

# NCLEX Acute Coronary Syndrome Practice Exam (Sample)

## Study Guide



**Everything you need from our exam experts!**

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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 is the primary medication regimen anticipated for a patient with a suspected myocardial infarction?**
  - A. Oxygen, aspirin, and nitroglycerin**
  - B. Nitroglycerin, lorazepam, and morphine**
  - C. Aspirin, furosemide, and dopamine**
  - D. Aspirin, nitroprusside, and oxygen**
- 2. Which of the following best describes the role of nitric oxide in preventing atherosclerosis?**
  - A. It causes arterial dilation**
  - B. It inhibits cholesterol absorption**
  - C. It promotes clotting factors**
  - D. It stimulates muscle contraction**
- 3. Which interventional procedure may be necessary for a patient with significant coronary artery blockage?**
  - A. Coronary artery bypass graft (CABG)**
  - B. Endarterectomy**
  - C. Angioplasty only**
  - D. Transcatheter aortic valve replacement**
- 4. How is cardiac output defined in relation to heart function?**
  - A. As the average amount of blood ejected during one complete cardiac cycle**
  - B. As the product of stroke volume and heart rate**
  - C. As the electrical activity of the heart measured continuously**
  - D. As the mean arterial blood pressure multiplied by resting heart rate**
- 5. What parameter is crucial to monitor in a patient recovering from myocardial infarction?**
  - A. Blood glucose levels**
  - B. Troponin levels**
  - C. Creatinine levels**
  - D. Liver function tests**

**6. How does angiotensin II increase the workload of the heart?**

- A. By increasing the peripheral vascular resistance**
- B. By causing dysrhythmias as a result of hyperkalemia**
- C. By reducing the contractility of the myocardium**
- D. By stimulating the sympathetic nervous system**

**7. Which ECG finding is most indicative of prolonged coronary occlusion?**

- A. Sinus tachycardia**
- B. Pathologic Q wave**
- C. Prolonged PR interval**
- D. Fibrillatory P waves**

**8. What immediate intervention is required if a patient is unresponsive and suspected of having a heart attack?**

- A. Call for emergency help and begin CPR if there is no pulse**
- B. Administer nitroglycerin**
- C. Perform a secondary assessment**
- D. Wait until the patient regains consciousness**

**9. What are the primary goals of nursing care in a patient with ACS?**

- A. Maintain fluid balance and prevent infection**
- B. Increase physical activity and promote diet changes**
- C. Relieve pain, reduce anxiety, and improve perfusion**
- D. Initiate cardiac monitoring and schedule follow-ups**

**10. What is a potential consequence of untreated ischemia in myocardial tissue?**

- A. Increased blood flow**
- B. Myocardial infarction**
- C. Improved oxygen delivery**
- D. Reversal of necrosis**

## **Answers**

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

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## **Explanations**

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**1. What is the primary medication regimen anticipated for a patient with a suspected myocardial infarction?**

- A. Oxygen, aspirin, and nitroglycerin**
- B. Nitroglycerin, lorazepam, and morphine**
- C. Aspirin, furosemide, and dopamine**
- D. Aspirin, nitroprusside, and oxygen**

The primary medication regimen anticipated for a patient with a suspected myocardial infarction includes oxygen, aspirin, and nitroglycerin. This combination is aimed at addressing the immediate needs of the patient experiencing a heart attack. Oxygen is administered to ensure adequate tissue perfusion and oxygenation, especially if the patient presents with signs of hypoxia. Aspirin plays a crucial role in inhibiting platelet aggregation, which helps to prevent further clot formation and reduces the severity of the myocardial injury. Nitroglycerin is used to relieve chest pain and to relieve myocardial ischemia by dilating coronary arteries, thus improving blood flow to the heart muscle. These three components work synergistically to improve outcomes during the acute phase of a myocardial infarction, stabilizing the patient and minimizing damage to the heart. Overall, this combination is the standard initial treatment protocol in emergency settings for suspected myocardial infarctions, as it focuses on both symptom relief and the reduction of complications associated with myocardial ischemia.

**2. Which of the following best describes the role of nitric oxide in preventing atherosclerosis?**

- A. It causes arterial dilation**
- B. It inhibits cholesterol absorption**
- C. It promotes clotting factors**
- D. It stimulates muscle contraction**

Nitric oxide plays a crucial role in cardiovascular health, particularly in the prevention of atherosclerosis, by causing arterial dilation. This process is essential because nitric oxide is produced by endothelial cells lining the blood vessels and acts as a potent vasodilator. When blood vessels dilate, it leads to improved blood flow and reduced vascular resistance. This helps maintain healthy blood pressure levels and minimizes the stress on the arterial walls, which can contribute to the development of atherosclerosis. In addition to promoting vasodilation, nitric oxide also has other protective functions, such as reducing platelet aggregation and inhibiting the adhesion of white blood cells to the endothelium, further contributing to its atheroprotective role. However, in this context, the primary mechanism by which nitric oxide helps prevent atherosclerosis is through its ability to cause arterial dilation, thereby promoting better vascular health and counteracting the pathological processes that lead to the disease.

**3. Which interventional procedure may be necessary for a patient with significant coronary artery blockage?**

- A. Coronary artery bypass graft (CABG)**
- B. Endarterectomy**
- C. Angioplasty only**
- D. Transcatheter aortic valve replacement**

The choice of a coronary artery bypass graft (CABG) is appropriate for a patient with significant coronary artery blockage because this procedure is specifically designed to restore blood flow to the heart muscle when there are severe blockages in the coronary arteries. In cases where arteries are narrowed or blocked, CABG can reroute blood flow using a graft taken from another part of the body, such as a vein in the leg or an artery in the chest, thereby bypassing the obstruction and alleviating symptoms like angina or reducing the risk of heart attack. This intervention is often recommended when there is extensive blockage in multiple arteries, or if the blockage is located in areas that are not amenable to other treatments, such as angioplasty or stenting. CABG has proven to improve outcomes in terms of survival and quality of life in patients with significant coronary artery disease. In contrast, endarterectomy is generally used for carotid artery disease rather than coronary artery disease. Angioplasty, while a less invasive option for opening blocked arteries, may not be suitable for all patients, especially those with multiple blockages or complex coronary anatomy. Transcatheter aortic valve replacement focuses on treating valvular heart disease rather than direct coronary artery blockage, making it unrelated to the

**4. How is cardiac output defined in relation to heart function?**

- A. As the average amount of blood ejected during one complete cardiac cycle**
- B. As the product of stroke volume and heart rate**
- C. As the electrical activity of the heart measured continuously**
- D. As the mean arterial blood pressure multiplied by resting heart rate**

Cardiac output is defined as the product of stroke volume and heart rate because it quantifies the amount of blood the heart pumps in a minute. Stroke volume refers to the volume of blood ejected from the heart with each contraction, while heart rate is the number of times the heart beats in one minute. Thus, when you multiply stroke volume (the blood ejected per beat) by heart rate (the number of beats per minute), you get cardiac output, which is typically measured in liters per minute. Understanding cardiac output is crucial in assessing heart function, particularly in situations like acute coronary syndrome, where the heart's ability to pump effectively can be compromised. Consequently, calculating cardiac output allows healthcare providers to evaluate the capacity of the heart to meet the body's demands for blood and oxygen. This parameter is essential for monitoring patients' conditions and determining necessary interventions in cardiac care.

## 5. What parameter is crucial to monitor in a patient recovering from myocardial infarction?

- A. Blood glucose levels
- B. Troponin levels**
- C. Creatinine levels
- D. Liver function tests

Monitoring troponin levels in a patient recovering from a myocardial infarction is crucial because troponins are proteins released when the heart muscle is damaged. Elevated troponin levels indicate ongoing myocardial injury, which can help assess the extent of damage and guide treatment decisions. As these levels begin to decline, it suggests that the myocardial injury is stabilizing, and the patient is recovering. This key marker allows healthcare providers to evaluate the effectiveness of interventions and the recovery progress of the patient. While glucose levels, creatinine levels, and liver function tests provide valuable information in a holistic assessment of the patient, they are not specific indicators of myocardial injury or the recovery from an acute coronary syndrome. Blood glucose might be monitored due to its importance in overall metabolic control, especially in patients with diabetes. Creatinine levels can indicate kidney function, which is important in patients with cardiovascular issues but do not directly relate to cardiac recovery. Liver function tests can indicate hepatic health, yet they are not directly involved in assessing cardiac recovery. Thus, troponin levels are the most relevant parameter to monitor in this context.

## 6. How does angiotensin II increase the workload of the heart?

- A. By increasing the peripheral vascular resistance**
- B. By causing dysrhythmias as a result of hyperkalemia
- C. By reducing the contractility of the myocardium
- D. By stimulating the sympathetic nervous system

Angiotensin II plays a critical role in the regulation of blood pressure and fluid balance, primarily by acting as a potent vasoconstrictor. When angiotensin II increases peripheral vascular resistance, it narrows blood vessels, leading to elevated blood pressure. This increase in resistance forces the heart to pump harder to maintain adequate blood flow and pressure throughout the body. As the heart works against this heightened resistance, the workload significantly increases. This can be particularly detrimental in the context of acute coronary syndrome, where the heart may already be compromised. Consequently, the workload on the heart is a crucial factor that can exacerbate existing issues such as ischemia or heart failure. The other options would not directly explain the increased workload of the heart. Angiotensin II does not directly cause dysrhythmias; while electrolyte imbalances can have this effect, it is not the primary mechanism through which angiotensin II impacts heart workload. Additionally, angiotensin II is known to enhance contractility, not reduce it, which contradicts the third option. Finally, although angiotensin II does stimulate the sympathetic nervous system, this pathway contributes to the overall cardiovascular response rather than being a direct cause of increased workload tied exclusively to resistance.

**7. Which ECG finding is most indicative of prolonged coronary occlusion?**

- A. Sinus tachycardia**
- B. Pathologic Q wave**
- C. Prolonged PR interval**
- D. Fibrillatory P waves**

The presence of a pathologic Q wave on an ECG is considered a significant indicator of prolonged coronary occlusion, typically reflecting an area of myocardial necrosis. When there is a sustained blockage in the coronary arteries, it can lead to a lack of blood flow and oxygen to the heart muscle. This damage can result in the death of heart tissue, which is what pathologic Q waves signify. Pathologic Q waves are characterized by their depth and duration; they are usually wider and deeper than normal Q waves found in healthy individuals. These waves develop in the leads corresponding to the area of infarction and indicate that a significant portion of muscle has been compromised due to extended ischemia. Therefore, their presence serves as an essential marker in diagnosing myocardial infarction, particularly when analyzing past heart damage tied to acute coronary syndrome. In contrast to pathologic Q waves, sinus tachycardia, prolonged PR intervals, and fibrillatory P waves are not specific indicators of myocardial necrosis and do not provide the same level of information regarding prolonged coronary occlusion. Sinus tachycardia may occur in various scenarios, including anxiety or dehydration; a prolonged PR interval could indicate first-degree heart block but is not specific to coronary occlusion; and fibrillatory P

**8. What immediate intervention is required if a patient is unresponsive and suspected of having a heart attack?**

- A. Call for emergency help and begin CPR if there is no pulse**
- B. Administer nitroglycerin**
- C. Perform a secondary assessment**
- D. Wait until the patient regains consciousness**

In the scenario where a patient is unresponsive and suspected of having a heart attack, the immediate intervention of calling for emergency help and beginning CPR if there is no pulse is crucial. This action is based on the principles of basic life support. When a patient is unresponsive, it indicates a potential life-threatening emergency. Rapid response is essential because if a heart attack leads to cardiac arrest, the lack of blood circulation can result in irreversible damage or death within minutes. By calling for emergency assistance, you activate the emergency response system, which is vital for timely advanced care. Starting CPR immediately in the absence of a pulse helps maintain blood flow to vital organs, particularly the brain and heart, until advanced medical personnel arrive. Additionally, performing a secondary assessment or administering medication like nitroglycerin are not appropriate immediate interventions in this scenario. The priority is to ensure the patient's airway, breathing, and circulation are addressed, making CPR and seeking help the most critical steps to take in this life-threatening situation. Waiting for the patient to regain consciousness is dangerous, as it delays potentially lifesaving interventions.

## 9. What are the primary goals of nursing care in a patient with ACS?

- A. Maintain fluid balance and prevent infection**
- B. Increase physical activity and promote diet changes**
- C. Relieve pain, reduce anxiety, and improve perfusion**
- D. Initiate cardiac monitoring and schedule follow-ups**

The primary goals of nursing care in a patient with Acute Coronary Syndrome (ACS) focus on addressing the immediate and critical needs of the patient. Relieving pain is essential because it helps mitigate the discomfort associated with cardiac events, which can also reduce myocardial oxygen demand. Additionally, reducing anxiety is a crucial aspect of care, as anxiety can exacerbate feelings of pain and distress, potentially leading to further physiological issues. Improving perfusion is vital since ACS often results in compromised blood flow to the heart due to blocked coronary arteries. By improving blood flow, the risk of further myocardial damage is reduced, and the overall function of the heart can be preserved. This holistic approach to managing the symptoms and physiological effects of ACS is why pain relief, anxiety reduction, and improved perfusion are prioritized in nursing care. In contrast, while maintaining fluid balance, preventing infection, increasing physical activity, or monitoring cardiac status may be relevant in broader contexts of patient care, they do not specifically address the immediate and critical needs of a patient experiencing an ACS event. The focus during this acute phase is on stabilizing the patient and minimizing further cardiac damage, making the relief of pain and distress paramount.

## 10. What is a potential consequence of untreated ischemia in myocardial tissue?

- A. Increased blood flow**
- B. Myocardial infarction**
- C. Improved oxygen delivery**
- D. Reversal of necrosis**

Untreated ischemia in myocardial tissue can lead to myocardial infarction, which occurs when there is a prolonged lack of blood flow and oxygen to a portion of the heart muscle. Ischemia typically results from the blockage of coronary arteries, often due to atherosclerosis or a blood clot. If blood flow is not restored, the affected heart muscle cells begin to die due to the deprivation of oxygen and nutrients, culminating in a heart attack or myocardial infarction. This process is critical because the heart relies on a continuous supply of oxygen-rich blood to function effectively. Once the heart tissue is irreversibly damaged from ischemia, it cannot be reversed, which emphasizes the urgency of addressing ischemic episodes promptly. Recognizing and treating ischemia early can prevent the progression to myocardial infarction and protect heart function.

# 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](mailto:hello@examzify.com).**

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

**<https://nclexacutecoronarysyndrome.examzify.com>**

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

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