

FCM Critical Care 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

- 1. Which factor primarily controls PaO₂ levels?**
 - A. Minute ventilation**
 - B. Positive end-expiratory pressure (PEEP)**
 - C. Respiratory rate**
 - D. Tidal volume**
- 2. What is the rationale behind using a low tidal volume strategy in ARDS management?**
 - A. To reduce ventilator-induced lung injury**
 - B. To increase lung capacity**
 - C. To facilitate sedation**
 - D. To enhance airway pressure**
- 3. Which electrolyte disturbance can significantly affect cardiac function?**
 - A. Potassium imbalance**
 - B. Sodium imbalance**
 - C. Phosphate imbalance**
 - D. Chloride imbalance**
- 4. What can be a consequence of prolonged mechanical ventilation in critically ill patients?**
 - A. Decreased length of stay**
 - B. Physical trauma**
 - C. Poly-muscular weakness**
 - D. Increased stamina**
- 5. Which of the following is a complication of hyperglycemia in critically ill patients?**
 - A. Decreased length of hospital stay**
 - B. Increased mortality rate**
 - C. Improved ventilator outcomes**
 - D. Lower rates of nosocomial infections**

- 6. What type of shock is associated with "squeeze issues" leading to hypotension?**
- A. Hypovolemic shock**
 - B. Cardiogenic shock**
 - C. Vasodilatory/distributive shock**
 - D. Obstructive shock**
- 7. What should be considered for a patient experiencing tachycardia due to hypovolemia?**
- A. Antibiotics**
 - B. Intravenous fluid boluses**
 - C. Corticosteroids**
 - D. Immediate intubation**
- 8. What is the target blood glucose range in critically ill patients?**
- A. 100-120 mg/dL**
 - B. 140-180 mg/dL**
 - C. 180-220 mg/dL**
 - D. 220-250 mg/dL**
- 9. What is a common misconception about palliative care?**
- A. It allows patients to feel better**
 - B. It only focuses on pain relief**
 - C. It is synonymous with hospice care**
 - D. It is available for patients of all ages**
- 10. What are two independent risk factors for stress-induced peptic ulcer bleeding?**
- A. Use of glucocorticoids and liver disease**
 - B. Being on a ventilator for >48 hours and coagulopathy**
 - C. Presence of diabetes and obesity**
 - D. Age over 65 and history of ulcers**

Answers

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

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Explanations

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1. Which factor primarily controls PaO₂ levels?

- A. Minute ventilation
- B. Positive end-expiratory pressure (PEEP)**
- C. Respiratory rate
- D. Tidal volume

The factor that primarily controls PaO₂ levels is more accurately minute ventilation. Minute ventilation, which is the total volume of air ventilated per minute, plays a central role in determining the amount of oxygen that enters the alveoli and, consequently, the amount of oxygen available for diffusion into the bloodstream, impacting PaO₂ levels. While positive end-expiratory pressure (PEEP) does influence oxygenation, it mainly functions by preventing alveolar collapse at the end of expiration, thereby increasing functional residual capacity and improving lung recruitment. This can enhance ventilation-perfusion matching and increase PaO₂ levels indirectly. However, it is not the primary determinant of PaO₂; rather, it is a supportive strategy that may help maintain or improve oxygenation. The respiratory rate and tidal volume also factor into gas exchange, as they influence minute ventilation; however, isolated changes in either of these parameters may not have as significant a direct impact on PaO₂ as minute ventilation as a whole. Therefore, while the mechanisms of other options might contribute to the overall process of oxygenation, minute ventilation is the most critical factor in controlling PaO₂ levels directly.

2. What is the rationale behind using a low tidal volume strategy in ARDS management?

- A. To reduce ventilator-induced lung injury**
- B. To increase lung capacity
- C. To facilitate sedation
- D. To enhance airway pressure

A low tidal volume strategy in the management of Acute Respiratory Distress Syndrome (ARDS) is primarily aimed at reducing ventilator-induced lung injury. This approach involves using smaller volumes of air delivered with each breath, which minimizes the risk of over-distention of vulnerable alveoli and helps prevent further lung injury. In ARDS, the lungs are markedly inflamed and stiff, and traditional ventilation strategies using higher tidal volumes can lead to barotrauma or volutrauma, exacerbating existing damage and impairing gas exchange. By adopting a low tidal volume strategy, clinicians can help protect the lung parenchyma, support better lung recruitment, and improve patients' overall oxygenation without creating additional stress on the respiratory system. This strategy aligns with evidence gathered from studies demonstrating that patients managed with lower tidal volumes experience improved outcomes, including decreased mortality rates.

3. Which electrolyte disturbance can significantly affect cardiac function?

- A. Potassium imbalance**
- B. Sodium imbalance**
- C. Phosphate imbalance**
- D. Chloride imbalance**

Potassium imbalance plays a crucial role in cardiac function due to its direct impact on the heart's electrical activity. Potassium is essential for the generation and conduction of electrical impulses within the heart. Abnormal potassium levels, whether hyperkalemia (elevated potassium) or hypokalemia (lowered potassium), can lead to significant arrhythmias, altered heart rates, and even cardiac arrest. In hyperkalemia, the elevated potassium levels can result in a decreased resting membrane potential, making cardiac myocytes more depolarized and leading to disturbances in the heart rhythm. Conversely, hypokalemia can result in increased myocardial excitability and potentially dangerous rhythms. While sodium, phosphate, and chloride imbalances can have various physiological effects, their direct impact on cardiac electrical activity is not as pronounced as that of potassium. Thus, potassium imbalance stands out as particularly critical for maintaining normal cardiac function, making it the correct answer in this context.

4. What can be a consequence of prolonged mechanical ventilation in critically ill patients?

- A. Decreased length of stay**
- B. Physical trauma**
- C. Poly-muscular weakness**
- D. Increased stamina**

Prolonged mechanical ventilation in critically ill patients can lead to poly-muscular weakness, which refers to generalized weakness affecting multiple muscle groups. This condition, often termed critical illness myopathy or critical care neuropathy, arises due to various factors inherent in extended periods of ventilation, such as disuse atrophy, prolonged immobility, and the effects of certain medications like corticosteroids. The physiological impact of mechanical ventilation, particularly in the context of sedation and immobilization, contributes significantly to muscle deconditioning. Additionally, the disruption of the neuromuscular junction and muscle fiber pathology can further exacerbate this weakness. Consequently, many patients who have been ventilated for an extended period may experience difficulty in weaning off the ventilator and may require extensive rehabilitative efforts to regain muscle strength and function. In contrast, options related to decreased length of stay and increased stamina are misleading in the context of prolonged mechanical ventilation. Such interventions do not typically enhance recovery but instead can lead to longer stays and complications. Physical trauma, while possible, is not a direct result of mechanical ventilation but rather related to other factors in critical care environments.

5. Which of the following is a complication of hyperglycemia in critically ill patients?

A. Decreased length of hospital stay

B. Increased mortality rate

C. Improved ventilator outcomes

D. Lower rates of nosocomial infections

Hyperglycemia in critically ill patients is associated with several adverse effects, one of which is an increased mortality rate. Elevated blood glucose levels can lead to a hyperglycemic environment that exacerbates stress and inflammation in the body, affecting the immune response and healing processes. In critical care settings, this can result in poorer outcomes, including a higher likelihood of complications, prolonged recovery times, and ultimately, increased mortality. In critically ill patients, hyperglycemia is linked to metabolic dysregulation and can worsen existing conditions and complications, contributing to sepsis, organ dysfunction, and other severe issues. Studies have shown that maintaining tighter glycemic control in these patients can lead to improved survival rates, demonstrating the crucial role that glucose management plays in critical care. The other options, such as decreased length of hospital stay, improved ventilator outcomes, and lower rates of nosocomial infections, do not accurately reflect the consequences of hyperglycemia in this patient population. Instead, hyperglycemia is often associated with extended hospital stays, compromised respiratory function, and an increased risk of infections, which all drive the mortality rates higher among critically ill patients.

6. What type of shock is associated with "squeeze issues" leading to hypotension?

A. Hypovolemic shock

B. Cardiogenic shock

C. Vasodilatory/distributive shock

D. Obstructive shock

The correct answer highlights that "squeeze issues" in this context refer to the heart's ability to pump effectively. Vasodilatory or distributive shock is characterized by inadequate blood flow due to widespread vasodilation, often from conditions like sepsis or anaphylaxis. In these scenarios, even if the heart contracts normally, the massively dilated vascular beds reduce systemic vascular resistance, leading to a drop in blood pressure. This contrasts with other types of shock. For example, hypovolemic shock involves a decrease in circulating blood volume, cardiogenic shock is related to the heart's failure to pump effectively due to myocardial infarction or other cardiac problems, and obstructive shock occurs when there are physical obstructions to blood flow (like tension pneumothorax or cardiac tamponade). While these may all cause hypotension, the term "squeeze issues" aligns more specifically with the mechanisms involved in distributive shock, where vasodilation significantly impacts blood pressure, not merely the heart's contractility.

7. What should be considered for a patient experiencing tachycardia due to hypovolemia?

- A. Antibiotics**
- B. Intravenous fluid boluses**
- C. Corticosteroids**
- D. Immediate intubation**

In cases of tachycardia associated with hypovolemia, the primary concern is restoring the patient's circulating blood volume to improve cardiac output and reduce heart rate. Intravenous fluid boluses are critical in this scenario, as they directly address the underlying cause of hypovolemia. By administering fluids, you can help replenish lost volume, subsequently improving perfusion to vital organs, decreasing the workload on the heart, and consequently helping to stabilize the heart rate. Addressing hypovolemia through fluid resuscitation is fundamental in critical care management, particularly in cases of severe dehydration, hemorrhagic shock, or any condition leading to significant fluid loss. The fluid therapy not only helps alleviate the symptoms of tachycardia but also prevents further complications that can arise from severe low blood volume. Other interventions, while they may have their own roles in different contexts, do not directly impact the immediate management of tachycardia due to hypovolemia.

8. What is the target blood glucose range in critically ill patients?

- A. 100-120 mg/dL**
- B. 140-180 mg/dL**
- C. 180-220 mg/dL**
- D. 220-250 mg/dL**

In critically ill patients, maintaining proper blood glucose levels is crucial for their recovery and overall health. Research and guidelines suggest that the target blood glucose range for these patients should be between 140 and 180 mg/dL. This range is considered optimal because it strikes a balance between minimizing the risks associated with hyperglycemia (high blood sugar) while avoiding the potential dangers of hypoglycemia (low blood sugar), which can lead to serious complications. The choice of this specific range is based on evidence indicating that stricter control (such as aiming for levels lower than 140 mg/dL) can increase the risk of hypoglycemia, especially in a critical care setting where patients may have altered metabolism and variable responses to insulin. Conversely, excessively high glucose levels have been associated with worse clinical outcomes, hence the rationale for avoiding levels higher than 180 mg/dL. The target range emphasizes the importance of careful monitoring and management of blood glucose levels in critically ill patients to support their physiological needs and enhance recovery while mitigating potential risks.

9. What is a common misconception about palliative care?

- A. It allows patients to feel better
- B. It only focuses on pain relief
- C. It is synonymous with hospice care**
- D. It is available for patients of all ages

A common misconception about palliative care is that it is synonymous with hospice care. While the two share similarities, particularly in their focus on providing comfort and support to patients, they serve different purposes and are applicable at different stages of illness. Palliative care is designed to enhance the quality of life for patients facing serious illnesses, regardless of the stage of the disease or the need for curative treatment. It is appropriate for patients of all ages and can be provided alongside curative therapies. In contrast, hospice care is specifically for patients who are in the final stages of a terminal illness and where the focus shifts away from curative measures towards comfort and end-of-life care. Understanding the distinction is crucial for both patients and healthcare providers, as it helps guide appropriate care decisions and ensures that patients receive the most suitable level of support based on their individual circumstances.

10. What are two independent risk factors for stress-induced peptic ulcer bleeding?

- A. Use of glucocorticoids and liver disease
- B. Being on a ventilator for >48 hours and coagulopathy**
- C. Presence of diabetes and obesity
- D. Age over 65 and history of ulcers

The correct answer highlights two critical independent risk factors for stress-induced peptic ulcer bleeding: being on a ventilator for more than 48 hours and coagulopathy. Patients who are on mechanical ventilation for an extended period, specifically over 48 hours, are at higher risk of developing stress ulcers due to physiological stress. Mechanical ventilation tends to reflect a severe underlying condition, often accompanied by systemic stress responses, which contribute to mucosal injury and ulcer formation in the stomach. Coagulopathy represents another significant risk factor, as it affects the body's ability to form clots and repair injuries effectively. In critically ill patients, the prevalence of coagulopathy can increase, leading to higher chances of bleeding, including from stress-induced mucosal lesions. This interplay of being critically ill and having impaired hemostasis presents a compelling risk for significant morbidity. Other options, while they may present certain risks in different contexts, do not specifically align with the independent risk factors recognized for stress-induced peptic ulcer bleeding. Understanding these factors is essential for preventing complications in critically ill patients.

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://fcmcriticalcare.examzify.com>

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