

Pulmonary Emergencies Practice Test (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. Antibiotics are indicated in COPD exacerbations when there is increased sputum purulence. Which option best reflects this criterion?**
 - A. Increased dyspnea**
 - B. Increased sputum purulence**
 - C. Cough**
 - D. Fever**

- 2. Ventilatory/respiratory failure occurs when**
 - A. Lungs and respiratory muscles cannot move enough air to adequately oxygenate and remove CO₂**
 - B. Oxygenation is adequate but CO₂ removal is excessive**
 - C. There is only nasal congestion**
 - D. There is excessive air movement without gas exchange impairment**

- 3. Which condition is included in the chest pain differential diagnosis for acute dyspnea?**
 - A. Pulmonary embolism**
 - B. Migraine**
 - C. Gastroesophageal reflux without chest pain**
 - D. Appendicitis**

- 4. What radiographic finding is commonly seen in COPD?**
 - A. Hyperinflation with flattened diaphragm**
 - B. Consolidation in lobes**
 - C. Large pleural effusion**
 - D. Normal chest**

- 5. Which term describes an exacerbation of a known respiratory disease?**
 - A. Asthma attack**
 - B. Pneumonia**
 - C. Asthma exacerbation**
 - D. COPD flare**

- 6. Which option is described as the definitive treatment for pneumothorax in the material?**
- A. Oxygen**
 - B. Small-bore catheter**
 - C. Tube thoracostomy**
 - D. Needle decompression**
- 7. To avoid re-expansion pulmonary edema, do not remove more than how much pleural fluid?**
- A. 0.5 L**
 - B. 1.5 L**
 - C. 2.5 L**
 - D. 3.0 L**
- 8. What does the pneumonia severity index predict in CAP?**
- A. Predicts morbidity and mortality and the need of hospitalization in CAP**
 - B. Predicts antibiotic resistance**
 - C. Predicts the exact length of hospital stay**
 - D. Predicts likelihood of pleural effusion**
- 9. On CT angiography, a filling defect in the pulmonary artery indicates which diagnosis?**
- A. Pulmonary embolism**
 - B. Pneumothorax**
 - C. Pulmonary edema**
 - D. Lung abscess**
- 10. In a patient who is decompensating quickly from a pneumothorax, what immediate intervention is recommended?**
- A. Oxygen**
 - B. Small-bore catheter**
 - C. 14-16 G needle decompression**
 - D. Chest tube attached to water seal**

Answers

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

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Explanations

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1. Antibiotics are indicated in COPD exacerbations when there is increased sputum purulence. Which option best reflects this criterion?

- A. Increased dyspnea
- B. Increased sputum purulence**
- C. Cough
- D. Fever

The key idea is that antibiotics in COPD exacerbations are guided by evidence of a bacterial infection, and sputum purulence is a direct marker of that. Purulent sputum indicates a bacterial component to the flare, which helps justify antibiotic therapy. Often guidelines require purulence together with another sign of increased disease activity, but purulence itself is the strongest clue among the options given. The other signs—more difficult breathing, cough, or fever—can occur for many reasons and are not by themselves as specific to bacterial infection as purulence is. So describing increased sputum purulence best reflects the criterion for using antibiotics in this scenario.

2. Ventilatory/respiratory failure occurs when

- A. Lungs and respiratory muscles cannot move enough air to adequately oxygenate and remove CO₂**
- B. Oxygenation is adequate but CO₂ removal is excessive
- C. There is only nasal congestion
- D. There is excessive air movement without gas exchange impairment

Ventilatory failure happens when the act of moving air into and out of the lungs is not adequate to meet the body's needs for oxygen delivery and CO₂ removal. If ventilation is insufficient, less oxygen reaches the blood and CO₂ isn't expelled effectively, leading to hypoxemia and often hypercapnia with possible acidosis. The best description is the one that states the lungs and respiratory muscles cannot move enough air to adequately oxygenate and remove CO₂, because it directly ties together both sides of gas exchange that ventilation controls. The other scenarios don't fit: having adequate oxygenation but excessive CO₂ removal would imply too much ventilation, not failure; nasal congestion alone doesn't cause the broad gas-exchange failure seen in respiratory failure; and excessive air movement with no gas exchange impairment means ventilation is working and gas exchange is intact, not a failure.

3. Which condition is included in the chest pain differential diagnosis for acute dyspnea?

- A. Pulmonary embolism**
- B. Migraine**
- C. Gastroesophageal reflux without chest pain**
- D. Appendicitis**

Acute dyspnea with chest pain should always raise concern for a cardiopulmonary emergency, and pulmonary embolism is a classic cause because a clot lodging in the pulmonary arteries creates a sudden mismatch between ventilation and perfusion and often irritates the pleura, producing pleuritic chest pain. This combination—sudden onset shortness of breath plus chest pain—fits PE especially when there are risk factors such as recent surgery or immobilization, cancer, pregnancy, or estrogen use. The presentation can be variable: some patients have marked hypoxemia with tachypnea and tachycardia, while the lungs may sound relatively normal on exam, which can make PE easy to miss unless it's specifically considered. Understanding this helps you to prioritize testing (for example, CT pulmonary angiography or a D-dimer-based strategy with clinical risk assessment) when the clinical picture suggests PE. Migraine typically involves headaches and neuro symptoms rather than acute chest pain with dyspnea. Gastroesophageal reflux can cause chest discomfort but does not usually present with acute dyspnea, and appendicitis is an abdominal condition with pain localized to the lower right quadrant rather than the chest.

4. What radiographic finding is commonly seen in COPD?

- A. Hyperinflation with flattened diaphragm**
- B. Consolidation in lobes**
- C. Large pleural effusion**
- D. Normal chest**

The key radiographic pattern in COPD is hyperinflation from air trapping, which causes the diaphragms to flatten. Chronic airway obstruction—whether from emphysema or chronic bronchitis—prevents complete exhalation, so the lungs stay enlarged and push the diaphragms downward, giving a low, flattened appearance on a chest X-ray. You may also see an increased retrosternal airspace on the lateral view and bibasilar atelectasis or bullae in emphysema. Consolidation would point toward infection, a large pleural effusion would blur or blunt the costophrenic angles and reduce rather than reflect hyperinflation, and a normal chest would not show the characteristic hyperinflation of COPD.

5. Which term describes an exacerbation of a known respiratory disease?

- A. Asthma attack
- B. Pneumonia
- C. Asthma exacerbation**
- D. COPD flare

An exacerbation is a worsening beyond a patient's usual day-to-day variability in a chronic respiratory disease. In asthma, triggers such as viruses, allergens, or irritants cause increased airway inflammation and bronchoconstriction, leading to more cough, wheeze, shortness of breath, and chest tightness. When these symptoms worsen enough to change management or require more intensive therapy, we label it an asthma exacerbation. The term "asthma attack" is common in everyday language and describes an acute episode, but the formal clinical description that fits the stem is an asthma exacerbation. Pneumonia is an infection with inflammation of the lung tissue, not a flare of a chronic condition, and a COPD flare is the equivalent term used for COPD rather than asthma, so the asthma-specific exacerbation best fits the question.

6. Which option is described as the definitive treatment for pneumothorax in the material?

- A. Oxygen
- B. Small-bore catheter
- C. Tube thoracostomy**
- D. Needle decompression

The key idea is that the definitive way to treat a pneumothorax is to physically remove the air from the pleural space and re-expand the lung. A chest tube (tube thoracostomy) provides continuous drainage of air and allows the lung to re-expand, addressing both the leak and the collapsed lung. Oxygen helps symptoms and speeds air absorption but does not by itself resolve the pneumothorax. Needle decompression is an emergency, lifesaving maneuver used to quickly relieve pressure in a tension pneumothorax, but it's not considered the definitive fix. A small-bore catheter can drain air, but its effectiveness may be limited in larger or persistent pneumothoraces, making chest tube drainage the more reliable definitive option.

7. To avoid re-expansion pulmonary edema, do not remove more than how much pleural fluid?

- A. 0.5 L
- B. 1.5 L**
- C. 2.5 L
- D. 3.0 L

Re-expansion pulmonary edema happens when the lung rapidly re-expands after removing a large amount of pleural fluid, causing capillary leak and fluid buildup in the lungs. To reduce this risk, limit how much fluid is removed in one session. The commonly taught maximum is about 1.5 liters of pleural fluid drained in a single procedure. Draining more than that markedly increases the chance of edema. So, the best answer is 1.5 liters. Draining only 0.5 liter would be safer but not the standard limit, while draining 2.5 or 3.0 liters would be too much and raise the risk substantially.

8. What does the pneumonia severity index predict in CAP?

- A. Predicts morbidity and mortality and the need of hospitalization in CAP**
- B. Predicts antibiotic resistance**
- C. Predicts the exact length of hospital stay**
- D. Predicts likelihood of pleural effusion**

The Pneumonia Severity Index is designed to estimate a patient's risk of adverse outcomes from community-acquired pneumonia and to guide disposition decisions. It combines factors such as age, comorbidities, vital signs, mental status, and select laboratory and radiographic findings to stratify patients into risk classes. Higher scores indicate greater risk of death and a stronger indication for hospital admission, while lower scores support outpatient management. It does not predict antibiotic resistance, an exact length of hospital stay, or the likelihood of a pleural effusion. Those outcomes depend on different factors and aren't what the PSI was designed to measure.

9. On CT angiography, a filling defect in the pulmonary artery indicates which diagnosis?

- A. Pulmonary embolism**
- B. Pneumothorax**
- C. Pulmonary edema**
- D. Lung abscess**

A filling defect in a contrast-filled pulmonary artery on CT angiography reflects intraluminal obstruction of blood flow in the pulmonary circulation, most commonly caused by a thrombus lodging in the artery—pulmonary embolism. The contrast should outline the vessel lumen; when a clot occupies part of that lumen, it appears as a defect where the artery would normally fill with contrast. This finding is specific to an embolic occlusion rather than issues that affect the lung tissue or pleural space. For example, pneumothorax shows air in the pleural space with lung collapse, not a blockage within the pulmonary artery; pulmonary edema presents with diffuse interstitial or alveolar fluid changes; a lung abscess appears as a cavitory lesion with an air-fluid level in the lung parenchyma, not a intraluminal arterial defect.

10. In a patient who is decompensating quickly from a pneumothorax, what immediate intervention is recommended?

- A. Oxygen
- B. Small-bore catheter
- C. 14-16 G needle decompression**
- D. Chest tube attached to water seal

The immediate issue in a rapidly decompensating pneumothorax is a life-threatening tension physiology, where trapped air under pressure collapses the lung and impairs venous return to the heart. The fastest, lifesaving move is to decompress the chest with a large-bore needle (about 14-16 gauge) inserted into the chest—classically the second intercostal space at the midclavicular line—to vent the trapped air and relieve the pressure. This immediate relief helps restore circulation and breathing, buying time to place a definitive chest tube for ongoing drainage and lung re-expansion. Oxygen is important support, but it doesn't resolve the mechanical problem right away. A small-bore catheter can be used in stable cases but may be too slow for a rapidly decompensating tension pneumothorax, and a chest tube with a water seal is essential but comes after the immediate decompression to quickly relieve the life-threatening pressure.

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://pulmonaryemergencies.examzify.com>

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

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