressively longer PR intervals until a QRS complex is dropped?

- [ ] A. First-degree AV block
- [ ] B. Second-degree AV block Mobitz I (Wenckebach)
- [x] C. Second-degree AV block Mobitz II
- [ ] D. Third-degree AV block

9. What does the U wave on an ECG represent?

- [ ] A. Ventricular depolarization
- [x] B. Atrial depolarization
- [ ] C. Late ventricular repolarization
- [ ] D. It has no clinical significance

10. What is the normal range of the QRS duration on an ECG?

- [ ] A. 0.10 to 0.20 seconds

- [x] B. 0.06 to 0.10 seconds
- [ ] C. 0.04 to 0.10 seconds
- [ ] D. 0.10 to 0.12 seconds

11. Which ECG changes are characteristic of hypokalemia?

- [x] A. Flattened T waves
- [ ] B. Peaked T waves
- [ ] C. Prolonged PR interval
- [ ] D. Shortened QT interval

12. What does a delta wave on an ECG suggest?

- [ ] A. Ventricular fibrillation
- [x] B. Wolff-Parkinson-White syndrome
- [ ] C. Atrial fibrillation
- [ ] D. Bundle branch block

13. Which arrhythmia is characterized by irregularly irregular rhythm and absent P waves?

- [ ] A. Ventricular fibrillation
- [ ] B. Atrial fibrillation
- [x] C. Atrial flutter
- [ ] D. Ventricular tachycardia

14. In a typical ECG tracing, which of the following intervals most indicates ventricular repolarization?

- [ ] A. PR interval
- [x] B. QT interval
- [ ] C. QRS complex
- [ ] D. ST segment

15. Atrial flutter typically presents with what "flutter" rate?

- [ ] A. 150-250 beats per minute
- [ ] B. 50-150 beats per minute
- [x] C. 250-350 beats per minute
- [ ] D. 350-450 beats per minute

16. Which conditions are characterized by a PR interval consistently longer than 0.20 seconds?

- [x] A. First-degree AV block
- [ ] B. Second-degree AV block Mobitz I (Wenckebach)
- [ ] C. Second-degree AV block Mobitz II
- [ ] D. Third-degree AV block

17. Torsades de pointes is a specific type of which of the following arrhythmias?

- [ ] A. Ventricular fibrillation
- [x] B. Ventricular tachycardia
- [ ] C. Atrial fibrillation
- [ ] D. Atrial flutter

18. Which of the following is a common cause of ST-segment depression on an ECG?

- [x] A. Myocardial infarction
- [ ] B. Myocardial ischemia
- [ ] C. Pericarditis
- [ ] D. Hyperkalemia

19. What is the significance of an inverted T wave on an ECG?

- [ ] A. It's a normal finding with no significance
- [x] B. It may indicate myocardial ischemia or infarction
- [ ] C. It signifies a bundle branch block
- [ ] D. It denotes ventricular hypertrophy

20. Which heart block is characterized by a complete dissociation between P waves and QRS complexes?

- [ ] A. First-degree AV block
- [ ] B. Second-degree AV block Mobitz I (Wenckebach)
- [ ] C. Second-degree AV block Mobitz II
- [x] D. Third-degree AV block

Scoring:

Each question is worth 1 point. Your total score will be the sum of all correct answers.
You will find the answer key of this quiz on the next page.

Answer Key:

1. B
2. A
3. C
4. A
5. C
6. D
7. A
8. B
9. C
10. B
11. A
12. B
13. B
14. B
15. C
16. A
17. B
18. B
19. B
20. D