

AACN ECCO Pulmonary 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. For a patient experiencing worsening chest pain on deep breathing and orthopnea, what nursing intervention should be anticipated?**
 - A. Perform a bedside echocardiogram**
 - B. Administer furosemide**
 - C. Increase oxygen flow rate**
 - D. Initiate cardiac monitoring**
- 2. Which condition should the nurse monitor for in a patient with COPD on PEEP experiencing sudden chest pain?**
 - A. Increased lung compliance**
 - B. Decreased blood pressure**
 - C. Unstable blood sugar levels**
 - D. Decreased tidal volume**
- 3. What complication should a nurse closely monitor for following a bronchoscopy?**
 - A. Dysrhythmias**
 - B. Severe coughing**
 - C. Hyperventilation**
 - D. Pneumothorax**
- 4. Which condition is most commonly linked with ventilator-associated pneumonia?**
 - A. Asthma**
 - B. Chronic obstructive pulmonary disease**
 - C. Acute respiratory distress syndrome**
 - D. Heart failure**
- 5. What symptom improvement is primarily observed with the use of beta-agonists?**
 - A. Decreased mucus production**
 - B. Improved airflow**
 - C. Reduced chest tightness**
 - D. Increased respiratory rate**

6. What is the purpose of using incentive spirometry?

- A. To measure oxygen saturation**
- B. To encourage deep breathing and expand the lungs**
- C. To evaluate lung compliance**
- D. To deliver medication**

7. What should the nursing priority be for a patient before thoracentesis?

- A. Position the patient lying flat**
- B. Continually monitor vital signs**
- C. Administer pain medication**
- D. Ensure patient fasts for 12 hours**

8. In patients with respiratory distress, which vital sign changes should be closely monitored?

- A. Temperature fluctuations**
- B. SpO₂ changes and heart rate**
- C. Blood glucose levels**
- D. Urine output**

9. Which of the following is NOT a primary symptom of acute bronchitis?

- A. Recurrent wheezing**
- B. Fever**
- C. Copious sputum production**
- D. Chest pain**

10. When should a patient in the immediate postoperative period be given a nasal cannula or simple face mask?

- A. When requiring FiO₂ of 0.5 or more**
- B. When requiring FiO₂ of 0.4 or less**
- C. When showing signs of respiratory distress**
- D. When able to maintain oxygen saturation without assistance**

Answers

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

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Explanations

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1. For a patient experiencing worsening chest pain on deep breathing and orthopnea, what nursing intervention should be anticipated?

- A. Perform a bedside echocardiogram**
- B. Administer furosemide**
- C. Increase oxygen flow rate**
- D. Initiate cardiac monitoring**

In the context of a patient experiencing worsening chest pain upon deep breathing and orthopnea, administering furosemide is a pertinent intervention. These symptoms could indicate heart failure or fluid overload, where the presence of excess fluid in the lungs causes orthopnea and may lead to pleuritic chest pain due to inflammation or irritation of the pleura. Furosemide, a loop diuretic, helps to manage symptoms by promoting the excretion of excess fluid through diuresis. This can alleviate pulmonary congestion, subsequently reducing the inhalation discomfort and improving overall respiratory function. By effectively decreasing fluid retention, the administration of furosemide directly addresses the underlying issue that may be contributing to the patient's symptoms. Considering the other options: while monitoring cardiac activity is important in patients with chest pain, the primary intervention for symptoms suggestive of fluid overload is to alleviate that situation immediately, rather than just monitoring. Increasing the oxygen flow rate could provide supportive care, but it does not address fluid overload directly. Finally, a bedside echocardiogram may give valuable diagnostic information, but immediate symptom relief is a priority, making diuresis the more critical first-step intervention in this scenario.

2. Which condition should the nurse monitor for in a patient with COPD on PEEP experiencing sudden chest pain?

- A. Increased lung compliance**
- B. Decreased blood pressure**
- C. Unstable blood sugar levels**
- D. Decreased tidal volume**

In a patient with Chronic Obstructive Pulmonary Disease (COPD) who is undergoing Positive End-Expiratory Pressure (PEEP) therapy and experiences sudden chest pain, monitoring for decreased tidal volume is critical. PEEP enhances ventilation by preventing alveolar collapse at the end of expiration, which can improve oxygenation. However, if this patient experiences sudden chest pain, it may indicate a potential complication such as a pneumothorax or pulmonary embolism which can lead to decreased lung function. In such situations, the tidal volume, the amount of air moved into or out of the lungs with each breath, could be compromised due to decreased lung compliance or air-dynamic changes. Assessing tidal volume is essential as a reduction could signal inadequate gas exchange and respiratory failure, which needs immediate attention. Thus, vigilant monitoring of tidal volume in the context of sudden chest pain could provide crucial insights into the patient's respiratory status and the emergence of significant complications.

3. What complication should a nurse closely monitor for following a bronchoscopy?

- A. Dysrhythmias**
- B. Severe coughing**
- C. Hyperventilation**
- D. Pneumothorax**

Following a bronchoscopy, one of the key complications to monitor for is a pneumothorax. This procedure involves the insertion of a bronchoscope into the airways, which can potentially lead to the perforation of lung tissue. If this occurs, air can escape from the lung into the pleural space, resulting in a pneumothorax. Vigilance for this complication is crucial because it can lead to respiratory distress and requires prompt intervention, such as chest tube placement, to re-inflate the lung and restore normal breathing. Symptoms of a pneumothorax can include sudden chest pain and shortness of breath, so monitoring for these signs after the procedure is essential. Although dysrhythmias can occur during the procedure due to sedation or airway manipulation, they are typically less common than pneumothorax. Severe coughing may also be expected after the procedure due to irritation of the airway, and hyperventilation could be a response to anxiety or discomfort but is not as critical a complication as pneumothorax. Hence, monitoring specifically for pneumothorax is paramount in the immediate post-procedure care of a patient who has undergone bronchoscopy.

4. Which condition is most commonly linked with ventilator-associated pneumonia?

- A. Asthma**
- B. Chronic obstructive pulmonary disease**
- C. Acute respiratory distress syndrome**
- D. Heart failure**

Ventilator-associated pneumonia (VAP) is an infection that occurs in individuals who are mechanically ventilated, and it is closely associated with certain conditions that predispose patients to respiratory dysfunction and prolonged mechanical ventilation. Acute respiratory distress syndrome (ARDS) is considered one of the primary conditions linked with VAP due to its pathophysiological features. Patients with ARDS often require mechanical ventilation for oxygen support, as their lungs are compromised, leading to impaired gas exchange and increased susceptibility to infections due to factors such as prolonged intubation and impaired mucociliary function. These factors create an environment conducive to the development of pneumonia, especially VAP. In contrast, while asthma, chronic obstructive pulmonary disease (COPD), and heart failure can contribute to respiratory issues, they are not as direct a cause of VAP as ARDS. Patients with asthma may not need invasive ventilation as frequently, and COPD, while it may necessitate ventilation, usually does not carry the same elevated risk of VAP as ARDS. Heart failure could lead to pulmonary problems, but its link to VAP is less pronounced compared to the significant associations seen with ARDS.

5. What symptom improvement is primarily observed with the use of beta-agonists?

- A. Decreased mucus production**
- B. Improved airflow**
- C. Reduced chest tightness**
- D. Increased respiratory rate**

Beta-agonists are commonly used bronchodilators that primarily work by relaxing the smooth muscles in the airways, leading to dilation of the bronchial passages. This mechanism effectively improves airflow, making it easier for patients to breathe. When beta-agonists are administered, they can quickly relieve symptoms of bronchospasm and enhance pulmonary function tests by increasing the forced expiratory volume. Patients often experience a notable improvement in airflow almost immediately after the use of beta-agonists, which is crucial in managing acute asthma attacks or chronic obstructive pulmonary disease (COPD) exacerbations. The improved airflow is essential as it directly correlates with the patient's ability to ventilate effectively and deliver oxygen to the lungs. While other symptoms such as reduced chest tightness also improve with beta-agonists due to the alleviation of bronchospasm and improved airflow, the primary and most immediate benefit observed is the enhancement of airflow. This makes it an appropriate focus for understanding the role of beta-agonists in respiratory management.

6. What is the purpose of using incentive spirometry?

- A. To measure oxygen saturation**
- B. To encourage deep breathing and expand the lungs**
- C. To evaluate lung compliance**
- D. To deliver medication**

The primary purpose of incentive spirometry is to encourage deep breathing and promote lung expansion. This device is especially beneficial for patients who may be at risk for pulmonary complications, such as those recovering from surgery, particularly chest or abdominal procedures, or individuals with conditions that can lead to atelectasis (lung collapse). By using incentive spirometry, patients are motivated to take slow, deep breaths. This process helps to increase the volume of air in the alveoli, improves lung function, and prevents or reverses atelectasis. The visual feedback provided by the spirometer shows patients how well they are performing the breathing exercises, which can help motivate them to continue using the device regularly. The other options focus on different aspects of pulmonary care. Measuring oxygen saturation is crucial for assessing a patient's respiratory status but is not the primary function of incentive spirometry. Evaluating lung compliance involves assessing how easily the lungs can expand, which is typically done through other methods, such as pulmonary function tests. Delivering medication does occur in respiratory care but is not a function of incentive spirometry, which is solely designed for deep breathing exercises rather than for medication administration.

7. What should the nursing priority be for a patient before thoracentesis?

- A. Position the patient lying flat**
- B. Continually monitor vital signs**
- C. Administer pain medication**
- D. Ensure patient fasts for 12 hours**

The nursing priority for a patient before thoracentesis is to continuously monitor vital signs. This practice is vital because it allows the healthcare team to establish a baseline and immediately detect any changes or complications that may arise during the procedure. Monitoring vital signs can reveal signs of respiratory distress, changes in blood pressure, or other vital changes that could indicate potential complications such as pneumothorax or bleeding. While positioning the patient lying flat is generally not advisable during thoracentesis (as patients are often positioned upright with their arms resting comfortably to facilitate access to the pleural space), ensuring that the patient is in a comfortable and safe position can still be addressed after vital signs have been stabilized and monitored. Administering pain medication may be necessary for patient comfort, but it does not take precedence over ensuring hemodynamic stability and monitoring vital signs. Understanding the potential for pain is important, but it is secondary to assessing the patient's physiological status before and during the procedure. Ensuring the patient fasts for 12 hours is not typically required for thoracentesis, especially when the procedure is performed to relieve respiratory distress caused by pleural effusion, making this option irrelevant in this context. Prioritizing continuous monitoring of vital signs ensures the patient's safety and

8. In patients with respiratory distress, which vital sign changes should be closely monitored?

- A. Temperature fluctuations**
- B. SpO₂ changes and heart rate**
- C. Blood glucose levels**
- D. Urine output**

In patients experiencing respiratory distress, monitoring SpO₂ changes and heart rate is crucial because these parameters provide direct insights into the patient's respiratory function and overall hemodynamic status. The SpO₂ level reflects the oxygen saturation of hemoglobin in the blood, which is vital for ensuring that the body's tissues receive adequate oxygen. In respiratory distress, a decrease in SpO₂ indicates impaired gas exchange and potential hypoxemia, which necessitates urgent intervention to restore adequate oxygen levels. Additionally, heart rate can be an important indicator of the body's response to hypoxemia and stress. An increased heart rate may suggest compensatory mechanisms in response to decreased oxygen levels or underlying anxiety and distress. Conversely, bradycardia can indicate severe metabolic disturbances or increased vagal tone related to respiratory issues. Thus, monitoring these two vital signs helps determine the severity of the respiratory condition and guides treatment decisions. Temperature fluctuations, blood glucose levels, and urine output, while important in managing a patient's overall health, do not provide immediate or direct information about respiratory function in the context of respiratory distress.

9. Which of the following is NOT a primary symptom of acute bronchitis?

- A. Recurrent wheezing**
- B. Fever**
- C. Copious sputum production**
- D. Chest pain**

Recurrent wheezing is not considered a primary symptom of acute bronchitis. Acute bronchitis typically manifests with symptoms such as a persistent cough, which may be accompanied by sputum production, and in some cases, fever and chest pain can occur, particularly if there is significant coughing or associated inflammation. While wheezing can happen, especially if there is bronchial hyperresponsiveness, it is more characteristic of conditions like asthma or chronic obstructive pulmonary disease rather than being a hallmark of acute bronchitis. In contrast, fever can indicate a viral or bacterial infection that often leads to acute bronchitis. Copious sputum production may occur, especially in cases where there is considerable mucus production due to inflammation and irritation of the bronchial tubes. Chest pain can arise from the effort of coughing or due to inflammation of the surrounding tissues. Therefore, while wheezing can be present in some cases, it does not stand out as a primary symptom of acute bronchitis.

10. When should a patient in the immediate postoperative period be given a nasal cannula or simple face mask?

- A. When requiring FiO₂ of 0.5 or more**
- B. When requiring FiO₂ of 0.4 or less**
- C. When showing signs of respiratory distress**
- D. When able to maintain oxygen saturation without assistance**

In the immediate postoperative period, a nasal cannula or simple face mask is typically indicated when the patient requires a fraction of inspired oxygen (FiO₂) of 0.4 or less. Using a nasal cannula or simple face mask is appropriate in situations where patients need supplemental oxygen but do not have severe respiratory distress or require very high levels of oxygen. An FiO₂ of 0.4 indicates that the patient is still capable of maintaining adequate oxygenation with mild to moderate supplemental oxygen, which can be efficiently delivered through these devices. They are comfortable and allow for adequate oxygen delivery without the need for more invasive methods, such as high-flow nasal cannula or mechanical ventilation, which are reserved for more critical situations. In contrast, other scenarios presented in the options might suggest a higher level of respiratory support or intervention. If a patient were to require higher FiO₂ levels, for instance, a more advanced form of oxygen delivery might be necessary. Likewise, if a patient is exhibiting signs of respiratory distress, a more aggressive approach to oxygenation could be warranted to ensure adequate perfusion and oxygenation. Lastly, patients who can maintain oxygen saturation without assistance generally do not need supplemental oxygen, indicating they are stabilizing well enough postoperatively.

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://aacneccopulmonary.examzify.com>

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

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