

RED CROSS ADVANCED LIFE SUPPORT (ALS) PRACTICE EXAM (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. What does ST-segment elevation in leads V2 and V3 of ≥ 0.2 mV indicate?**
 - A. Stable angina
 - B. ST-Elevation Myocardial Infarction (STEMI)
 - C. Pneumothorax
 - D. Aortic dissection
- 2. What part of the ECG rhythm strip represents repolarization of the ventricular myocardial cells?**
 - A. P wave
 - B. QRS complex
 - C. T wave
 - D. U wave
- 3. What is the significance of T-wave inversion on an ECG in the context of ACS?**
 - A. Indicates hyperkalemia
 - B. Indicates myocardial ischemia
 - C. Indicates lung embolism
 - D. Indicates pericarditis
- 4. What intervention is appropriate for a post-cardiac arrest patient who cannot follow verbal commands?**
 - A. Only initiate medication therapy
 - B. Immediately transfer to a surgical unit
 - C. Obtain brain imaging and initiate targeted temperature management
 - D. Continue monitoring without further intervention
- 5. What is the subsequent dose of amiodarone for a patient in cardiac arrest?**
 - A. 150 mg
 - B. 300 mg
 - C. 75 mg
 - D. 600 mg

- 6. In a primary assessment, which diagnostic test is most urgent for Mr. Jenkins given his presentation?**
- A. Chest X-ray
 - B. Cardiac enzymes test
 - C. 12-lead ECG
 - D. Echocardiogram
- 7. After delivering an initial shock, what is the appropriate subsequent action?**
- A. Assess vital signs for 5 minutes
 - B. Continue searching for reversible causes
 - C. Change the defibrillator settings
 - D. Deliver a second shock immediately
- 8. How many seconds should Valerie check for breathing and a central pulse when assessing Mr. Goodman, who is unresponsive?**
- A. 5 seconds
 - B. 10 seconds
 - C. 15 seconds
 - D. 30 seconds
- 9. Which findings on ECG would be consistent with ST-segment elevation myocardial infarction (STEMI)?**
- A. Deep T-wave inversion
 - B. New ST-segment elevation in V2 and V3
 - C. Complete heart block
 - D. Ventricular fibrillation
- 10. What ECG finding suggests significant myocardial ischemia?**
- A. Normal ST segments
 - B. Tall T-waves
 - C. ST-segment depression
 - D. Widened QRS complex

Answers

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1. B
2. C
3. B
4. C
5. A
6. C
7. B
8. B
9. B
10. C

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Explanations

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1. What does ST-segment elevation in leads V2 and V3 of ≥ 0.2 mV indicate?

- A. Stable angina
- B. ST-Elevation Myocardial Infarction (STEMI)**
- C. Pneumothorax
- D. Aortic dissection

ST-segment elevation in leads V2 and V3 of ≥ 0.2 mV is a significant finding in an electrocardiogram (ECG) that indicates the presence of a ST-Elevation Myocardial Infarction (STEMI). This elevation suggests that there is an acute myocardial injury, typically caused by the occlusion of a coronary artery, leading to a lack of blood supply (ischemia) to the heart muscle. In the context of STEMI, this specific elevation in leads V2 and V3 points to the involvement of the anterior wall of the heart, which is supplied by the left anterior descending artery. These findings often necessitate immediate medical intervention, such as angioplasty or thrombolysis, to restore blood flow and minimize myocardial damage. Other conditions mentioned, such as stable angina, pneumothorax, and aortic dissection, do not typically present with this specific pattern of ST-segment elevation. Stable angina is characterized by chest pain that occurs with exertion but is relieved by rest, and it does not cause persistent ST-segment elevation. Pneumothorax may cause changes in the heart's positioning in the thoracic cavity but does not typically cause ST-segment elevation.

2. What part of the ECG rhythm strip represents repolarization of the ventricular myocardial cells?

- A. P wave
- B. QRS complex
- C. T wave**
- D. U wave

The T wave on an ECG rhythm strip is the part that represents the repolarization of the ventricular myocardial cells. During this phase, the cells, having completed the process of depolarization which is reflected by the QRS complex, are returning to their resting state. This is crucial as it prepares the myocardium for the next heartbeat. Repolarization is essential for the heart's electrical stability. A properly functioning T wave indicates that the myocardial cells are resetting appropriately after contraction, allowing for efficient and coordinated rhythms in subsequent beats. Abnormalities in the T wave can indicate various cardiac conditions, making it a vital component of cardiac monitoring. In contrast, the P wave reflects atrial depolarization, the QRS complex represents ventricular depolarization, and the U wave—when present—may indicate a potential electrolyte imbalance or other heart conditions, but it is not primarily associated with the standard repolarization process of the ventricles.

3. What is the significance of T-wave inversion on an ECG in the context of ACS?

- A. Indicates hyperkalemia
- B. Indicates myocardial ischemia**
- C. Indicates lung embolism
- D. Indicates pericarditis

T-wave inversion on an ECG is a significant finding in the context of acute coronary syndrome (ACS) because it is often indicative of myocardial ischemia. When the heart muscle does not receive adequate blood supply, it can lead to changes in the electrical activity of the heart, which is reflected on an ECG. T-wave inversions are indicative of the repolarization abnormalities in myocardial cells due to ischemia, particularly when the heart is experiencing stress or damage due to inadequate blood flow. This T-wave change suggests that the myocardial tissue is at risk or is currently suffering from decreased perfusion, which is a critical factor in diagnosing ACS and determining the appropriate intervention. In this scenario, recognizing T-wave inversion can guide healthcare professionals to expedite further evaluation and treatment, like administering medications or preparing for potential interventions such as angioplasty or coronary artery bypass grafting. The other options refer to different conditions that are associated with distinct ECG changes. Hyperkalemia primarily causes peaked T-waves, while lung embolism and pericarditis have their characteristic patterns on an ECG that do not typically include T-wave inversion linked to myocardial ischemia. Understanding the relationship between T-wave inversion and myocardial ischemia is key for effective assessment and management in cases of ACS.

4. What intervention is appropriate for a post-cardiac arrest patient who cannot follow verbal commands?

- A. Only initiate medication therapy
- B. Immediately transfer to a surgical unit
- C. Obtain brain imaging and initiate targeted temperature management**
- D. Continue monitoring without further intervention

In a post-cardiac arrest scenario, it's essential to evaluate the patient's neurological status, especially if they are unable to follow verbal commands. This lack of responsiveness can indicate potential neurological impairment, and immediate actions are necessary to mitigate further damage and optimize recovery chances. Initiating targeted temperature management is critical because it has been shown to improve neurological outcomes in patients who have suffered a cardiac arrest. By cooling the patient's body temperature to a specific range, the metabolic demands on the brain are reduced, and it helps protect the brain from the effects of ischemia or lack of blood flow. Obtaining brain imaging is also important because it allows healthcare providers to assess for any structural issues that may have arisen as a result of the cardiac arrest. Understanding the extent of any potential brain injury can guide further interventions and management. This approach is aligned with advanced life support protocols and best practices for post-arrest care, emphasizing the need for both neurological assessment and implementing therapeutic strategies to improve outcomes.

5. What is the subsequent dose of amiodarone for a patient in cardiac arrest?

A. 150 mg

B. 300 mg

C. 75 mg

D. 600 mg

In cases of cardiac arrest where amiodarone is indicated, the subsequent dose after the initial administration is 150 mg. This is especially relevant in situations where the patient remains in a persistent shockable rhythm, such as ventricular fibrillation or pulseless ventricular tachycardia. The rationale behind this dosing is to reinforce the antiarrhythmic effects required to stabilize the patient's heart rhythm and improve the chances of successful resuscitation. The initial dose of amiodarone during cardiac arrest is typically 300 mg, and it is administered as a first-line treatment for these life-threatening arrhythmias. If the desired outcome is not achieved, medical guidelines recommend repeating the dose, but at a reduced amount of 150 mg for subsequent attempts. This approach is designed to provide an effective yet safe level of medication, minimizing potential side effects while maximizing therapeutic benefit. Rescuers and healthcare providers must follow established guidelines for dosing in emergency situations to ensure effective treatment and adherence to best practices in Advanced Life Support.

6. In a primary assessment, which diagnostic test is most urgent for Mr. Jenkins given his presentation?

A. Chest X-ray

B. Cardiac enzymes test

C. 12-lead ECG

D. Echocardiogram

In the context of a primary assessment, obtaining a 12-lead ECG is the most urgent diagnostic test for Mr. Jenkins, especially if he is presenting with symptoms suggestive of a cardiovascular issue, such as chest pain, shortness of breath, or other distressing signs. The 12-lead ECG is crucial for rapidly identifying life-threatening arrhythmias, acute myocardial infarction, or other cardiac abnormalities that require immediate intervention. This diagnostic tool provides immediate insight into the heart's electrical activity, allowing healthcare professionals to assess the rhythm, rate, and any potential ischemic changes that may indicate ongoing cardiac distress. Given the prioritization of life-threatening conditions during the primary assessment phase, the 12-lead ECG should be performed promptly to guide further management decisions, such as medication administration or more invasive procedures if indicated. In contrast, a chest X-ray may provide valuable information about the heart and lungs but is not as urgent in the immediate management of heart conditions. Similarly, while cardiac enzyme tests and echocardiograms are important for diagnosing and managing cardiac events, they typically require more time to produce results and do not provide the same immediate clinical guidance as the 12-lead ECG. Thus, the ECG is prioritized for its immediacy.

7. After delivering an initial shock, what is the appropriate subsequent action?

- A. Assess vital signs for 5 minutes
- B. Continue searching for reversible causes**
- C. Change the defibrillator settings
- D. Deliver a second shock immediately

After delivering an initial shock in a cardiac arrest situation, it is crucial to assess the patient's rhythm and determine if a reversible cause is present. Searching for reversible causes involves looking for factors such as hypoxia, hypovolemia, acidosis, hypoglycemia, hyperkalemia, or other treatable conditions that could be contributing to the patient's cardiac arrest. By identifying and addressing these reversible causes, you increase the chances of restoring effective circulation and improving the patient's outcomes. Action such as changing the defibrillator settings is typically not necessary immediately after the first shock unless specifically indicated by the situation or the rhythm observed. Continuously monitoring vital signs for an extended period like five minutes without intervening may delay critical actions and interventions that can save a life. Delivering a second shock immediately without reassessing the rhythm does not follow the recommended protocols, which emphasize the need to evaluate the patient's status and rhythm before administering additional shocks.

8. How many seconds should Valerie check for breathing and a central pulse when assessing Mr. Goodman, who is unresponsive?

- A. 5 seconds
- B. 10 seconds**
- C. 15 seconds
- D. 30 seconds

In assessing an unresponsive patient like Mr. Goodman, it is crucial to check for breathing and a central pulse efficiently and accurately to determine the appropriate next steps for resuscitation. The recommended duration for checking these two vital signs is 10 seconds. This timeframe allows for a thorough assessment without delaying necessary interventions, such as initiating CPR if the patient is not breathing or does not have a pulse. Checking for breathing involves looking, listening, and feeling for any signs of respiration, while checking for a central pulse typically includes feeling for the carotid pulse. The 10-second duration strikes a balance; it is long enough to make an accurate assessment but short enough to minimize the time the patient might potentially be without appropriate care. Following this established timeframe is crucial to adhering to clinical guidelines and ensuring prompt lifesaving actions can be initiated if necessary.

9. Which findings on ECG would be consistent with ST-segment elevation myocardial infarction (STEMI)?

- A. Deep T-wave inversion
- B. New ST-segment elevation in V2 and V3**
- C. Complete heart block
- D. Ventricular fibrillation

The presence of new ST-segment elevation in leads V2 and V3 is a classic finding associated with ST-segment elevation myocardial infarction (STEMI). In the context of a myocardial infarction, the elevation of the ST segment indicates that there is a significant alteration in the cardiac tissue's electrical activity, typically due to ischemia related to occlusion in a coronary artery. Leads V2 and V3 are part of the precordial leads that provide insights into the electrical activity of the heart's anterior wall. When ST-segment elevation is observed in these leads, it often suggests that there is a blockage in the coronary artery supplying that specific region of the heart, leading to an acute myocardial infarction. This finding is critical for the timely diagnosis and management of STEMI, as it helps guide decisions related to reperfusion therapy, such as percutaneous coronary intervention (PCI). While other choices might reflect various cardiac conditions, they do not specifically indicate a STEMI. Deep T-wave inversions are typically seen in other scenarios, such as after myocardial ischemia but do not indicate STEMI. Complete heart block and ventricular fibrillation are severe arrhythmias that may arise as complications of myocardial infarction but do not specifically provide evidence

10. What ECG finding suggests significant myocardial ischemia?

- A. Normal ST segments
- B. Tall T-waves
- C. ST-segment depression**
- D. Widened QRS complex

The presence of ST-segment depression on an ECG is a significant indicator of myocardial ischemia. This finding suggests that there is a discrepancy between the blood supply to the heart muscle and the oxygen demand of that muscle, which can occur during conditions of stress such as angina or an impending myocardial infarction. When there is ischemia, it generally disrupts the normal electrical activity of the heart, resulting in changes reflected on the ECG. ST-segment depression specifically indicates that part of the heart is not receiving sufficient oxygen during the repolarization phase of the cardiac cycle. This finding can manifest as a downsloping or horizontal drop in the ST segment from the baseline and is often observed during physical exertion or stress testing in patients with coronary artery disease. In contrast, a normal ST segment reflects healthy myocardial perfusion, and tall T-waves can sometimes indicate hyperkalemia or other conditions, but are not definitive signs of ischemia. Widened QRS complexes can indicate a bundle branch block or other electrical conduction issues, but they do not specifically point to ischemia in the way that ST-segment depression does.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://redcrossals.examzify.com>

We wish you the very best on your exam journey. You've got this!

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